

Welcome to the AST Sports Science 12 Week Max-OT On-Line Training Course. Over the next few months you will experience a totally new training approach that will guarantee a lifetime of results. This is exciting new territory and I am thrilled to be bringing this to you.

The Max-OT On-line Training Course is designed to teach you the Max-OT principles. This is the most effective way to get a full understanding on how to implement the most effective muscle-building training method. This training course is not just a workout program, it's an educational course that teaches you how to implement the principles and the science behind the effectiveness of this unique training approach.

Throughout this course there are numerous Max-OT training program examples. This is designed to give you a comfortable understanding of the structure of various Max-OT workouts. By the end of this course you will have the tools and the knowledge to implement and structure Max-OT workouts on your own.

Remember, this is a course designed to teach you the realm of Max-OT. Don't just blindly follow the workouts. Learn the whys and hows of building muscle the Max-OT way.

Now let's get started.

Max-OT - The Ultimate Muscle Building Approach

Welcome to the AST Sports Science 12 week Max-OT On-Line Training Course. We are about to embark on a 12 week journey that will change the way you approach building muscle forever. The goal here is to teach you the principles and techniques involved in Max-OT training. Learning these techniques and how to apply them will give you the most efficient tools for building the maximum amount of muscle in the shortest amount of time.

Max-OT will work for everyone. If you're not the most genetically gifted person Max-OT will accelerate muscle growth and strength faster than any other training method. If you are one the few genetic elites Max-OT will take advantage of your genetics and propel muscle growth more quickly than "normal" training methods. Male or female - it doesn't matter. Simply put, for building muscle Max-OT is the most effective way to train.

Whether you're looking to pack on a massive 50 pounds of muscle or a trim and tight 5 pounds, Max-OT is the most effective way to accomplish this. From the highest level competitor to the most casual lifter, Max-OT is the most sensible approach to reaching your goals in the shortest amount of time.

Not only will I cover training methods extensively, but I will also unravel the mental aspect of building muscle. I will dissect the psychological road blocks that are responsible for derailing most people that train from ultimately reaching their goals. We will get rid of bad habits and condition ourselves for efficiency, making everything we do a means to an end.

This will not be a "positive-thinking / positive attitude" brainwashing, but programming your mind for success can't be ignored. The last thing I want to do is build a following of positive thinkers that spend all their time, energy, and money "learning" how to be positive, but never producing. However, I want you to get results. I will present the psychological portion in a manner that will invoke action and produce these results.

Training For Results

Max-OT is all about training and getting results; making the most progress in the least amount of time. I'm sure all will agree that if you were given the choice of gaining 10 pounds of muscle in 2 months or in 2 years you would opt for the 2 months. Working out is fun, but let's not kid ourselves, what really makes it all worth it are the results it produces. More results - more enjoyment. Less results - less enjoyment, frustration, lost motivation, missed workouts, and many times, quitting all together.

Breaking this down even further, if you can fully stimulate a muscle for maximum growth in 30 minutes verses 90 minutes, which would you rather do? Let me tell you, I like working out, but if I can get better results in 1/3 the time - that's what I'm going to do. That is Max-OT. That is what it's all about.

One thing neat about this program is that it will be 12 weeks long. Just like a class in college. Each week a new section will be added that will further expand on the Max-OT principles and techniques. This approach will break down the entire program in steps for easy digestion. This way you have a greater chance of completing this course. It will be interactive in a way that will make you accountable to the most important person - yourself.

Now don't get antsy. We will dive right into training - even in this first session. But as the course proceeds you'll progressively learn more and more about how to make Max-OT work for you. How to get bigger, stronger, leaner, and smarter the fastest way possible.

The things you are about to learn, no matter how experienced you may be, will bring about an entire new outlook on training and building muscle as well as how you prioritize the activities of your life to achieve the results you're looking for.

Forget What You Think You Know About Working OutMax-OT is different, but it's not a bunch of new exercises that have never been done before. The approach is new and unique, but you'll be doing many of the same exercise you've always done - just differently. You will approach training with a new mindset, a new vigor, and most importantly a new "certainty".

Let's Go Back

Now I want you to think for a minute. In all the time that you have been training, at what point did you make the most impressive gains?

My guess is that you made your most impressive gains when you first started. Or should I say, when you first committed yourself to training on a regular basis. It's not uncommon for someone to gain 10 pounds of muscle the first month they start training. And 25 to 30 pounds their first year! Why is this?

Let's analyze this. When you are a beginner you certainly don't "know" how to train. Your form sucks, you're cheating in most exercises, and chances are you are always trying to see "how much" you can lift. Not only that, in most cases, you want results yesterday. You probably have some serious motivation working for you. Crude, but serious.

So, if you didn't know how to train and you did most of the exercises wrong, why did you make such impressive gains? But wait, let's look deeper into this question. Why do your gains slow down as you become more experienced at training? Shouldn't it be just the opposite? Shouldn't the more you learn about training mean the more progress you make?

Learn More - Get Less Results

It's kind of funny and kind of sad. For awhile you're content doing the basic movements - bench press, straight bar curls, squats and leg presses. You're making great gains and everybody is taking notice. Well, as you become more "experienced" you decide to read up a little - first mistake. You grab the latest magazine - and I use that term very loosely - and start learning all about the "training methods" the pro bodybuilders use.

Now, I'm here to tell you it's not a coincidence that right about the same time you started "getting smarter" and using the advanced training programs, was just about the same time gaining muscle became a lot more difficult, a lot slower process. It's also the same time the nagging injuries started to happen more often too. That's right, it's not a coincidence that the more intelligently you approached your training the less effective it became.

Now it's not the fact that you tried to increase your knowledge of training that is the problem. It's more of a combination of where you obtained your educational material and your abandonment of the basic training methods for a more "sophisticated" training approach that has suddenly stalled your gains.

As crazy as this sounds, this is the primary reason most people stop making gains. They deviate from the basic, most effective training methods and start using "advanced" training methods.

Friends - Trainers – Magazines

Where do most people learn about "how to workout"? Chances are you learned from one or all of these three sources - friends, a trainer at a gym, or, God forbid, out of the bodybuilding magazines. You're not any different than anyone else. That's just how it is.

You see, working out is not an organized sport with coaches and assistant coaches and organized practices and training drills. It doesn't work like that. You have to learn it on your own and the resources available to learn from are pretty slim and just about all are wrong (well maybe not wrong, but certainly not right). In fact, the "experts" that write the learning material were educated the same way you were, they were just articulate enough (this can be argued) to write about it in an organized format.

Sad to say, chances are you have been taught and are training wrong. And if not "wrong" certainly not the best way to maximize muscle growth.

Probably the most difficult part about Max-OT is ridding yourself of all the bad training knowledge that you have learned over the years. You have to not only re-educate yourself, but forget all the "bad" methods and approaches that you have done for so long. If you're new to working out then you are lucky. You will be learning the best training method right from the start. You will be fortunate enough not to have to break all the "bad" training habits.

An Open Mind And A Little Desire

So I'm asking you to approach Max-OT with a fresh and open mind. You want to really avoid the "shouldn't I do this", and "what about that" comments. Especially during these first few weeks. I am the teacher and no matter how long you have been training or how big and strong you are or how much "experience" you have, you are the student. This is critical in extracting the most from this program. Most people who train with weights, at one time or another, have gone through an ego driven phase. Now is the time to set that aside.

With this hierarchy understood, it will allow you to will lay the best foundation for learning and practicing Max-OT principles and techniques that I guarantee will allow you to build muscle and strength at a rate and to an extent you never knew possible.

The Max-OT Basics

4 to 6 - 6 to 9 - 2 to 3 Minutes - 30 to 40 Minutes - 5 to 7 Days

Max-OT follows a specific and proven set of parameters that are key to maximizing muscle growth. These specific parameters are the underlying core of Max-OT's physiological impact on muscle. If you remember one thing from this lesson remember this - **a muscle will only adapt (grow) if it is forced to do so.** The mechanics of Max-OT's are designed to force muscle to grow each and every workout. As far as I am concerned, if you aren't growing from each workout you're wasting your time.

In a nut shell, but nowhere near complete, you can summarize Max-OT like this:

1. Each workout should last approximately 30 to 40 minutes.
2. Train only 1 or 2 muscle groups per workout/day.
3. Do 6 to 9 total heavy sets per muscle group.
4. Do 4 to 6 reps per set.
5. Rest 2 to 3 minutes between sets. (STR)
6. Train each muscle group once every 5 to 7 days. (ITR)
7. Take a 1 week break from training every 8 to 10 weeks.

As you can see there is a small bit of leeway in each of these rules. A very small bit. Max-OT is designed specifically around these parameters. **To be completely successful and get the maximum benefits from Max-OT you must follow these rules exactly as they are presented.** You cannot adapt the rules you like and discard the ones you don't. Each parameter depends on and works with the other parameters.

Each workout should last approximately 30 to 40 minutes.

If your workouts are lasting more than 40 minutes something is wrong. In fact, they should be much closer to 30 minutes than 40 minutes.

Now I understand there are situations at certain gyms - crowds - that make this a tough proposition, but it's very important that your workout is completed in this duration of time. If that means finding another gym to train at then start looking. If you are training with more than one workout partner and this extra man is stretching your workout then you need to make adjustments - lose the third wheel.

This imposed time limit fits neatly into Max-OT's fundamental principle - Intensity. Max-OT defined intensity is **"Maximum muscle overload in the minimum amount of time."**

The Max-OT 30 to 40 minute workout offers the following benefits:

It's much more feasible to maintain maximum mental and physical intensity for 30 to 40 minutes than for 90 minutes. In fact, after 30 minutes mental focus and intensity start to decline rapidly.

Training for 30 to 40 minutes maximizes hormonal spikes related to high-intensity training. Max-OT training maximizes key hormonal output based on intensity and duration.

Training for 30 to 40 minutes optimizes the "anabolic-window" high-intensity training provides. Going beyond the 40 minute threshold places you outside the optimum hormonal response time.

Training beyond 40 minutes increases the risk of over-training and increases catabolic hormone secretion. As you drift outside the "anabolic-window" you enter a detrimental "catabolic" phase. Training beyond 40 minutes decreases anabolic activity.

So as you can see, there are physiological advantages to keeping your workout in the 30 to 40 minute range. And there are definite physiological disadvantages to training beyond 40 minutes.

Max-OT is all about **efficiency**. You'll see the word efficiency used many times throughout this course.

Train only 1 or 2 muscle groups per workout/day.

Max-OT training involves maximum muscle fiber stimulation and overload in a minimum amount of time. In order to accomplish this, adjustments must be made to achieve these objectives within the desired "optimal-time" parameter.

Training one muscle group per workout is paramount to the Max-OT principles as it optimizes key physiological and psychological high-points designed to extract the greatest effect from your training. Every time you train the Max-OT way, you leave the gym fully confident that you performed a workout that will result in muscle growth.

The Max-OT "one body-part per day" principle takes advantage of the "duration of maximum intensity" that occurs both physically and mentally when you train. By pre-establishing in your mind that you will only be training 1 muscle group you are able to generate much greater mental focus and intensity. This psychological "edge" directly and favorably impacts physical intensity output. Bottom line, you train each muscle group much harder, achieve greater muscle fiber contraction, greater overload, and spark more muscle growth by establishing 100% physical intensity and 100% mental focus.

Do 6 to 9 total heavy sets per muscle group.

6 to 9 Sets

For each muscle group you train Max-OT principles stipulate between 6 and 9 total "heavy" sets. That's total **heavy** sets. No matter how many exercises you do, you will only do between 6 and 9 total heavy sets per muscle group.

What's a Max-OT "heavy" set?

A Max-OT heavy set is a set done with a weight that will allow at least 4 reps, but no more than 6 reps. This is very important and fundamental to Max-OT.

What's a Max-OT set?

A Max-OT set is a set performed to "positive-failure" with a heavy weight for 4 to 6 reps. In other words, a warm-up set is not a "Max-OT set". It is a warm-up set and that's it. So don't count your warm-up sets as part of your 6 to 9 sets per body part. This is important.

What is "Positive-Failure"?

Positive failure is when a set is performed to the positive limit of muscle exhaustion. In other words, you are done with a set when you are no longer able to complete a rep on your own. **This positive-failure should occur between the fourth and sixth rep.** Max-OT does not employ forced reps beyond maybe partial help on the last rep of a set.

Contrary to what most have been led to believe, forced reps are counter productive to building muscle. They artificially fatigue the muscle, deplete muscle energy stores, and produce non-progressive overload just to name a few.

How many times have you seen people in the gym training and one guy's spotting another and yelling in his face to do two more reps when he really should have stopped two reps ago. Do not do forced reps.

Do 4 to 6 reps per set.

4 to 6 Reps

This is the heart of Max-OT. You will do 4 to 6 reps on virtually all lifts. There will be some lifts that you will do a little more reps on, but only a few. The 4 to 6 rep range is important and critical to success of Max-OT. We will go deeper into the understanding of this further in the course, but for right now you need to ingrain this **"4 to 6 reps"** into your mind.

What is meant by 4 to 6?

When I say to do between 4 and 6 reps, this means that you will use a weight that is light enough to allow you to get **at least 4 reps**, but is also heavy enough to where you **cannot do any more than 6 reps**. If you can't do 4 reps, then the weight is too heavy. If you can do more than 6 reps, then the weight is too light.

This is important and is critical component of Max-OT. 4 to 6 reps is the "ideal" rep scheme for building muscle. It allows maximum muscle fiber overload and maximum muscle fiber recruitment.

Intensity

A big advantage (aside from the physiological benefits) is that it's much easier to mentally focus your energy on a set of 4 to 6 reps than it is on a set of 10 to 12 reps.

Knowing that your set will be short and intense will allow you to generate maximum mental intensity, maximum muscle contraction, and maximum muscular force. Max-OT, in itself, is a more productive muscle building approach that literally acts synergistically with each technique, component, and principle to exponentially accelerate your results.

Once you understand that heavy weight is the most influential stimulus for muscle growth, you will continue to strive for greater overload. You will continue to get bigger and stronger in less time.

Rest 2 to 3 Minutes Between Sets - STR.

Max-OT, as its name inspires, is all about maximum intensity and maximum overload for maximum results. Building on the principle of lifting with maximum intensity and overload for 4 to 6 reps, between set recovery is very important. I call this "Short Term Recovery" - STR.

As you perform reps with heavy weight many physiological reactions are taking place to make all this happen. Muscle contraction takes cellular energy, oxygen, chemical reactions within the cells, and a host of other molecular activities. As each rep is performed you deplete your muscles' capacity to contract with the same force as with the first rep. By the time you get to the 5th rep you have tapped out your muscle intra-cellular energy capacity.

This is Max-OT. It's pushing a muscle to this extreme that produces results. Recovery between sets allows you to repeat this process until enough overload volume has been performed to stimulate and force new muscle growth. The idea of maximum recovery between sets is to maximize your muscles ability to lift maximum weight during the next set. Notice the word "maximum" used a lot here?

Between set recovery should last about 2 to 3 minutes. This amount of time allows the muscle to recover its intra-cellular energy stores and flush any lactate out of the muscle that's hanging around from the previous set to restore its anaerobic capacity.

Now between set recovery will vary between individuals. Some people just recover much faster than others. As I pointed out earlier you want to strive for is recovery that will allow you to lift the maximum amount of weight for your next set. For some this is 90 seconds, for others it's the entire 3 minutes - sometimes even longer.

It's important to be fully recovered before your next set because your ability to maximize the overload on the muscle will directly reflect in the muscle growth it produces.

This critical between set recovery phase (STR) is exactly why Max-OT does not incorporate "super-sets", "pre-exhaustion", or other fatigue inducing techniques. We'll get deeper into later, but realize right now that **fatigue does not build muscle - overload builds muscle**. Fatigue simply fatigues. Once a muscle is fatigued it can't be properly overloaded.

Most all lifters confuse fatigue with overload. This will take some logical thinking on your part to separate the two - again because of all the miss-information published in the magazines. Things like "feel the burn" are not what building muscle is about.

Train each muscle group once every 5 to 7 days.

Here we go from "immediate" between set muscle recovery (STR) to "intermediate" recovery (ITR) - the recovery between training sessions of the same muscle group. Example: The time between one leg workout until your next leg workout.

This is very, very important and one of the major components responsible for facilitating the muscle growth process. **Recovery**. How many times have you heard this word? Do you really understand what it means and what impact it has on muscle growth? I can answer that with one word - **everything**. Complete recovery of each muscle group after a Max-OT training session before the same muscle group is subjected to overload again is of equal importance to the overall results as the actual training itself. **Recuperation is everything**.

There are many things you can do to enhance recovery. Nutritional advances have made this a "no-brainer" and almost foolproof process. We will get into that in greater detail later. Right now we are primarily concerned with the "time" between workouts to allow for full muscle recovery. Most training programs have you training way too often. This habit is too hard to break. Building muscle is an "excess-endeavor". You always want more. This being a major motivation, it's against normal thought to - do less to get more.

The muscle growth process does not occur in the gym. Let me repeat, **muscle growth does not occur in the gym**. Muscle growth occurs during the recovery period - the critical time between workouts of the same muscle groups. As a result of overload, muscle must adapt to compensate for future overload. This recovery period is the time when muscle is recuperating, growing, and becoming stronger in preparation for more overload. Adapting.

If a muscle is not allowed to fully recover between workouts muscle growth will be impeded, over-training will occur, and muscle breakdown will be inevitable. You will become stagnated. Muscle mass and strength will more than likely decrease. Energy levels will dwindle, appetite will lessen, and motivation will disappear.

Recuperation

As you can see, recovery between workouts is absolutely critical for muscle growth success as well as for optimal health and well being. This is why a major component of Max-OT training is to optimize recovery between workouts. Allowing **5 to 6 full days** between training of the same muscle group is essential for full and complete recuperation. Recuperating fully leads to maximum muscle growth. Incomplete recuperation leads to muscle and strength breakdown.

As I said earlier, most training programs have you training far too much. The days of training the same muscle group on Thursday that you trained on Monday are long gone. Max-OT takes the elements of **intensity** and **overload** and maximizes the recovery the implementation of these two growth promoting elements requires.

Every element of Max-OT is designed to potentiate and synergistically work with the program as a whole. The longer recovery time is necessary to allow for full recovery from **the higher than normal muscle fiber stimulation** that Max-OT generates. Max-OT style training places much greater demands on muscle recovery. Greater muscle fiber stimulation and maximum recovery will lead to maximum muscle growth and strength increases. This is what Max-OT is all about.

Take a 1 Week Break From Training Every 8 to 10 Weeks.

Make no mistake about it. Max-OT is a brutal form of training. It's heavy. It's intense. It's result producing. It encompasses a **total** approach. It's not just the training part of the equation. It's the mental approach, the nutritional approach, the timing aspect, the exercise techniques all rolled into one.

Understand that muscle growth and strength enhancement doesn't happen by accident. All in all, muscles beyond maturity do not want to grow. **You must force a muscle to grow.** It must be subjected to a stimulus that compels it to adapt and grow. There must be a reason for a muscle to grow or it won't. And, the more effectively you nurture this growth the greater the results you will experience.

As I discussed earlier, recuperation is of vital importance to muscle growth. Recuperation will determine how well your muscles respond to Max-OT training. There are 4 important "time-spans" of recuperation:

1. Short Term Recuperation (STR) - Between sets.
2. Intermediate Term Recuperation (ITR) - Between workouts.
3. Muscle Specific Recuperation (MSR) - Between identical workouts.
4. Cyclical Recuperation (CR) - Between Max-OT Training cycles.

Taking a week off from training every 8 to 10 weeks is very important for overall recuperation and muscle growth. Many people have a psychological barrier to taking time off from training. They feel like they are going to shrink. Not so. In fact, with Max-OT, after your week off for CR you will usually come back bigger and stronger.

This week off allows your body to repair and grow. It is literally recovering from 8 or 10 straight weeks of heavy training. Fed properly, your body during this CR phase will be in a very high "anabolic" state. Muscle growth and repair will be constant 24 hours a day.

One very important thing, well, actually two. Do not do any type of strenuous aerobic or anaerobic activity during this week. You don't have to be a slug, but refrain from any exhausting or physically taxing activities. This is a recuperation week that is a key element in Max-OT.

Also, you should consume plenty of lean protein during this CR as well. When you take a week off from training you still need to eat and supplement properly for growth to occur. In fact, is vitally import during this phase.

A Max-OT Routine To Get Things Started.

I know everyone is very anxious to get started with the training, but understanding the complete Max-OT approach is paramount to getting the most from this program. Over the length of this course we will go much more in depth into the various elements of Max-OT so you will be able to extract every drop from your training, your nutrition, and your determination.

As you're finding out, building muscle goes way beyond reps and sets. Max-OT incorporates the most effective set and rep scheme and integrates it with precise nutrition, recuperation, intensity, and mental focusing techniques that, when correctly combined, will produce muscle and strength enhancement like no other program in existence. Max-OT is a program containing different elements with each one depending upon the other to form what I like to call "Max-OT Synergy".

This program is designed to educate and not just instruct. I want to build an understanding as to why each element of Max-OT exists. After you complete this course you'll no longer just go through the movements and hope for the best. You'll know exactly why you do everything.

The next few pages will detail a very effective Max-OT routine to get you accustomed to training the Max-OT way. Follow it to a "T". This is a very effective Max-OT routine. Latter in the course I will put together over 25 different Max-OT training routines as well as a complete 6 month Max-OT cycling program that will guarantee new muscle growth day in and day out. I will detail exact Max-OT mechanics of each exercise to show you how to get more overload - more muscle growth - from each rep you do.

Now lets proceed to the first Max-OT routine.

Monday - Max-OT Legs

You guessed it. Squats. I recommend doing legs on Monday mainly because at most gyms everyone does chest on Mondays. This leaves free reign of the leg equipment. No waiting.

First you need to make sure you warm-up properly. This is very, very important. It's important to prevent injury and it's important for Max-OT as it is an area everyone gets wrong. Learning to warm-up properly will have a major impact on muscle growth. Next week I will detail proper warm-up techniques that will add up to 30 pounds to your bench - the first day!

Make sure that your warm-up sets are just that, warm-up sets. **Do not warm-up to exhaustion.** Never do a set that approaches failure before you get to your "heavy" sets. We will go deeper into this a bit later. It's very important. The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	3	4 to 6
Leg Press	2	4 to 6
Stiff Leg Dead lift	2	6
Standing Calf Raise	2	6 to 8
45° Calf Press	2	6 to 8

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesday - Max-OT Arms and Abs

Here you will train both biceps and triceps during the same workout. There will be other routines where you split these two muscles up, but this routine trains them together. There are advantages both ways. We'll go into more detail on these advantages later.

On bicep movements you want to lower the weight twice as slow as you raise the weight. In other words the resistance portion of the movement should be twice as slow as the contraction portion. The same applies to triceps. The resistance portion of the movement should be twice as slow as the contraction portion. The overall pace on both should be moderate and the contraction portion should be explosive and forceful.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	2	4 to 6
Alt. Dumbbell Curls	2	4 to 6
Straight Bar Cable Curls	1	6
Lying Tricep Presses	2	4 to 6
Tricep Cable Press Downs	2	6
Dumbbell Kick-Backs	1	6
Wrist Curls	2	6 to 8
Dumbbell Wrist Curls	1	6 to 8
Leg Lifts (with added weight to ankles)	2	12 to 15
Weighted Cable Crunches	2	8 to 10
Crunches (weighted)	1	8 to 10

* Remember, the weight you use should be light enough to do 4 reps, but heavy enough so you can't do more than 6 reps. Each set should be done to **positive** failure.

Wednesday - Max-OT Shoulders/Traps

Notice the extensive use of "basic" compound movements. This allows for maximum weight to be used. Shoulders are an impressive muscle group and respond very well to Max-OT training.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Military Press (In front)	3	4 to 6
Dumbbell Press (Palms facing in at bottom of the movement and rotated forward at the top.)	2	4 to 6
Dumbbell Side Laterals	2	6 to 8
Barbell Shrugs	2	4 to 6
Upright Rows (close grip)	2	4 to 6

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to **positive** failure.

Thursday - Max-OT Back

There are many different machines that are available for training back that suit Max-OT style training very well. However, not everyone has access to these different machines. It's no big deal. Free weight still remains king. I will keep this workout slanted toward commonly available equipment.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
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Cable Pull Downs (In front)	3	4 to 6
Seated Cable Rows (There are many different shaped attachments you can use. The most effective - the straight bar.)	2	4 to 6
Bent Over Barbell Rows	2	4 to 6
Good Mornings	2	4 to 6
Weighted Hyper-Extensions	2	4 to 6

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to **positive** failure.

Friday - Max-OT Chest and Abs

Chest training is very Max-OT friendly. You can employ several very effective compound movements that fit right in to the Max-OT training techniques.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Flat Barbell Bench Press	3	4 to 6
Incline Dumbbell Bench Press (Incline should be about 25 to 30 degrees)	3	4 to 6
Weighted Dips	2	4 to 6

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to **positive** failure.

Conclusion

By now you should have a good understanding of the basics of Max-OT training. You certainly have the tools to get you started and headed in the right direction. Like I've

said before, the exercises are not new, but the application, mechanics, and theory behind Max-OT are original and exciting.

The Surface Has Just Been Scratched

In the coming weeks I will reveal many new approaches to building muscle that most people have never thought of - at least not long enough to make an impression. I am going to list the most effective movements for each muscle group and why they are so. I will discuss exercises that you should avoid and why you should avoid them. I will reveal many simple techniques to increase overload intensity that will ignite new muscle growth. I will explain what it means to train with intensity. I will reveal techniques to guarantee each workout is better than the one before.

The purpose of this course is give you a full and complete understanding of the inner and outer workings of Max-OT: to provide you with real-world information that you can use immediately to accelerate your training results. I will break down every aspect of Max-OT in vivid detail. My goal when this course is finished is to have 4000 Max-OT experts and 40,000 extra solid pounds of muscle in the gyms around the world.

You've taken the first step, this will get you started, but the real power is **the total concept and synergy that comes from the 11 remaining weeks**. It's important to stick with this program week by week as the coming courses will make revelations like you wouldn't believe.

That's it for this week. Please read this over several times. Study it. I want you to have a full understanding of this material before you proceed to the next week. Train hard and heavy. Follow each principle, technique, and workout exactly as it is presented. Do this and you're on your way to making the gains of your life.

Welcome Back.

Well you've made it through the first week. That's an excellent sign. There is much more to come. As the weeks progress we are going to get deep into the nitty-gritty and formulate a master Max-OT plan of attack that you will be able to implement from here forward.

The first lesson produced a lot of feedback from everyone. This is good. I want everyone to get very involved and learn as much as possible. It's important to understand that this is a 12 week course and many of your immediate questions will get answered as things progress.

I am also setting up a [Max-OT Question and Answer Page](#) that will answer all relevant questions that I am getting concerning Max-OT. This way everyone is able to view the different questions everyone is submitting and the answers to them. This will be much more efficient and will undoubtedly answer questions that many will have but just not think to ask. This Q&A page will expand as the weeks go by and I'm sure you'll find it very helpful.

This week I am going to explain the importance of warming up properly - the Max-OT way - and also talk about one of the most often used training mistakes - the burnout set.

Now we are not just talking about warming up so you won't injure yourself. That is only part of it. Just about every training program I have ever seen is wrong. And one of the main areas that these programs fail is the improper approach to warming up. I'm going to show you a way to warm-up that will make you stronger the very first day you implement it.

Max-OT - Warming Up The Max-OT Way.

I want you to remember the following. Max-OT is all about building muscle. Max-OT takes the approach that every rep, every set, and every workout is done for one reason - **to build muscle and strength**. This is very important. If you do a rep, set, or entire workout with weights for any other reason then you need to seriously question just why you are training in the first place.

Any time you wrap your hands around a bar and start a set it should be approached with the mindset of building muscle and strength. You should be able to quantify why you do each rep. What other physiological reason is there for lifting weights? So every time you do a rep you know that that rep is either directly involved in building muscle or is a necessary prerequisite to the muscle building reps.

How most lifters fail to take the right approach from the very start.

Efficiency is one of the main attributes of Max-OT training. The more efficient you train the more effective your workout is going to be, the more muscle you are going to build and the quicker you are going to build that muscle.

Why expend precious energy without using maximum efficiency? Warming-up properly is an area of training that should be performed with the utmost efficiency because it is the prelude to building muscle. Warming up improperly will impede your ability to maximize muscle overload, total muscle fiber stimulation, and growth. Warming up correctly will allow you to expend the maximum physical mental intensity on the sets that count the most - the muscle building sets.

Warming Up The Wrong Way - Are You Guilty?

I would say that 99% of the people that train warm-up wrong. And in doing so, it reduces their ability to produce maximum overload for maximum growth. Again, as I discussed in the last section, this incorrect technique has been and continues to be passed along from gym to gym, coach to athlete, magazine to subscriber, etc., etc. It's like a weed you can't get rid of.

A somewhat unfortunate thing about building muscle is that there is no definite "right" or "wrong" way to go about it. What I mean is, you can train wrong and still build muscle. Max-OT is about building maximum muscle and strength in the shortest amount of time. Max-OT extracts all the physiological understanding of what stimulates muscle growth and wraps it all up into a systematic, step-by-step plan that will maximize the muscle growth parameters and eliminate the regression caused by typical training programs.

How NOT to warm-up.

Let's use the Bench Press as an example here. For sake of description we'll say that 275 is the maximum for 3 reps. Here is how most people do a bench workout.

They load the bar with 135 pounds and do about 10 or 15 reps. They'll rest a few minutes and then go to 185 pounds. Here they do another 10 reps. Then they go to 205 pounds and do about 10 reps. After a little rest, they go to 225 pounds and do 7 or 8 reps depending on how good they feel.

So far that is 4 sets. Now throw on 20 pounds to 245 and do about 7 reps. That's set number 6 and they haven't even started to build muscle yet. From here they take the 10's off and put on some 25's. At 275 pounds the barely knock out 3 reps.

Can you point out the mistakes here? They warmed up. No question about that, but they did so at the expense of strength and overload. In other words, their technique for warming up resulted in poor or inadequate muscle fiber stimulation and overload due to **premature muscle fatigue**.

Warming Up Is Warming Up.

Understand that warming-up is nothing more than "warming-up". What this means is that you should warm-up the muscle group you are training in a fashion that will allow you to infuse the right amount of blood into the muscle and connective tissue and progressively introduce the increasing overload to this muscle group. **This warm-up process should not fatigue the muscle.** I repeat, the warm-up process should not fatigue the muscle. If you generate any muscle fatigue whatsoever during your warm-up sets you will compromise muscle overload and growth.

Proper Max-OT warm-up techniques introduce blood into the muscle group, progressively acclimate the muscle and soft tissue to the heavy weight, and does not fatigue the muscle. A fatigued muscle is a weak muscle. A muscle not "ready" for heavy weight is an injury prone muscle. The key is to warm-up the muscle being trained so it can handle maximum overload without injury, while at the same time not fatiguing the muscle in the process.

I am going to show you how to implement a technique into your training that will provide immediate results in the amount of weight you use. Remember, muscle growth is dictated by overload. The greater the overload placed on a muscle, the greater the growth response from that muscle.

We are going to take the same weight scenario on the Bench Press as used before, but we'll use the Max-OT warm-up technique. This technique will allow you to lift more weight for more overload and more growth.

Understand that the only sets that actually induce muscle growth are the **heavy sets** - the sets using maximum weight for 4 to 6 reps. All other sets besides these will not produce overload needed to induce growth. These sets are merely preludes to the muscle-building sets. With this known, now you can see why it's critical to intelligently warm-up so you can maximize the growth producing sets.

Warming Up The Right Way.

Here we are going to take the Bench Press and show you a proper warm-up technique that will allow you to lift more weight on your heavy sets. Remember, more weight - more overload - more muscle.

Again we'll use 275 as your heavy weight. If you typically warm-up and train like I pointed out earlier the 275 will feel a lot lighter this time.

First Set: 135 x 12 reps (warm-up)

These should be good smooth reps. Not too slow and not too fast. Your main goal is to increase blood flow and get the feel of the movement and the weight. After this first set you should rest about 2 minutes.

Second Set: 135 x 10 reps (warm-up)

Same weight as before. Rhythm should be a little faster this time. Not much faster. Rest about 2 minutes.

Third Set: 185 x 6 reps (warm-up)

This should be a deliberate set done at a moderate pace. This is the next step in weight acclimation. It should feel light and 4 reps should be very easy. Rest about 2 to 3 minutes before the next set.

Fourth Set: 225 x 3 reps (weight acclimation)

You should follow the same rhythm as in the last set. 3 strong reps. Rest 2 minutes before next set.

Fifth Set: 255 x 1 rep (weight acclimation)

That's right, just 1 rep. The purpose here is weight acclimation. This should be a strong, powerful and deliberate rep.

Sixth, Seventh, and Eighth Set: 285 x 4 to 6 reps (muscle-building)

These are the muscle building sets. Very important. **These are the only sets that produce muscle growth.** All the sets leading up to these heavy sets are merely warm-up sets and are treated as just that and nothing more.

Notice we went to 285 instead of 275. Warming up the Max-OT allows you to use heavier weight during the most important muscle building sets.

Eliminating And Avoiding Unnecessary Sets.

Anytime you do a set it should be performed for a defined purpose. In essence there are only three types of sets - warm-up sets, weight acclimation sets, and muscle building sets. There are no in-betweens. No other set should exist and from the standpoint of building muscle, no other set does exist. Each set you do should be clearly defined and fall into one of these 3 categories.

Think about your typical workout. How many sets do you do that have no clear definition? You know the sets that fall somewhere between a warm-up set, a weight acclimation set, and a muscle building set. These sets should be eliminated and a structured Max-OT workout does just that.

A set that is neither a warm-up set, a weight acclimation set, or a muscle building set does nothing for muscle growth. In fact, these undefined sets rob the muscle of maximum growth by inducing fatigue. Fatigue is muscle growth's worst enemy.

Here is an example of unnecessary sets typically done during most non Max-OT workouts.

Let's say you just finished your Flat Bench Press routine. Now it's time to move over to Incline Bench Press. Most people will follow another inefficient warm-up routine for Incline Bench Press like they did on their Flat Bench Press routine. Why? Your chest muscles are certainly warm and able to handle maximum weight. Why would you go through the entire warm-up scenario again when you're training essentially the same muscle?

Think about the training you have done in the past and add up all the unnecessary sets you do in a typical routine. Imagine how much this has robbed you of muscle growth.

Wasted warm-up sets apply to every muscle group being trained. There is no need for repetitive warm-up sets for the same muscle group within different exercises. This only adds further fatigue and depletes muscle energy substrates that ultimately rob your muscle's ability to handle maximum overload.

"Do Not" Specifics.

1. Do not pyramid unnecessarily.

One of the worst training methods ever introduced is pyramid training. This is where you start out light and then add small increments of weight with each set - going to failure each set until you get to your heaviest set. After the heavy set you then lighten the weight just opposite to how you increased it on the way up. Then you complete reps to failure for each set on the way down.

As I said, this is probably the least efficient way possible to build muscle yet it is the most common training approach used today. So if you are training this way the first thing you should ask yourself is - Why do I do this?

When you structure your sets like this, for whatever muscle group you are training, you deprive them of not only the overload they are capable of, but also the overload needed to induce efficient muscle growth.

2. Never go to failure on a warm-up set.

This is the ultimate training sin. Never, ever, ever, ever, go to failure with a warm-up set. This is the perfect way to sabotage a workout and stop muscle growth dead in its tracks.

3. Do not warm-up the same muscle group twice.

Never re-warm a muscle group just because you have proceeded to a different exercise.

Examples: There is no need to warm-up on the Leg Press after a squat routine. There is no need to start out light on Barbell Curls after finishing Dumbbell Curls. Likewise, there is no need to start out light on Cable Rows after Barbell Rows.

It's very important to never do unnecessary reps, sets, or exercises when trying to build muscle. This is why warming up properly is so critical. In Max-OT training the heavy sets for 4 to 6 reps is where everything happens. All sets preceding these heavy sets are just performed to get the muscle groups ready for the 4 to 6 rep sets.

Doing any proceeding sets in a manner that will impede in any way the execution of the heavy sets will be counter-productive to building muscle. It's imperative that you understand the difference between the three different types of sets in Max-OT training.

Weight Acclimation Sets

Just what is a weight acclimation set? Weight acclimation sets are a form of warm-up sets that are done to allow your muscles, tendons, joints, and ligaments to become accustom to the increasing weight overload.

A warm-up set pumps blood into the muscle and surrounding and supporting soft tissue. This enhances flexibility and elasticity of the muscle. A weight acclimation set is performed to progressively introduce the increasing overload to the muscle, joints, and supporting soft tissue in preparation for the high-intensity, heavy sets.

Weight acclimation sets are very important in preventing injury. These sets condition the muscle and soft tissue for the upcoming heavy sets. Neither warm-up sets nor weight acclimation sets build muscle, but they are integral to building muscle by preparing the muscle and supporting soft tissue for the heavy weight.

Because warm-up sets and weight acclimation sets don't build muscle, they must be done in a manner that does not impede, but enhances the muscle building sets. This is the essence of weight acclimation.

Weight acclimation sets allow your muscles to "prepare" for upcoming heavy sets without fatiguing the muscle being worked. Proper warm-up techniques utilizing weight acclimation sets will enhance your muscle's ability to maximize nerve-muscle contraction and lift heavier weights for maximum overload generation.

Max-OT "Set-Synergy"

As you can tell by now Max-OT incorporates a strategy that encompasses total synergy between the different types of sets all leading to the ultimate heavy, muscle building 4 to 6 rep sets. It is the 4 to 6 rep sets that are responsible for inducing muscle growth and strength, but without proper techniques in the warm-up and acclimation sets, maximum weight and intensity can't be used during the heavy sets.

The importance of warming up correctly can't be overstated. It's essential in staying injury free and critical to your performance during the muscle-building sets. Understanding why you do each specific set that you do will shed light on the overall science behind Max-OT.

Remember, in Max-OT the only sets that build muscle are the 4-6 rep sets. All other sets are done in preparation for these sets. These prior sets are designed to promote maximum muscular energy and strength with minimal risk to injury. This way the muscle-building sets can be performed with maximum overload and maximum mental and physical intensity.

Muscle Burn - Muscle Pump

I want to talk about another grossly mistaken fallacy in weight training and building muscle. You often hear people screaming at their training partners in the gym things like *"Come on, make it burn."*, *"No pain, no gain."*, *"Give me another rep!"* and other silly gym lingo that make them feel as if they are training with ultimate intensity. And don't get me wrong, some train quite hard and these outbursts seem to help them with their intensity. What I'm leading to are training myths that have become accepted as muscle building indicators.

Muscle Burn

The burning sensation that certain types of training bring on is believed by most to be a sign of a successful growth promoting workout. Many seek it out and strive to achieve this burning sensation as an indicator to a good workout.

Well let me tell you, that muscle "burn" is **not** an indicator of an optimum workout. This burn is caused by infusion of lactic acid. Lactic acid is a byproduct of glycogen metabolism in muscle tissue. Lactic acid is not good for muscle growth. In fact, it impairs growth. Where does this burning sensation come from? It comes from lactic acid due to high reps. Not only does high rep training supply insufficient overload for growth it also causes high muscle lactic acid levels that lead to tissue catabolism, oxidative stress and delayed muscle recovery.

Muscle Pump

The muscle pump you feel when training is a result of blood actually being "trapped" in the muscles being worked. The muscle pump is certainly a good psychological boost during training and accompanies just about all resistance exercise. And as your muscles become larger so will the pump you get while you train. Now while this muscle pump is not really a bad thing, it is not necessarily an indicator of optimum muscle overload. As you progress in your development you will find that achieving a noticeable pump even during your warm-up sets to be much easier and more prominent. More muscle - more "trapped" blood - bigger pump.

Muscle Overload

Muscle overload is what you are after. The entire concept behind Max-OT is to tap into the underlying physiological adaptation processes that stimulate muscle growth. Overload is the stimulus that induces a muscle to grow. Muscle "burn" does not stimulate growth. Muscle "pump" does not stimulate muscle growth. Overload stimulates growth.

Once into adulthood, muscle growth is not a natural process. It has to be ignited through overload adaptation. In order for a muscle to grow it must have a reason. From a pure training standpoint muscle overload is the only stimulus that can generate muscle growth. The greater the overload, the greater the need for the muscle to adapt. A muscle adapts to overload by growing in size and strength.

As you are well aware, Max-OT is centered completely around achieving progressively increasing muscular overload at every workout. In fact, each time you train you should attempt to increase the overload from the previous training session. If this is not attempted there will be no need for the muscles being trained to adapt and grow.

Max-OT always seeks to force muscle to grow. Progressive increases in overload and intensity are what are required for muscle growth.

This leads me to the final subject in this week's lesson - Muscle Memory.

Muscle Memory

A common training mistake that I see people doing all the time and even promoted through other training programs is the "burnout" set.

This is usually the last set in an exercise that consists of a lighter weight done with high reps to failure. This my friends is very counter-productive to muscle growth from several standpoints and should never be performed.

To get a better understanding as to why you should never do this "burnout" set you must ask yourself why you are doing it in the first place. I've heard answers like, *"To feel the burn."*, *"To stimulate every last muscle fiber."*, *"To get the burn and the pump."*, *"To finish off the exercise."* to name a few. As you can see all these explanations either make no sense, have no reasoning behind them, or go against the physiological pathways of muscle growth.

Muscle Memory

Here is an area that little formal research has been done, but enough has been completed to clearly indicate where "muscle memory" plays a prominent role in final overload adaptation, muscle growth, and muscle strength as a result of overload. There is even evidence that this muscle memory is exercise specific.

What this tells me, and is confirmed in the gym, is that your muscles have a "memory-like" effect that dictates the growth resulting from a workout. Strength appears to be even more prominently effected by this "muscle memory."

In other words, **your muscles appear to have a memory effect that is significantly influenced by the last set that you do.** If you finish each set with a heavy 4 to 6 rep exercise your muscles remember this and adapt accordingly. This memory effect is an important physiological phenomenon and should be used to your advantage in gaining strength and muscle size. And conversely, this memory effect should be manipulated so it will not impede the muscle growth process.

This muscle memory phenomenon is another reason, and probably the most important, to never do a high rep set as the last set in an exercise or a workout. That last thing you want is for this muscle memory to be linked to a light, high rep set.

Once you start implementing Max-OT you'll quickly notice the muscle memory effect. Using this knowledge to your advantage and following the structured Max-OT workout plans it will become very evident how potent this muscle-building muscle memory effect can be.

This memory effect is an integrated part of Max-OT and is used to tie one workout to the next. By taking advantage of the Max-OT techniques - from warming up to final set - you will be able harness and maximize the physiological processes that occur to magnify the adaptation in the form of muscle growth as a result.

Conclusion

I've covered some very important points to Max-OT training. It's important to understand that each aspect of Max-OT is critical and dependant upon every other aspect. Max-OT is a total way to train. It's a not program were you just implement the parts and theories that fit your current style or likes. It's a complete mental and physical approach to building muscle that incorporates the science of muscle physiology as well gut intensity.

I want you read and re-read this section so you will garner a full understanding of these techniques and theories. This course is designed so that you will have plenty of time to digest the weekly information and incorporate the techniques as you learn them. I can't stress enough the importance of following this information exactly as it is presented.

Don't forget the [Max-OT Q&A](#) section. I encourage you to send in your questions as this will turn into and quite a knowledge base of Max-OT training information.

Intensity - Max-OT Training Rotation

This week I am going to discuss **training intensity** and how Max-OT works in synergy with your body's own physiological mechanisms to enhance intensity output. I am also going to detail a different Max-OT workout and describe the mechanics of each exercise and how to do them the Max-OT way.

Also, I have put up a [Max-OT Question Submittal Form](#) to send in any questions you have on Max-OT. The [Max-OT Q&A](#) section will start to fill up quickly as I am being bombarded with questions daily. Many of you are very anxious and most of the questions will be answered as the course progresses. So I ask you to please be patient. I am typing as fast as I can. Damn! If I had only taken Typing in High School!

Intensity - What Does it Mean?

I will start off by saying intensity is what separates those that make modest gains over the years from the ones that make massive gains year in and year out.

Intensity! Understanding and being able to train with maximum intensity will literally force your muscles to grow. It leaves them no choice. They have to adapt. They have to grow.

What I find most prevalent is that most people do not train with maximum intensity. They think they do, but they really don't. Not even close. This is important. **Intensity and overload is the Max-OT key to muscle growth.** They go together. They depend on one another. When combined they exponentially enhance the important physiological triggers for muscle growth.

Intensity without overload is not sufficient to build appreciable muscle. And overload without intensity, not only limits muscle growth, but it increases the chance of an injury occurring. Injuries are not good and will certainly keep you from building any muscle. With Max-OT, the more intensely you train the less your chance of injury.

A major technique of Max-OT is the blending of intensity and overload to get the maximum growth stimulating effect from each and every rep. You must realize that intensity is not just a "hard" workout. Intensity is both mental and physical and the connection between the two. You have to hone your mental intensity to make it all happen. Max-OT is much more than just doing heavy weight for 4 to 6 reps. It's doing the 4 to 6 reps with maximum mental and physical intensity.

How to Know If You're Training With Maximum Intensity.

As I said earlier, very few people train with maximum intensity. And if you think you do, that can be problem. If you're comfortable with the intensity you train with then what's going to motivate you to improve on it? Let me be the first to tell you, no matter how hard you train or how intense you think your training may be, you can always train harder with more intensity. Always!

If you're an experienced lifter you know the difference between good and great workouts. You know when you have slacked and you know when everything thing goes perfectly. You know when you have trained as hard as you possibly can for that given workout. There is an unmistakable physical and mental feedback that occurs.

Think for a moment about some of your truly great workouts. You know the ones - where every lift you do feels light. Where nothing distracts you. The ones where you're so focused mentally that nothing could break your concentration. The workouts where you can feel every fiber in your muscles engorge with blood. Your muscles achieve that extra pump. You feel big. You feel strong. Everything is perfect. Every rep, every set.

This is synergistic intensity. Intensity that feeds on itself. It's like perpetual motion. When you can harness this type of intensity continuously - the "mind-muscle" link - big things will happen. Your training will start to payoff with serious dividends in muscle growth.

Max-OT is designed, not only from a physiological advantageous standpoint, but also from a psychological one as well. Max-OT combines the physical advantage of muscle overload with what I like to call the "time-sensitive" maximum intensity threshold. This mental and physical synergy produces a unique training environment that generates maximum intensity capabilities.

The very structure and physical mechanics of Max-OT are designed to capitalize on the physiological kinetics of muscle growth while creating optimum mental parameters for maximum intensity.

Max-OT is Designed For Intensity.

Max-OT intensity is a short-term, extremely focused and concentrated exertion of energy involving 100% mental and physical effort. The Max-OT program makes training with maximum intensity much more effective and much easier. It's designed to capture and focus this intensity in each workout.

By now you know that building maximum muscle requires maximum intensity. You know that Max-OT is designed to harness this intensity. Here is how Max-OT will allow you to enhance your intensity levels by tapping into physiological pathways for intensity enhancement where other training programs will not.

Max-OT Encourages and Develops Intensity

A large part of the intensity you exert comes from desire. It comes from your ability to put forth 100% physical effort while pinpointing 100% mental focus during your training. Max-OT's design is centered around research done on attention span and mental intensity longevity as well as the physiological science of muscle energy and muscle hypertrophy. Here is a list of important physiological advantages Max-OT training generates that other training programs do not.

1. A Max-OT set consists of only 4 to 6 reps. Generating short term, highly concentrated and focused mental intensity is a much easier task for the short duration of a Max-OT set than it is for a set with higher reps. Maximum high-energy intensity can only be generated and maintained for very short periods of time. Max-OT is designed to coincide with this time limited intensity threshold.

2. A Max-OT workout is only 30 to 40 minutes long. This allows for maximum intensity generation and mental focus the entire workout. Again, working on time limited intensity threshold. You can only generate maximum high-energy intensity for very short periods only so many times during a workout. Max-OT is designed to capture this intensity for the duration of the workout.

3. Each Max-OT workout consists of training only one muscle group. You are able to apply maximum high-energy intensity without the concern for training additional muscle groups during each workout. When you train more than 1 major muscle group per workout intensity suffers. Maximum muscle fiber stimulation is compromised. Each Max-

OT workout enables you to exert maximum intensity for each and every set during the entire workout.

4. Max-OT training heavily recruits glycolytic muscle fibers which promotes a higher level of glycogen synthase activity than normal training methods. This stimulates rapid muscle glycogen re-synthesis rates for optimum mental concentration and physical energy output.

5. Max-OT training stimulates an increase in levels of epinephrine (adrenaline) and norepinephrine which increase nerve-muscle contraction force. This has a profound physiological effect on strength. Not only does Max-OT build strength quickly, but it also promotes instant muscle contraction strength through this intricate, but natural chemical release. Increased epinephrine also stimulates enhanced glycogenolysis in the muscle tissue for increased muscle energy.

6. Max-OT training reduces the rate of lactate accumulation lowering the need to efflux lactate and hydrogen ions from the working muscles. This creates a cellular atmosphere suitable for higher rates of ATP generation, increased muscle energy substrate turnover, and increased anaerobic power output.

7. Max-OT training increases vascular flow and capillary exchange capacity enhancing muscle nutrient and energy substrate transport and increasing muscle energy by-product liberation.

8. GH release is significantly higher with Max-OT training than normal training methods. An increase in GH release is substantial within just 10 minutes. Other training methods actually blunt GH release.

As you can see, Max-OT is designed to synergistically increase intensity while it physiologically optimizes muscle growth and strength. This is the only training method ever developed that is designed to foster and avail the combined synergy between muscle energy substrate activity, adrenaline release, increased GH output, increase in nerve-muscle contraction force, and enhanced mental focus ability.

Max-OT training feeds on itself. Each element of Max-OT capitalizes off the other elements of the program. The very design of Max-OT ignites this myriad of physiological, biochemical, hormonal, and psychological activities that have a dramatic impact on intensity creation during training.

Max-OT enhances one's ability to train with maximum intensity thereby increasing the muscle growth and strength response to weight training. That is how Max-OT helps to generate training intensity within itself.

There are other intensity generating issues that you have control over and can manipulate to help take advantage of Max-OT. Let's take a look at these.

Mental Approach to Enhance Motivation

Motivation to train hard and heavy is something that needs to be cultivated. Sometimes you just don't want to train. What do you do then? How can you make it to where you always want to train? You always want to test your limits. You always want to make your next workout better than the last. How can you create an intense desire to give it 100% and more every time you train?

The very structure of Max-OT makes this a more achievable endeavor, but there is a mindset to training that must come from within. **You have to want the results you are after bad enough to go through the pain and work it takes to get there.** You have to sacrifice. Building muscle doesn't happen by accident. Building maximum muscle takes a unique synergy between mind and body. Developing this link of mind and muscle takes some practice and refinement, but the truly awesome athletes work on this daily. The more you can hone and refine this link the greater development you'll achieve.

Supplementing to Increase Intensity

This is a subject that's exciting to me because it's where things all started for AST Sports Science. Back in 1987 I dove deep into an area of research that literally changed the scoop of sports supplementation.

I had been training for about 6 years and making some good progress, but I knew something was missing. I would read the magazines and try to educate myself as much as I could about how to increase the effectiveness of my workouts. This was a mistake, as the intelligence of the ones writing the articles left a lot to be desired. Bottom line, they knew nothing and rehashed only the things they had read in other magazines to make it look like a new article. It was and still is the "blind leading the blind".

I was looking for an edge from every possible angle. I started looking into the psychological area for enhancement through a crude form of self-hypnosis. I devoured research studies on every aspect of nutrition and bio-chemical pathway manipulation to enhance muscle growth. I learned a lot. Tons. I learned that most of the supplements were absolutely antiquated with zero science involved in the formulations. I knew things in this area could only get better.

Then an interesting phenomenon kept surfacing when I was studying the scientific research on muscle strength and muscle hypertrophy - "nerve-muscle contraction force". Then one day an event happened that steered me in this new direction of performance enhancement - a direction that created an area of supplementation that has had the most profound impact on performance enhancement than anything else over the past 15 years.

I was reading a story in the newspaper about a small woman that lifted a car and pulled her child from underneath it after an accident. It was one of those odd believe it or not stories, but it really started me digging into the research.

What would enable a small woman to be able to perform an unheard of feat of strength? Adrenaline! Of course. A light went on and things were changed forever.

I researched and studied every scientific and medical paper imaginable on the effects of adrenaline in the human body. I discovered that if you can manipulate adrenaline in a controlled manner then the implications on muscle growth and strength were all but limitless.

This research lead to the development of one of the world's most effective and popular products ever - Dymetadrine 25. As the years progressed more and more scientific studies and a more clear understanding of the adrenaline pathway has led to development of Dymetadrine Xtreme, an even more effective performance enhancement supplement. I was fortunate enough to introduce to the sports world an area of supplementation that is now the biggest single segment of the sports nutrition market. I say fortunate because of the unique chain of events that led to this discovery.

Dymetadrine Xtreme molds seamlessly with Max-OT as it actually works with the biochemical actions that result from Max-OT training. Dymetadrine Xtreme and Max-OT training both stimulate an increase in levels of epinephrine (adrenaline) and norepinephrine which increase nerve-muscle contraction force. As I stated earlier, this stimulation has a profound physiological effect on strength through the increase in nerve muscle contraction force. Basically your muscles are instructed to contract with more force thereby increasing strength. Remember, overload and strength are the necessary stimuli for muscle growth. Increase intensity, increase overload, increase strength and you increase muscle growth.

Another effect from Dymetadrine Xtreme that, again, has dramatically changed another category of supplementation is its thermogenic effect. It creates, for lack of a better phrase, a fat-burning effect within the body. Not only does Dymetadrine Xtreme increase your body's ability to use stored fat for energy, it also has a profound nutrient-repartitioning effect. This is where nutrients are channeled preferably into lean tissue (muscle) and away from fat tissue. The food you eat is utilized more toward building muscle than for fat synthesis. Now this has nothing to do with intensity, but has everything to do with building lean muscle tissue.

Lastly, Dymetadrine Xtreme works on key beta- receptors that actually enhance the anabolic response of muscle tissue. Muscle responds more favorably to overload thus increasing growth potential.

Don't get me wrong. Dymetadrine Xtreme does not have to be used. However, training with Dymetadrine Xtreme will increase your muscle growth and strength-increasing ability. Bottom line, if you're training without Dymetadrine Xtreme you will not generate as much mental and physical intensity as you could. And intensity is the name of the game. And without Dymetadrine Xtreme you are not able to harness the unique anabolic properties it imparts on muscle tissue either.

Wow, reading over that sounds like one hell of a sales pitch. And why not? It's that good and that effective.

Look, this market is flooded with bogus products all claiming to be the best things in the world. Honestly, when I read through the magazines these days and see all the ridiculous ads with outrageous claims and read the disguised articles about the new "miracle" supplements it makes me sick. It's embarrassing and it's an insult to anyone that reads it. That's how I feel. I've been in this industry a long time and AST Sports Science has contributed immensely to innovation and increase in nutrition and performance enhancing technology. So when I see crap like this persuading consumers to buy stupid products it make me sick.

AST Sports Science is more than a supplement company. We are an extensive information and education provider with the main objective of helping you make the best decisions and get the most from your training efforts as you possibly can. Just browse our web site and then browse the other companies' sites out there. There is no comparison to quality content, the honesty, and the tools that we provide.

Hey, I could have sold AST years ago for a big fat sum, but unlike others, that has never been my objective. I started this company as a means to provide new research, new training ideas, and new supplementation techniques all with the well defined mission of instilling confidence in the end user of our supplements and providing the insight they need to perform at the peak of their capabilities.

This is my motivation and this is a big reason I am providing this awesome program. It is very satisfying to me to be able to help people around the world and steer them in the right direction for

building muscle, strength, and confidence. This is Max-OT, this is AST Sports Science, and this is what fuels my 90 hour work weeks.

So, get some Dymetadrine Xtreme. You'll be very glad you did, and will look back and wonder how you ever trained without it. I guarantee it.

Back On Track

Did I get a little side tracked there or what? I wish I had the talent to be able put into words the passion I have for this industry, for the science of muscle dynamics, for the science of human performance enhancement and for my desire to help people succeed. . It's actually frustrating as the passion runs through my mind, but my fingers just can't quite convey the overwhelming enthusiasm. Anyway, maybe some of you can tap into this emotion with me and if I can reach and share this with just a handful of you, then I will have succeeded.

Okay, so now you know what intensity is. It goes hand in hand with overload in building muscle. Max-OT is intensity. You need to work on training with maximum and ever increasing intensity each and every workout. I am going to outline a few techniques here to help you with this process.

Techniques For Generating And Increasing Mental And Physical Intensity

- 1.** Before each workout I want you to mentally envision your entire routine. Picture each set and each rep you are going to do. Focus heavily on the muscles that you will be training as you play your workout in your mind. Envision the weight you will use and even picture loading it on the bar.
- 2.** Define your goal. Establish a weight you want to lift for each movement. Envision successful execution of this weight in your exercises. Focus. This will generate mental energy, mental intensity.
- 3.** Define your physical goal. How much muscle do you want to develop? How big do you want your arms? How wide do you want your back and shoulders? How thick do you want your chest? Brand this image of yourself in your mind.
- 4.** Keep this focused mindset through your entire workout. Continue to create these images during and between sets. Again, focus.
- 5.** Finally, after each workout I want you to write down a reflection on how you felt while you trained. Could you have trained harder? Did your mind wonder? Were you distracted? Did you get the most you possibly could from each and every rep? What could you have done better?

By keeping a workout summary you make yourself accountable for each workout. This is important. If you don't concentrate on maximizing each workout you're very unlikely to maximize your gains. So take ten minutes in private after each workout to write down your reflection of how well things went and how you can improve.

Max-OT intensity is a level of mental and physical concentration, focus, and exertion that ultimately dictates the success of workout. Training with sub par intensity will yield nothing more than sub par results. The higher the intensity level while you train results in greater stimulation of muscle growth and greater increases in muscle strength. Refining your ability to train with maximum intensity workout after workout will virtually guarantee that you'll move closer to your goal of optimum muscle growth.

Max-OT - Routine 2

I will be outlining another Max-OT routine here. One aspect of Max-OT that I feel is very important is a "muscle-confusing" technique. I believe that to stimulate continuous muscle growth you need to continuously change the overload stimulation. I feel strongly that this change does not have to be drastic. It can be as simple as changing the order you do your exercises for each muscle group. It can be the simple addition of one set for a particular exercise and one less for another exercise.

What does not change are the basic Max-OT principles. No matter how you change your routines, the basic rules apply. Overload is the primary objective. Never change a routine if it results in diminished overload. Never, ever decrease overload as part of a change in your training. Muscle-confusion is not an excuse for reducing muscle overload.

Let's outline a new Max-OT training program.

Monday - Max-OT Legs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
45 Degree Leg Press	3	4 to 6
Squats	2	4 to 6
Leg Curls	2	6
Stiff Leg Dead Lift	2	6
Standing Calf Raise	2	6 to 8
Seated Calf Raise	2	6 to 8

Squats are not substitutable. For building massive leg size and strength there is nothing better than squats. Anything else you do in place of squats will not be as effective. I will be detailing a Max-OT leg routine a little later in the course that does not involve squats because I realize some people are limited by certain injuries. But make no mistake about it, anything other than squats is second fiddle.

One thing to note, even squats done outside the Max-OT parameters (4 to 6 rep range to positive failure) are more effective for muscle growth than leg presses or any other leg movement done within Max-OT rules. Squats have such a dramatic effect on muscle fiber stimulation that I would recommend them even if you have to decrease the overload or weight used for whatever reason. This is the only exercise exception to the 4 to 6 rep rule where this applies. Squats are that important for building muscle.

45 Degree Leg Press is a good exercise for your quads. Make sure you lower the weight slowly and drive it up with force and velocity. You can vary your placement, but normal placement is the best for overall results.

Leg Curls are a direct hamstring isolator. (I'm not crazy about many muscle isolation exercises. Isolation limits overload.) Lower the weight slowly and contract forcefully. Use heavy weight. Most people can use much more weight than they do here. Avoid single leg - leg curls. It makes the exercise take twice as long. It's not efficient and it also limits overload.

Stiff Leg Dead Lifts are the king of all hamstring movements. You know the next day when you have done these. Keep your legs as straight as possible. You don't want to lock your knees, but come as close as you can without actually locking them. (locking your knees can set you up for injuries so be attentive here.) Lower the weight slowly with your back straight and not rounded. As you come up with the weight do not straighten your back all the way out. Stopping before you are fully erect keeps tension on your hamstrings and increases the intensity level.

Tuesday - Max-OT Chest and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Incline Bench Press	3	4 to 6
Dumbbell Bench Press	3	4 to 6
Decline Bench Press	1	4 to 6
Weighted Cable Crunches	3	10 to 12
Incline Crunches (weighted)	2	8 to 10

Incline Bench Press is very straight forward. Lower the weight to slightly higher than the middle of your chest. Do not lower it to your neck. Power up with force. Lower the weight twice as slowly as you drive it up.

Dumbbell Bench Press is a great overall chest exercise. Lower the weight twice as slowly as you drive it up. Rotate your palms inward on the way down and outward on the way up. Make sure you take advantage of the extra stretch that is available when using dumbbells.

Decline Bench Press targets your lower chest. Not much direct work needs to be done here. Flat Bench typically stimulates this area sufficiently. Only one set here. Again, lower the weight twice as slowly as you press it.

Weighted Cable Crunches are the best ab development exercise you can do. Concentrate on isolating your abs throughout the entire movement. With abs, isolation is good.

Incline Crunches are done on an incline bench with a plate in front of your chest. Be sure to contract forcefully at the "crunch" of each rep.

Wednesday - Max-OT Back and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Bent Over Rows	2	4 to 6
Close Grip Pull Downs (using a V-Bar)	2	4 to 6
Pull-Ups (add weight if needed)	2	4 to 6
Cable Rows	1	4 to 6
Dead Lifts (these are powerlifting style dead lifts)	2	4 to 6
Barbell Shrugs	1	4 to 6

Bent Over Rows are best performed on a bench to allow for a full stretch of the upper back muscles. This is an excellent back movement to add thickness and width. Keep your back straight and pull the weight to the bottom of your rib cage with your elbows in toward your sides. Lower the weight under control and stretch at the bottom.

Close Grip Pull Downs are performed on a Lat Pull Down Machine. Use a V bar and pull the bar to just below your sternum. Lean back on the way down about 45 degrees. Stretch and flex at the top.

Pull-Ups are a very effective back movement. Your grip should be about 6 inches wider than your shoulders. I do not recommend gripping a pull-up bar past the bends in the bar. A straight bar should be used. Gripping a bar at an angle puts too much stress on the AC joint and actually reduces the overload on the lats. The same goes for pull downs on a lat machine. Use a straight bar here as well. I'm not crazy about adding weight during pull-ups, but most of us have to. They are beginning to make some really

effective bilateral machines now that simulate pull-ups very well. We have one in our performance center that is absolutely awesome.

Cable Rows are a great back exercise. They allow for excellent muscle contraction at the top of the movement and great stretch at the bottom. Pull the bar to just below your sternum and stick your chest out at the top of the movement. Do not lean back more than 15 degrees.

Dead Lifts work the entire upper and lower back and hit your traps directly. Use a powerlifting style grip with one palm in and one palm out. Grip the bar about shoulder width. Straps can be used. Keep your back as straight as possible and the bar close to your body through the entire movement. With practice and proper technique a lot of weight can be used here. More weight - more muscle.

Barbell Shrugs are a direct and very effective trap movement. Do not rotate your shoulders when you do shrugs. This does not make the movement more effective and invites serious shoulder injury. Lift straight up and lower the weight straight down. Just like its name - shrug. You can do these from the floor to add a bit of intensity and extra overload or you can do them off a rack. Straps can certainly be used here.

Thursday - Max-OT Shoulders and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Dumbbell Press (Palms facing in at bottom of the movement and rotated forward at the top.)	3	4 to 6
Straight Bar Military Press (In front)	2	4 to 6
Dumbbell Side Laterals	2	6 to 8
Lying Tricep Press	3	4 to 6
Tricep Cable Press Downs	3	4 to 6
Seated Overhead Tricep Press (Performed with one dumbbell behind the neck)	1	4 to 6

Dumbbell Press is an excellent mass builder for your shoulders. It allows for a full range of motion and rotation of your forearm during the movement. This allows for a slightly fuller range of motion than straight bar presses. Keep your back straight and chest out. Lower the weight twice as slow as you raise the weight.

Straight Bar Military Press is the king of the shoulder movements. Never do them behind the neck. People assume behind the neck shoulder presses are for rear delts when in reality it places all the stress on the front delts. Performed in front brings more of the total shoulder into play. These can be done seated or standing. Lower the weight twice as slowly as you raise it.

Dumbbell Side Laterals are the most effective medial deltoid exercise. Go heavy. Keep your elbows level with your wrists during the entire movement and turn your thumbs down at the top of the. Raise forcefully and lower slowly.

Lying Tricep Presses are the king of the tricep movements. I recommend doing these with a curl bar to reduce the stress to the wrists. These are best done on a bench with your head hanging off the end of the bench. When you lower the bar lower it behind your head not to your forehead as you see described everywhere. Lowering the weight behind your head gives you a much better stretch on the triceps and creates more power in the ascending portion of the movement. Lower the weight twice as slowly as you raise it.

Tricep Cable Press Downs are an excellent tricep exercise. The Max-OT technique here is to lean slightly into the movement. On the upper portion of the movement allow the bar to brake parallel all the way to about a 45 degree angle to the floor. This increases the stretch on the triceps and provide greater power throughout the movement. Flex your triceps forcefully at the bottom of the movement.

Seated Overhead Tricep Press is performed with a dumbbell. Hold the dumbbell vertically by grabbing the handle with both hands at one end. Holding the weight over and behind your head, lower it as far as possible while keeping your upper arms perpendicular to the floor. Raise forcefully and contract your triceps at the top. Lower the weight twice as slowly as you raise it.

Friday - Max-OT Biceps and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	3	4 to 6
Dumbbell Hammer Curls	2	4 to 6
Curl Bar Curls	2	4 to 6
Leg Lifts (with added weight)	2	12 to 15
Weighted Cable Crunches	2	8 to 10

Straight Bar Curls are still the king of all the bicep exercises. Your form should be slightly loose. A good bit of weight can be used with this exercise. I find most people don't use near as much as they could or should. It's okay to be a little loose with your form as it will allow you to go a good bit heavier. Don't be stupid and swing the weight like a mad man. Use a very controlled form of cheating. Lower the weight twice as slowly as you raise it.

Hammer Curls are done with dumbbells and with your palms facing to the inside during the full range of the movement. It has the appearance of a hammer - thus the name. This targets the outer bicep for that thick look.

Curl Bar Curls are straight forward. Some people call them E-Z Bar Curls. I never like to use the word E-Z when training. Approach these the same as with Straight Bar Curls.

Leg Lifts are for your lower abs. When training abs lower abs should always be worked first. When you do Leg Lifts, make sure the small of your back is touching the floor or bench. Never arch. This correct form can be forced by putting your hands under your butt and lifting your head and shoulders slightly during the exercise. Add weight by lying a plate over your feet and ankles.

Weighted Cable Crunches are the best ab development exercise you can do - bar none. Concentrate on isolating your abs throughout the entire movement. Go heavy. You can go quite heavy on this exercise.

Conclusion

I hope I was able to instill on you the importance of intensity and what it means to muscle growth. Max-OT is unique in that the very design and structure of the program actually increases your ability to harness intensity while you train. It does this from both a physiological standpoint with key biochemical releases associated with short duration high-intensity movements, as well as from a psychological angle by tapping into short term mental concentration and focusing abilities.

Intensity coupled with overload is one of the most significant qualities needed for muscle growth. Max-OT allows for maximum intensity and overload to synergistically work together with the biochemical and physiological responses resulting from this unique training method. Max-OT imparts a "domino-effect" on muscle growth. Each aspect of Max-OT feeds upon each other aspect creating a unique and immensely effective muscle building stimuli. This is why it is so important to follow Max-OT to the letter. It's designed as a total program with each component related to the next.

I have detailed a new routine this week. It changes a few things and shuffles exercise order in some cases. I recommend changing your routine every third week and will continue to layout a new schedule accordingly. Remember, Overload and Intensity!

I hope I have enlightened you a bit more this week on this awesome training approach. The emails I have received so far tell me that everyone is really stoked and already seeing and feeling the gains that Max-OT is giving them. That's just awesome. As time progresses and you begin to master the techniques and theories of Max-OT you will really start to appreciate the power this type of training has on building muscle size and strength.

Max-OT Nutrition Basics - Part- 1

Welcome back. First I want to thank everyone for all the overwhelming positive feedback I am getting on Max-OT. It's very apparent that shown the proper use of the right tools you can totally change the way you think and approach building muscle and strength. As you are finding out, building muscle takes just as much intelligence as it does brawn and determination. Max-OT is about strengthening the mind to help strengthen the body.

It gets me very excited to read the emails I get daily telling me how they wish they had known about this program 5 years ago. Well, there's a lot more to come so keep returning each week as this program builds on itself. One week leads to the next so don't miss a single week.

One last thing before we proceed. Please excuse any typos you may find. My senior editor will be proofing this on Monday.

Nutrition is a very big part of building muscle. It's said that nutrition is 80% of the puzzle. I say it's 100%. That's right, 100%. The actual lifting, the muscle overload, is also 100% of the equation. Intensity is 100% of the equation. Hydration is another 100% of the equation. Mental attitude is 100% of the equation. So far we are at 600%.

Do you get where I am coming from? You can't break down the importance of each component of building muscle and tag a value to it as it relates to the total picture because each aspect is not only important, they are interrelated to the significance of all the other aspects of building muscle.

One is no more important than the other. You can't build muscle if you don't train. Muscle will not grow if you don't train with intensity. Muscle will not grow if your body is not properly hydrated. Muscle will not grow if you lack the proper mental attitude. And, no matter how hard, heavy, and intensely you train, muscle will not grow without proper nutrition reinforcement. Not a chance.

And let me be the first to tell you that your nutritional reinforcement is much more than taking the latest supplement that becomes available. It's about a structured and consistent plan to feed your muscles the nutrients they need to take full advantage of the key and incredibly intricate physiological episodes that happen as a result of training.

The more intelligently you approach your body's nutritional needs the quicker you will maximize your muscular growth. Nutrition plus supplementation is indeed 100% of the equation.

I'm not going to get too elementary nor am I going to get overly scientific about nutrition here. I am going to show you an effective way to calculate your calorie, protein, carbohydrate, and fat requirements for maximum muscle growth. This will lead into next week's course detailing how to eat, when to eat, what to eat, what supplements to take, when to take them, what supplements to avoid, which ones work, which ones don't, and finally how you can design a diet and supplement program tailored to you as an individual.

I'm going to remove the guesswork and provide a clear path for you to follow. I will specify several different supplement and diet programs that will allow you to take advantage of the specific cellular environment each Max-OT workout puts you in.

A major misunderstanding about muscle growth is that it occurs in the gym. This is not correct at all. Muscle growth occurs not in the gym, but during the recuperation period - the time that you are not training. Max-OT training "sets up" the process for muscular growth. This is important to understand as it has a direct impact on how you structure your supplement and diet program. You're not growing while you are in the gym. You are just "preparing" to grow.

This bit of understanding contributes to specific diet and supplement structures that will provide the nutrients your muscles need when they need them and when they can be utilized most effectively and efficiently. It only makes sense to work with your body and the physiological pathways that Max-OT training creates to optimize nutrient utilization.

A haphazard supplement program coupled with a haphazard diet will make building muscle a next to impossible task no matter how you train. You don't want this. In fact, you want to take advantage of every possible opportunity the molecular environment within your muscles presents to encourage rapid muscle growth.

You spend hours and hours in the gym literally punishing your muscles and yourself, so compromising your results because of a misguided nutritional approach is nothing more than self-abomination. You owe it to yourself to extract the most from your efforts. The more you understand what proper nutrition provides to muscle growth the more prepared you'll be to maximize your muscle growth.

The Five Nutritional Elements

You have five major nutritional elements that are of primary concern and have significant contribution to building muscle and minimizing fat. **Calories, Protein, Carbohydrates, Fats, and Water.** Except for calories, which is a measurement of the total energy value of the food you eat, these are the macro-nutrients. How you structure your intake of these five major contributors to muscle growth is important to your overall success and will dictate the results you get from your training.

I want to enlighten your understanding of these basic nutrients and what impact they have on muscle growth.

Calories

Calories are fuel. Whether from protein, carbohydrates, or fat, calories provide fuel your body needs to function. Each day you expend a certain amount of energy. This energy is fueled from the calories you consume. The more active you are the more calories you will burn. Synthesizing protein into new muscle is a caloric fueled activity.

Other factors contribute to the total calories burned such as total body mass, body temperature, thermal effect of foods you eat, and thermal activity of various supplements. Also, the bigger you are the more calories you will burn. And the more lean muscle mass you have the more calories you will burn. All these things must be considered when determining caloric intake.

Calories come from 3 dietary sources - protein, carbohydrates, and fat. One gram of protein contains 4 calories, one gram of carbohydrate contains 4 calories, and one gram of fat contains 9 calories.

As you can see, fat contains 2.25 times as many calories as either protein or carbohydrates. In other words, you can eat 2.25 times as much protein and

carbohydrates as you can fat while still maintaining the same caloric intake. This is an important illustration as to how fat can add significantly to your daily caloric intake.

What do you think will provide more muscle building nutrition, 225 grams of protein or 100 grams of fat? They both provide an identical amount of calories. Knowing the breakdown of your total daily caloric intake is very important and will contribute directly to the results of your training.

Protein

Protein is needed by your body for virtually all growth promoting processes. Protein is a "builder" of cells. Protein is the single most abundant substance in your body next to water. Protein is present in every organ in your body. Protein is essential for blood, hormone, and enzyme production. Protein is also essential for optimal immune system function. And, protein is absolutely essential for muscle repair and growth.

As you can see, improper protein consumption effects much more than just direct protein synthesis. It effects all the trigger mechanisms that control muscle growth.

Weight lifting places a considerable increase in demand for protein by your body. And the more muscle you develop the more protein you will need. Muscle tissue is the major dumping site if you will for protein. It's like a huge protein reservoir. And when you are supplying insufficient protein your body will steal it from muscle tissue whenever it needs it. Muscle breakdown.

Delivering your body a constant supply of protein throughout the entire day is essential for optimum muscle growth. You never, ever want to have your body steal protein from muscle tissue to suffice any of these other functions. This will result in muscle loss.

To maximize muscle growth you want protein available for synthesis at all times. This is of vital importance and is why supplying protein to your body every 3 hours is essential to maximize growth. Anytime your body has to steal protein from muscle you stall and even regress the muscle growth process.

The last thing you ever want is to be protein deficient when your body needs it. You can even consume more than your required amount of protein daily and still be "time-deficient" in your protein needs. This is why timing protein and nutrient intake is so important. You never want your hard earned muscle tissue to have to sacrifice protein to meet demand from other systems in your body.

The importance of protein cannot be overstated. Understanding the need for a continuous supply of protein will certainly set you in the right direction for building muscle.

Protein Sources

I like to breakdown protein into two categories: Whole Food Protein and Protein Supplements.

Whole Food Protein: The best whole food protein sources are chicken, turkey, lean red meat, fish, eggs, and milk. These are the protein sources that nature supplies and they are excellent forms of protein that certainly should be included in your daily diet.

Protein Supplements: Protein supplements are a completely different story. The advances made in food science and protein technology over the past 5 years has

revolutionized the supplement industry. And nowhere has the advancement been greater than in protein supplementation.

In 1992 we started doing an extensive amount of research into whey protein and the emerging science on its effect on nitrogen retention, weight gain, and protein deposition. The information extracted from this research was revolutionary in what it resulted in.

Although whey protein had been used in the past, the processing techniques used and the resulting end product were very crude. To make whey protein more viable, we sought out new processing techniques in an effort to yield a higher protein concentration and more efficient, higher quality whey protein supplement. What we came up with revitalized and revolutionized protein supplements and set a new standard in whey protein development.

VyoPro Whey Protein was the first protein to incorporate advanced processing techniques. This enabled us to produce a highly concentrated whey protein without denaturing the delicate protein fractions. The result was a protein source with the highest nitrogen retention capabilities of any other protein made.

Since 1992 we have updated and refined VyoPro Whey Protein no less than 9 times. As protein technology advances in the lab and through research, VyoPro Whey Protein has incorporated these advances to provide the latest in protein science. I can't think of any other product available that has continued in refinement. **In fact, what you currently have in the whey protein market is a regression in protein refinement, quality, and certainly muscle building effects in lieu of lower costs.**

Whey protein is more or less a commodity now. Because of our country's patent laws you cannot be awarded patents for ingredients such as whey. You can patent certain procedures used in the manufacturing process, but you can't patent the product itself. Unfortunately this leads to a huge distortion in product quality and effectiveness that can still capitalize on the name of the main component - whey protein.

To illustrate my point, as a raw ingredient, you can purchase whey protein for as little as 34 cents a pound or as much as \$8.00 a pound. And basically you are getting exactly what you are paying for with each price increment. In most cases, when you buy a 5 pound container of whey protein for \$30.00 the company is making much more profit off you than a company selling you 2 pounds of a high-quality, properly processed whey protein for \$40.00. You can bet your ass that the protein used in the \$30.00 - 5 pound whey protein is much closer to the 34 cent per pound range. This is the same protein used in cake mixes, potato chips, gravy mixes, and even low cost cattle feed.

Just because a container says "whey protein", it's no guarantee you're getting a suitable protein for building muscle. We have performed a number of tests on different whey protein supplements and found some to contain less than half the protein as claimed on the label. This is not uncommon and with the proliferation of the low cost whey protein being offered you can bet it will just become more widespread.

Bottom line is that whey protein is not created equal by any sense of the imagination. Skip on the quality of the whey protein you use and you're doing nothing but robbing your muscles of the growth potential that is available to them. Think about the pain, the dedication, the sacrifices, and everything you give up to train as hard as you do. Why would you diminish the results of those efforts by skimping on protein?

We have established, and by now you should be keenly aware, that protein is the most important nutrient for muscle growth. This is a "no-compromise" area of supplementation. What I'm trying to say is if you forgo quality for price (like you see in

the \$30 - 5 pound tubs of whey) then you will certainly pay the price in poor protein utilization, poor muscle growth, and poor results.

The first question that most will ask is, *"How much protein should I be consuming each day?"*. This is important and over the years I have refined what has shown to be the most effective protein intake levels for building muscle.

Your daily protein intake should account for no less than 53% of your total caloric intake. This caloric intake percentage is important as it will also effect the protein intake level depending on the individual and their specific caloric needs. Everyone is different and although two people may have the same physical build and weight, they could differ drastically in the amount of calories they require to maintain a steady bodyweight.

So if you are 200 pounds and eat 4000 calories per day then your protein intake will be 530 grams per day ($4000 \times 53\% / 4 = 530$). If you are 200 pounds and eat 3100 calories per day then your protein intake will be 411 grams per day ($3100 \times 53\% / 4 = 411$).

There are individuals who have ultra-slow metabolisms and eat fewer calories per day. Less total calories will mean less total protein intake. When trying to gain muscle mass you never want to go below 2 grams of protein per pound of bodyweight per day. If you weigh 200 pounds and you're trying to gain muscle mass you want to make sure you are getting at least 400 grams of protein per day.

To some of you this may sound excessive, but believe me it's not. If you need to consume 4000 calories per day in order to fuel muscle growth, you need to realize that the calories have to come from somewhere. If you lower your protein intake or don't meet the 53% level, but you are still taking in 4000 calories, then those other calories are coming from somewhere else - either carbohydrates or fat. And let me tell you, carbohydrates don't build muscle and fat certainly does not build muscle. **Only protein builds muscle.**

To put this protein level into perspective, **400 grams of protein is only 1600 calories.** So though the total number may seem large it's really not.

Remember, only protein builds muscle. **No other anabolic stimulus can build muscle without protein to supply the building material.** The more efficient the protein and the higher the quality, the more effectively it will contribute to muscle growth.

Again, **quality of the protein is of utmost importance.** If you're consuming 400 grams of a cheap, low quality whey protein, you'll still be cheating your body out of the muscle building material it needs to grow optimally. It's like using a cheap paint to paint your house. You might initially save money, but before the job is done you will have spent more money and much more time and effort applying the extra coats of paint just to get the desired results.

Carbohydrates

Carbohydrates are a very misunderstood nutrient and because of this there are many misguided diet plans and suggestions floating around, lately however, even mainstream diets are starting to realize carbohydrates contribution to weight maintenance and body composition.

Carbohydrates are a fancy name for sugar. This may be a bit confusing, but the end result of a baked potato and a spoon of sugar are the same - glucose. In other words, a

baked potato and a spoon of sugar, when both are processed in the body, the final result is the same - they both turn into glucose.

Carbohydrates, once converted to glucose, are used to fuel muscle energy and brain function.

Carbohydrates come in essentially two forms - **simple** and **complex**. Simple carbohydrates are things like fruit, honey, and table sugar. Complex carbohydrates are things like potatoes, pasta, vegetables such as corn (carbohydrate powders are derived from corn), rice, and grains.

The main difference between simple and complex carbohydrates is the time it takes for the body to convert them into glucose. This is important and is the reason complex carbohydrates are favored over simple carbohydrates. Complex carbohydrates tend to give a more gradual and sustained energy release. Simple carbohydrates give a sharp energy increase usually accompanied by a sharp decline in energy as well.

One thing to realize is that once the carbohydrates you have eaten have been converted to glucose, what is not used to fuel body functions and replenish muscle glycogen is shuttled into fat stores. This is the nemesis of overeating carbohydrates. Unused carbohydrates will make you fat.

Carbohydrate consumption should be viewed as an energy source to provide glycogen to fuel muscle activity. Your primary goal with carbohydrates is to provide enough for this task each day and no more.

Now to the question, *"How many carbohydrates should I consume per day?"*. Carbohydrates should total about 37% of your total calorie intake. If you eat 3100 calories per day 1147 of those calories or 287 grams should come from carbohydrates. ($3100 \times .37 / 4 = 287$)

I prefer (and your body prefers) to derive the majority of these carbohydrates from complex carbohydrate sources. The only simple carbohydrates should come from some fruit or from engineered dextrose like that in Creatine HSC. As you know you want to keep the junk food to a very minimum. I have to admit though, there's nothing like a nice chocolate cake, or Little Debbie Snack Cakes, but these must be avoided.

By keeping your carbohydrate intake around 37% of your total calories, you are providing enough fuel for your muscles and other body functions while keeping excess carbohydrates from converting to body fat. And consuming mainly complex carbohydrates you are supplying a steady energy source without peaks and valleys associated with high simple carbohydrate consumption.

Fats

Fats are the most dense energy source available. Each gram of fat contains 9 calories. Over 2 times that of protein or carbohydrates. This energy density means that you can eat a much less amount of foods high in fat and hit your calorie limit very quickly.

Fats are a necessary nutrient essential to the body for many vital functions. The thing is you just don't need very much and most people consume far more than is needed from a functionality standpoint.

Aside from saturated fat and trans fatty acids, all fat is not bad, it's the excess calories that come with it that are bad.

Fat does not make you fat. Excess calories make you fat. If you burn 3000 calories a day yet you consume 4000 calories, you're going to increase your body fat. It doesn't matter how low your fat intake is. If your caloric consumption exceeds your caloric expenditure, you add body fat.

The key thing here, as I stated earlier, is that fat is very calorie dense. You can eat twice the amount of protein as fat and still consume less calories and the protein, as you know, fuels muscle growth and repair.

Structured Lipids

We know that some fats are essential, and lately research has uncovered some really unique and interesting traits certain fats possess. One fat in particular, [CLA](#) - conjugated linoleic acid - has a unique ability to decrease body fat levels and increase muscle mass. CLA is a very interesting lipid and has also been shown to have anti-cancer properties.

CLA is found in beef, cheese, and milk, but only in small amounts. By conjugating linoleic acid, scientists can produce CLA in supplement form allowing you to extract the nutrient-partition effects of CLA without the unwanted calories that would come from the foods rich in CLA.

Many people supplement with fats such as borage oil and flaxseed oil. Not a good idea. People just need to stop running out and buying a supplement just because they read an article on praising its effects.

Other than CLA, supplementing with fats has no real place in building muscle. If you keep your whole food intake varied and include fish several times a week and maybe add a teaspoon of olive or safflower oil to salad every now and then, you can leave the fat pills for someone else to buy.

How Much Fat

Now to the question, *"How much fat I should consume per day?"*. Keeping fat intake to about 10 percent of your total caloric intake is optimum. This is plenty of fat for all necessary functions it provides in the body and limits the empty calories associated with fat intake.

If you eat 3100 calories per day 310 of those calories or 34 to 35 grams should come from fat - $(3100 \times .10) / 9 = 34.4$.

When following a lean diet high in protein and moderate in carbohydrates, your fat intake typically takes care of itself. But it is essential that you read labels and study up on the nutritional breakdown of various foods so you will have a sound understanding of which foods are high in fat and which ones are not.

It would be wise to purchase a book that lists all the foods and the nutritional values to have handy when you need it. I recommend *Nutrition Almanac*. This is an excellent reference source that gives a listing and breaks down the complete nutritional contents of just about every food you can imagine. This is certainly a worthwhile purchase.

Water

Water is an essential part of life and a very integral part of building muscle. After all, your body is 2/3's water and your muscles are approximately 70% water. It's the most abundant element in your body. Nutrient digestion, transport, and absorption is

dependent on proper fluid intake. Water effects cellular nutrient uptake and circulation. Water is critical for flushing toxins from the body. Every physiological activity is negatively effected when hydration is compromised.

Water also helps properly regulate body temperature and is responsible for the utilization of all the water soluble vitamins your body needs to survive. **Water is essential, cheap, and can have a very big impact on how well your body is able to build muscle.** Water helps prevent injuries while training by cushioning joints and other critical soft tissue areas. I can't stress enough the importance of drinking abundant amounts of clear, clean water.

And one important thing about water is that it's non-caloric. You can drink as much as you want and it will not add to your caloric intake. It will not make you fat. There is no downside to water so drink it in abundance.

I highly recommend drinking at least 1 gallon of pure water every day.

It's not as difficult to drink a gallon a day as you may think. People have different ways of doing this. Here are a few tips:

- Keep a quart of bottled water at all the places you spend most of your time.
- In your car.
- At your desk at work.
- Carry one with you when you train.
- Even on your night table.

This allows you to have continual access to water all the time and you can drink continually throughout the entire day and even night.

I actually keep a [Brita](#) filtering pitcher at my desk that allows me to have filtered water at arms reach all day long. I know I need to empty this pitcher each day and this allows me to visually see where I'm at at any point during the day. You can get these at Wal-Mart and I would certainly recommend getting one for both at home and work.

Calculating Your Caloric Requirements

Okay, now you have a good understanding of the essential nutrients and their importance in building muscle. Now let's calculate how many calories you should be consuming each day in an effort to build maximum muscle.

This is just a guideline you understand. Every person has what I call "**metabolic-individuality**". Two people may weigh the same and have the same build yet one could require 500 more calories a day to maintain his current body weight than the other. This is "metabolic-individuality".

Your body requires energy - calories - just to exist. Even sleeping your body burns calories at a rate 70 to 100 calories per hour. This is called Basal Metabolic Rate - BMR. BMR estimates can be calculated with decent accuracy, but there are variables such as sex, age, body size, body weight, and of course "metabolic-individuality". Even so, you can get a good number using the BMR Variable .42 multiplied by your bodyweight to find the calories per pound of bodyweight per hour. Women should use the BMR Variable .35.

So using the above formula, if you weigh 200 pounds your BMR would be $200 \times .42 \times 24 = 2016$. That's 2016 calories per day or about 252 calories every 3 hours. Now remember this is just to sustain your bodyweight as it is with no activity at all.

To figure out your total caloric needs you would have to factor in the activities you perform during the day and how long you perform them and then add the calories burned to your calculated BMR. This is not difficult and only requires a chart that lists calories burned during specific activities for your bodyweight.

If you are a moderately active person I have found that to structure a caloric level for gaining muscle mass you take the BMR formula above and substitute BMR Variable .65 for .42. If you weigh 200 pounds your caloric level you want to set would be $200 \times .65 \times 24 = 3120$. That's 3120 calories per day or about 390 calories every 3 hours.

Calculating Your Protein, Carbohydrate, and Fat Requirements

Once you have your daily calorie target figured out then you can calculate your protein, carbohydrate, and fat requirements.

Using the calories calculated for 200 pounds we will first find your protein target. Your protein intake would be 413 grams - $(3120 \times .53)/4 = 413$.

To calculate your carbohydrate intake you will use the multiple .37. Your carbohydrate target will be 289 grams - $(3120 \times .35)/4 = 289$.

Fat intake will be 35 grams - $(3120 \times .10)/9 = 35$.

It's pretty simple and an excellent guideline to follow. Now remember "metabolic-individuality". Everyone is different, but all that you will need to change is the BMR Variable number to derive a higher or lower caloric figure. After a month or so you should be able to get this number right on the money. And after a few Max-OT training cycles and Max-OT diet programs you'll be able to fine tune your caloric intake with razor precision.

You'll no longer have to guess at what, when, and how much you need to eat to get where you want to be.

Here's a calculation recap for a body weight of 200 pounds.

Calories - 3120

$$(200 \times .65) \times 24 = 3120$$

Protein - 413 grams (1654 calories, 53%)

$$(3120 \times .53)/4 = 413$$

Carbohydrates - 289 grams (1156 calories, 37%)

$$(3120 \times .35)/4 = 289$$

Fat - 35 grams (315 calories, 10%)

$$(3120 \times .10)/9 = 35$$

To get your caloric needs all you need to do is replace 200 with your actual bodyweight in pounds. If you are working in kilograms then multiply your bodyweight by 2.2 and replace 200 with the result.

Max-OT Mass Building Diet and Supplementation Program

Below is a structured diet and supplementation plan that follows the Max-OT nutrition parameters. You will need to make modifications or adjustments to the actual serving sizes to accommodate your individual body weight and to meet the 53/37/10 - protein, carbohydrate, to fat ratio.

Meal 1 - 6:00AM

1 packet of [Ny-Tro PRO-40](#) mixed with 16 ounces of skim milk and 1 serving of Micronized Creatine

Meal 2 - 9:00AM

2 servings [VyoPro Whey Protein](#) mixed
in 10 ounces of skim milk
1 large apple

Meal 3 12:00PM

2 grilled chicken breasts
1 Serving Rice
1 cup of low-fat Yogurt
1 serving VyoPro Whey Protein in 8 ounces skim milk.

Meal 4 - 3:00PM

1 packet Ny-Tro PRO-40 mixed with 16 ounces of skim milk and 5 to 10 grams of [GL3 L-Glutamine](#)
1 large banana

Pre-Workout

2 [Dymetadrine Xtreme](#)
1 [VYO-PRO High-Protein Bar](#)

Meal 5 - 6:00PM (Post-workout)

2 servings [VP2 Whey Isolate](#) combined with 1 serving Creatine HSC mixed in cold water. (This is an important meal and is designed for an insulin spike at just the right time to increase creatine and amino acid uptake by the muscle cells.)

Meal 6 - 7:00PM

8 to 10 ounces of lean round or flank steak
1 large serving of rice
1 medium baked potato
1 large green salad

Meal 7 - 10:00PM

1 packet of Ny-Tro PRO-40 mixed with 9 ounces of skim milk.
1 large banana
3 to 5 grams of GL3 L-Glutamine
(Mix the Ny-Tro PRO-40 and GL3 in a large bowl into a smooth pudding. Slice the banana on top and eat. It's a dessert.)

This is a very, very effective diet and supplement program for adding muscle mass. Add this to an intense Max-OT training program and you can't help but put on muscle.

This diet and supplement program is designed to provide a steady supply of nitrogen yielding protein while actively maintaining proper insulin levels throughout the day. It also integrates with your workout and provides a potent insulin spiking meal supplying bio-active peptides and micronized creatine to take advantage of the unique and very critical "window" created by intense Max-OT training.

Conclusion

Well this wraps up the basic portion of Max-OT nutrition. To some of you this was a refresher. To some this was completely new. I hope I conveyed the importance of protein and what it means to muscle growth.

Max-OT nutrition is a bit unorthodox in comparison to normally accepted nutritional practices, but then again so is Max-OT training. That's why it works so well. Instead of rehashing old training ideas, Max-OT uses sound, fundamental, physiological feedback to give the muscle what it needs to respond and grow.

Max-OT nutrition follows the same trail. By looking at the very basic and fundamental nutritional triggers that support muscle growth and refining the "how-to" and "how-much" of the basic nutritional understandings of building of muscle, I have detailed a specific and very accurate way to determine your most important nutritional needs.

Now you have a specific guide and formula to calculate exactly how many calories you should eat each day. You can now calculate the exact amount of protein, exact amount of carbohydrates, and the precise amount of fat to put your body in anabolic-overdrive.

Match this nutritional approach with the most effective training program and you'll be set to see gains in muscle size and strength like you have never seen before.

Next week I will detail specific supplementation programs to enhance muscle growth, energy, intensity, and fat loss. I will tell you which supplements work and which ones

don't. I will also shatter the myth of sodium intake and show you how you can use sodium to help not only enhance muscular gains, but also reduce injuries, increase strength, and also increase the effectiveness of key supplements.

As you can see, the idea is to put on muscle and not fat. Sometimes this is tough to monitor. I have been working with a company out of Hong Kong in the development of a reasonably priced computerized fat monitoring caliper. It uses one of the most effective, private, and certainly convenient methods to keep track of body fat levels.

Tracking your body fat when employing different training, dieting, and supplement programs is a perfect way to see just how effective changes in your programs. This computerized body fat monitor is the neatest thing I have seen to measure body fat and monitor it as you progress. I'll let you know when we have things finalized and when it will be ready. In the meantime, if you would like to be notified when it's available just make sure you sign up for our [**email notification service**](#).

Lastly I will detail the third Max-OT training program.

Max-OT Nutrition Basics - Part- 2 - Supplementation

Welcome to week 5. By now you should be getting a good feel for Max-OT and just how effective it is. Isn't it nice to train less and gain more? Well in the second part of this week's lesson I will detail a Max-OT workout that is shorter, and by applying the right intensity you can realize even more gains.

The more I hone and refine Max-OT the more I find that the greater mental and physical intensity you can generate while training **the less you need to train**. Training with the right intensity levels can easily generate maximum growth promoting overload with just 4 to 6 sets per muscle group. **With high intensity, sharp mental focus, and maximum overload, less equals more.**

If you haven't guessed it yet, intensity is the main underlying factor that will determine the extent of the results you get from training. Intensity is something that can't really be spelled out or defined specifically. It's not something you can learn from just reading. I cannot lay it out in a regimented form like I can a workout. Intensity must be earned as much as learned.

Throughout this course I will give you intensity tips and hints to help you increase the levels you train with. It's different for everyone. But one thing is for sure, you can always train harder, concentrate more, and increase your intensity. And this is something you must strive for with each and every workout to keep the gains coming. Always strive to make your next workout better, heavier, and more intense than your last.

To start things off this week I'm going to talk about the most hype-filled and fraud laden area in all of bodybuilding - supplements. Now as you're well aware, AST Sports Science is a supplement company. We have been in business since 1987. I am very proud of the fact that we have introduced some significant innovations to the sports nutrition world. But I must admit, when I look through the magazines and see the blatant lies used to promote supplements these days it makes me sick.

Over the years I have seen it all. I've seen companies come and go. I've seen the fall of each and every magazine from a source of training and nutrition information into blatant monthly promotional catalogs. This industry has sold out and it has done this at your expense.

Will I be a little biased? No I will not. I have no reason to be. Will I recommend another company's supplements? Probably not. Why? Because I have seen way too much fraud in this industry to blindly recommend another company's products that I have no clue as to the quality of the ingredients or the procedures used to produce it. That would be doing you a disservice.

The Magazines and Their Degradation of This Industry

It's no wonder there is so much confusion about supplements these days. Each month there are no less than half a dozen bodybuilding magazines, each with their own agenda and own line of supplements, feeding you a load of crap about the latest supplement that they sell.

This does nothing but breed confusion. And you know what? Each month if you buy these magazines you're paying them to lie to you. And let me tell you something, I am not just taking about some slight exaggerations here, I am talking total lies about their supplements and their effects.

Here is a list of the magazines and their underlying supplement companies.

MuscleMag International and Oxygen

This is the worst example of self promoting I have ever seen. *MuscleMag* is controlled by MuscleTech. Anytime you see an article in *MuscleMag* about a supplement it is a MuscleTech product. How people can buy into this magazine and its monthly editorial content directed solely at selling MuscleTech supplements is beyond me. It's so obvious you would actually have to be brain dead not to realize it.

Don't be fooled in the slightest by what looks like articles in this magazine. They are not articles at all. They are "advetorials". They are strictly ads written to look like articles in order to give them an appearance of legitimacy.

Oxygen is the female oriented counterpart. Same thing just aimed at women.

IronMan Magazine

Ironman was the last magazine to fall. And fall hard it did. Now each month that *Ironman* comes out you get a monthly thrashing of MuscleLink ads disguised as articles. *Ironman* runs a very close second to MuscleMag in their deceptive promotional practices. Any *Ironman* article about nutrition or supplementation is nothing more than an ad designed to induce you to buy their products.

Muscular Development

Muscular Development is Twinlab's mouthpiece. This magazine is not near as bad as *Ironman* and *MuscleMag*, but nevertheless, the nutrition articles are in there to help sell TwinLab supplements. It's also used extensively to bash other products that TwinLab does not sell. Like Androstenedione.

Muscle & Fitness and Flex

Both *Muscle & Fitness* and *Flex* magazines are owned by Joe Weider and thus are selling vehicles for Weider supplements, Metaform, MuscleTribe, and numerous other companies owned by Weider.

Actually the Weider magazines don't fall into the same category as *MuscleMag* and *Ironman*. Other than plastering photos of Weider products in all the articles, they do not take as blatant an approach as the others. Still you must read the articles with a jaundiced eye.

Muscle Media

This is the magazine that started the new generation of "advetorial" supplement promoting. Their first supplement was Met-Rx. *Muscle Media* promoted Met-Rx through articles in issue after issue. It was that promotion that made Met-Rx such a popular product.

After a fall out with the owner of Met-Rx, contracts were not renewed. Along came EAS. *Muscle Media* then became a promotional vehicle for EAS which it remains today.

Its promotional approach has toned down considerably in last couple of years, but is still the primary promotional tool for EAS supplements.

As you can see, **every magazine** is tied to a supplement company. Your chance of getting objective, non biased information about supplements doesn't exist through today's magazines. What you are getting is information designed to sway your opinion in favor of the magazines underlying supplement. That's what it's all about. They might try to make it look different, but the bottom line is today's bodybuilding magazines are primarily designed to sell the supplements that the magazines are financially connected to.

Kind of sneaky don't you think? You're under the impression you're reading an informative article on a new supplement when what you are really reading is an ad that is made to look like an article. How can you possibly expect to get the "real" truth when what you are getting is an ad?

How can this be legal? Well, truth be known, it's not. The FTC is looking into this facade and by all means should be. There is no doubt heads will roll.

So what about *High-Performance Muscle*, AST Sports Science's magazine? *High-Performance Muscle* is a magazine we put out to provide extensive information on training, nutrition, and supplementation. It's owned by AST Sports Science and is designed to help educate the consumer about AST Sports Science Supplements. The big difference here is that there is no hiding this fact. We don't disguise articles and sneak our products in there to subliminally create a sale. When you read *High-Performance Muscle* you know it's from AST.

This is the big difference here. *High-Performance Muscle* is a guide to getting the most out of the supplements we develop. It tells you so much more than we can tell you in an ad or a brochure. Our magazine is designed to give you information you can use to get results.

The same holds true for our ever-expanding web site. I challenge you to find a more informative web site anywhere. I work long hours to bring you the type of information you can put to use to make a difference in your training.

So many people are misinformed by the magazines out there and it's very unfortunate. How does it feel to know that most of the information that you read in the magazines is wrong, misleading, or completely inaccurate? It's a crime. And they're stealing money from you at the same time.

My advice to you would be to not buy these magazines. In fact, this is one of the best pieces of advice in this entire program. That's how strongly I feel about this.

You need to rely on a source of information you can trust. If a magazine is disguising the fact that they own or that they are financially tied to a supplement company, then how can you possibly hold any credibility in what the magazine says? In my opinion you can't.

Here's a little challenge for you. Go to the store and look at a *MuscleMag* magazine. Count the number of pages of MuscleTech ads in there. Then go to the beginning of the magazine and turn page by page and count the number of times you see a picture of a MuscleTech product in the pages that are not ads. Next, scan (don't lower yourself to

reading) each article and count the number of articles written about MuscleTech products.

Now if there was any doubt about the *MuscleMag* - MuscleTech association this should erase it. You can do the same thing with *Ironman* and Muscle Link. And all this time you thought there were so many MuscleTech articles in *MuscleMag* and Muscle Link articles in *Ironman* because they were good supplements. Not so at all. They are in there because they run the magazines and control what you read.

I believe that if you are aware of the connections between the magazines and supplement companies you'll be much better equipped to judge the validity and truthfulness of the articles in them. Without this knowledge you are a sitting duck for the con job they are trying to pull.

I am continuously amazed at how many consumers are clueless to the magazine - supplement connections. Our customer service personnel continuously field calls from customers that say, "*They read about in a 'such and such' magazine.*" I answer email after email about supplements people read about in the magazines and they are completely unaware of the relationships.

Knowledge really is power, and in this case knowledge can save you a lot of money. You are spending your hard earned money to try and improve yourself and the last thing you need is to be lied to by the magazines and supplement companies you are spending your money with.

Are You Getting What You Pay for?

I hope I have given you a little insight into one ugly side of the supplement industry. There are other ugly sides as well and they hit you just as hard.

Supplement Quality - Do you get what you pay for?

This shouldn't even be an issue. When you lay down your money for a supplement you should get exactly what you pay for. It's a shame I have to waste time even writing about this, but it's a very big problem.

There are so many supplements on the market that do not meet their label claims it's insidious. In fact, more supplements probably don't contain what their labels say than supplements that do. This is a real problem. If you knew a supplement didn't contain what the label said would you buy it?

There are several reasons this problem exists. The sports nutrition market is very competitive. There are a lot of products jockeying for the same dollar. In order to get an edge in the marketplace companies have to lower their prices to get the retail stores or customers to even consider buying them. So how can a company afford to lower their price and still make money to cover overhead and make a profit? You guessed it, they cut corners.

If a company can make a supplement and only put 80% of what the label says in the product they immediately give themselves a 20% margin advantage in which to price their supplements. 20% is a big margin in this business. They can sell their product for 20% less and still make the same profit as a legitimate company that produces true to label, quality products.

Guess what? This happens all the time. It's common practice among the no name brands and it's not uncommon in the larger, well known brands either. It's a cancer in this industry that totally rips off the consumer. This tells me two things about the companies that do this, they don't give a rat's fat ass about their products or about you.

How can you spot if you are being ripped off?

This is the bad part. Aside from actually testing the supplement you really can't tell. Unless the actual supplement is tested by a certified laboratory you're just going to have to trust your supplier and the manufacturer.

This problem is primarily manifested out of greed and total disregard for the consumer. I remember a few years ago we tested some whey protein from two different companies - Sci-Fit and American Sports Nutrition. The results: These were two of the worst protein supplements we have ever tested. They each came up below 50% of what their label claimed. The labels said 25 grams of protein per serving and they actually tested out to contain less than 13 grams per serving.

Can you believe that? You're buying a protein supplement and you think you're getting 25 grams per serving, but really getting somewhere around 12 grams! Friends, as a consumer this is what you are up against.

Here's an even more pathetic problem. I remember after testing these two particular protein powders we contacted the stores that were selling them to let them know how they tested. And guess what? This really blew me away. They didn't care! The store owners did not care! Can you believe that? Because they were making such great margins on these products (Of course they were, they contained less than half what should have been in there.) they could care less what the tests revealed. Even when they were showed the tests they still did not care.

This attitude makes it even tougher on the customer. If the store where you buy your supplements doesn't care what the quality of the supplements are they sell you, then you are in real trouble.

And to make matters worse, these types of stores push these products because they are making larger margins. They are selling it to you cheaper and still putting more money in their pocket. You leave the store thinking you've just got a great deal when what you really got was stuck right in the ass.

Building muscle is tough enough, but combine that with the fraud perpetrated by the magazine/supplement company connections and the poor quality and mislabeled supplements the uncaring companies and store owners are selling and it's a depressing situation.

What can you do to insure you're getting what you pay for?

Unless you have access to a lab that can test the supplements you buy, you really have nothing but total faith in the supplement company you deal with to go on. That's it. You have to trust your source. And let me tell you, there are only a few that can be trusted. This is a sad fact.

Over the last 15 years I have seen the supplement industry do a full circle. You see, AST was formed in 1987 because, at the time, the supplement industry had few if any quality supplements. There was egg protein, liver tablets, amino acids, smilax, boron, and a host of other products that did little if anything for muscle growth. At about the same time

there were a few supplement companies starting to pull the "sell the label - not the product" game.

This is when I first started to test a few supplements that looked "too good to be true". Sure enough, labels were way off. Well, I started to publish the test results as well as reveal some of the scams going on in the industry and before long people started to take notice. The bad guys were furious that their cover had been blown.

Through all this what we found was that not only were the products on the market baseless from a research standpoint (they didn't work), but they also were testing out way short of what their labels said they should. If you're paying for a product that doesn't work at least you should get 100% of what doesn't work.

As all this data was piling up AST's mission became very clear. AST would be a research based company that produce products that had a physiological effect to enhance performance, and AST would make sure all products were produced to the highest standards for 100% potency and purity. Believe it or not this was a novel concept in the industry - and it still is.

Over the next few years, as we revealed the underhanded tactics most supplement companies were using to push their products, things started to get better. Some companies slowly started to clean up their act. We were making progress. It felt good to see things heading in the right direction in the industry.

As things improved athletes started getting results with the new products they were using and the supplement industry really started to grow. If something works word will spread. As the years went by new supplements started emerging that produced substantial physiological benefits. Then things slowly started to deteriorate.

As the supplement industry has grown it once again has started to attract the bad element. The shysters and crooks have made their way back into the fold. With the enormous growth in fitness and the awareness of the benefits of scientifically proven supplementation, supplement companies have popped up everywhere. All looking for a piece of the pie.

And what do these companies bring to the table? Certainly nothing new. What they typically do is copy the best selling products that the truly innovative companies produce and slap their own label on them. That's it. No research. No diligent work to improve upon an existing product. They simply copy the theme of the hot selling products, give their company a fancy name that would lead you to believe they're involved in some sort of actual research, and off they go. Cutting corners, cutting prices, and giving you some low quality, under spec products to cloud your supplement choice.

It's this bad element in the industry today that certainly casts a cynical shadow over the effectiveness of nutritional supplements.

I am Committed - AST Sports Science is Committed

I am proud to say that since the inception of AST, our commitment to producing the most effective, highest quality, scientifically supported performance nutrition has not wavered. AST Sports Science is even more committed than ever to continue our innovation and research into advancing the science of sports nutrition.

It is my commitment to you, myself, my employees, distributors, and the industry to be a leader in the field. To bring respectability to the industry and to continue to expose the fraud.

I must say that this does not make me the most popular person inside the industry, but I could care less. My job is not to win the admiration of the scum of the industry. My job is to bring you, my customers, the best supplements, the latest research, and a continued flow of information that you can use to enhance your mental and physical performance. That's what drives me each and every day.

With AST Sports Science you are guaranteed the absolute best money can buy. You have my personal guarantee.

Okay, enough with the bad and ugly and on with some information you can use to help you succeed.

Piecing Together The Supplement Puzzle

Let me first start off here by telling you that you do not need supplements to get results. However, there is no doubt and science clearly demonstrates that proper supplementation will definitely accelerate your muscular gains.

Why take supplements?

It's pretty obvious why we take supplements. We want to get the benefits these supplements provide to help us increase strength, increase muscle size, decrease fat, increase endurance, and increase our overall physical performance. Many supplements make this possible and many supplements don't. I am going to go over the major supplement categories and give you my opinion on which supplements are worth a try or not.

One thing supplements certainly provide is a convenience factor unachievable by any other means. With the right supplementation you are able to get physiologically significant nutrient amounts that will impart a performance advantage over food intake no matter how great the quantity of your food consumption. Supplementation makes the impossible or impractical possible in this respect.

What works and what does not.

First off, AST Sports Science can produce any product we want. You name it and we can make it. However, AST Sports Science only develops and markets supplements that work. We do not chase supplement fads no matter how profitable they could be. We leave this to the other companies. Lord knows the confusion element is high enough without us adding to it.

So a careful look at the products we offer will give you a pretty good run down of the supplements that work. And quite frankly, if you don't see it on our product list then chances are quite strong that it's not a worthy supplement.

Protein (Whey Protein)

Protein is the major nutrient responsible for muscle growth and repair. Careful attention should be paid to not only the quantity of your protein intake but the quality as well.

When taking a protein for its nitrogen supplying capabilities whey protein is miles ahead of any other type. As I have said before the quality of the whey protein you take will make all the difference in the world. The higher the quality, the better your results. It's as simple as that.

There is some interesting research surrounding whey protein and its benefits for muscle growth and fat loss as well as immune system enhancement. A recent study showed whey had an ability to shift body composition in athletes in favor of lean tissue.

I recommend taking a combination of [VyoPro Oligopeptide Whey Protein](#) and [VP2 Oligopeptide Whey Isolate](#). These are the two highest quality and most effective protein supplements available. If you want the very best then these are your only two choices.

Weight Gainers

Weight gainers were popular years ago mainly because of the name itself. I know of no current weight gainer that is worth taking right now. The ones that I have seen are all way too high in sugar and too low in protein. Basically what they do is add a bunch of nutrient sparse calories that go more toward increasing fat than muscle.

I recommend avoiding at least the current crop of weight gainers. If one comes along designed properly I will certainly post it on our site. As for right now, leave the weight gainers on the shelf.

Amino Acids

These used to be popular the same time the weight gainers were. Multi-spectrum amino acids (amino acid tablets with many different amino acids in them) are nothing more than crude protein powder compressed into tablets. So it's like taking protein in tablet form.

There are some free form amino acid supplements, but the science here doesn't cut it. In fact, there was no science showing that supplementing with them provided any benefit in athletic performance.

Multi-spectrum free form amino acids may pose an absorption problem due to the varying molecular weights of the individual amino acids. This can cause different absorption rates and characteristics among the different individual amino acids.

I don't recommend taking multi-spectrum amino acid supplements. Singular amino acids are a different story especially when taken in doses that impart a definite physiological effect.

HMB

Doesn't work. A recent study to evaluate the effects of HMB on individuals with weight training experience showed that HMB had no positive effects on muscle growth or strength. [See this research review](#).

HMB is not recommended.

BCAAs

BCAAs are Branched Chain Amino Acids consisting of Leucine, Isoleucine, and Valine. BCAAs are unique amino acids in that they are metabolized in muscle tissue and not the

liver. They are absorbed rapidly and support muscle metabolism. BCAAs make up about 70 percent of the amino acids in your bloodstream.

BCAAs are best derived from whey protein than the BCAAs supplements themselves. It's more economical this way and there is evidence suggesting a higher rate of absorption through whey protein.

Creatine

A must use supplement for strength and even endurance athletes. Creatine increase muscle fiber size, strength, and dynamic power.

There are many different creatine supplements on the market. Make sure the quality is high.

I recommend [Creatine HSC](#) or [Micronized Creatine](#)

Micronized Creatine

Micronized creatine is a creatine that is manufactured into an ultra-fine powder. Each particle of micronized creatine is 20 to 25 times smaller than regular creatine creating much more surface area for quicker absorption and more efficient utilization.

Creatine HSC

Creatine HSC is a special creatine formula we designed to maximize creatine absorption by utilizing the nutrient carrier insulin and creatine transporters. The more creatine you can get into the muscle cell the greater the effect on muscle size and strength it will have.

Creatine HSC is highly recommended for muscle growth and strength.

Meal Replacement Supplements

This is a very big category in sports nutrition and one that should certainly be used if gaining maximum muscle without adding fat is your goal. Meal replacements basically provide a "perfect-meal" without all the bad things like fat, cholesterol, and sugar that come with eating whole food.

[Ny-Tro PRO-40](#) is our meal replacement supplement and each serving is designed to provide 100% of all the vitamins and minerals your body and muscles need for optimum performance, repair and growth.

In reality, Ny-Tro PRO-40 really is not a meal replacement because you could not structure a whole food meal that would contain all the nutrients in just one packet. Ny-Tro PRO-40 is fortified with Glutamine, BCAAs - Leucine, Isoleucine, and Valine. It contains a special blend of different proteins to regulate the rate of nitrogen delivery to your muscles. It also contains 23 grams of slow release complex carbohydrates for optimum insulin release for enhanced nutrient uptake.

Ny-Tro Pro-40 can do more for muscle growth than any one single supplement available. It also allow you to be very precise with your nutritional intake. Each packet with 16 ounces of skim milk provides about 60 grams of protein, 1 gram of fat, and 40 grams of carbohydrates. This really is a perfect meal for maximizing muscle growth.

ALA - Alpha Lipoic Acid

Alpha Lipoic Acid is a unique amino acid that we introduced 3 years ago that works as an insulin mimicker. It actually mimics the action of insulin to help shuttle nutrients into the muscle cell.

A couple of years ago I wrote an article on using ALA with creatine to help increase the absorption of creatine. Shortly after I released the article a company came out with a creatine supplement with added ALA and promoted all the benefits of the two together. We know where they do their research.

The only problem here (and is a perfect example of how most supplement companies get their information) is that ALA is a very unstable chemical. Putting it in a powder will cause rapid breakdown in a very short period of time. You can certainly use ALA to help creatine absorption, but not mixed in with the creatine. You must take it in capsule form.

I highly recommend ALA. Take 200 milligrams with each meal for enhanced nutrient uptake. I also recommend taking ALA each time you take creatine for enhanced creatine absorption. Remember, never take ALA if it's pre-mixed into a powdered supplement. Only take ALA in capsule form.

Multi-Vitamins and Multi-Minerals

Every athlete needs a good multi-vitamin and multi-mineral supplement. This ensures you a complete spectrum of all the vitamins and minerals your body needs to carry out the millions of intricate functions your body goes through every second of the day.

Most athletes are so busy looking for that magic supplement that they tend to forget the basic needs of the human body for every single function it goes through. You need a continual supply of vitamins and minerals to assist all the activities that govern every growth process in the human body.

We developed [Multi-Pro 32X](#) for the demanding needs of the athlete. One look at the ingredient panel will tell you just how potent Multi-Pro 32X is. I highly recommend taking 1 tablet two or three times daily.

The importance of vitamins and minerals can't be overstated. Every function in the body is directly or indirectly controlled and assisted by the essential vitamins and minerals. This is a primary reason why each serving of Ny-Tro PRO-40 contains 100% of all essential vitamins and minerals.

Andro Supplements

Andro supplements consist of Androstenedione, 4-Androstenediol, 5-Androstenediol, 19-Norandrostenedione, and 19-Norandrostenediol.

The andros have generated an extreme amount of press over the past 2 years. This is a very popular category of supplements because of their ability to increase testosterone levels. Increased testosterone levels will help build muscle and strength and reduce body fat.

There is a ton of information about all the andro supplements on our web site and an especially helpful [Andro Q&A](#).

A recent study in the *Journal of American Medical Association* showed Androstenedione significantly increased testosterone levels. There has been a lot of controversy about this, but it's clear the science is there and the anecdotal proof is overwhelming.

I have to highly recommend the andro supplements as an effective way to increase testosterone levels for increased muscle growth and strength. I do not recommend andro supplements for anyone under the age of 18. If you are a female then I would only suggest the [19-Nor 250](#).

Cyclodextrin Andro Supplements

This is form of andro supplement reacted into a cyclodextrine molecule for sublingual absorption. The concept is good, but it doesn't work in the real world. The doses are way too small and you end up swallowing most of it as you would a regular oral andro supplement. So much for the sublingual absorption.

Here is a good Q&A on cyclodextrin and transdermal andro supplements. [Q&A](#)

[Dymetadrine Xtreme](#)

This is a must use energy - intensity - thermogenic supplement. If you are looking to increase your energy while you train there is nothing that will do this better. In fact, the first day you use Dymetadrine Xtreme you'll notice a substantial strength increase.

Dymetadrine Xtreme allows you to really hone your mental focus and concentration while you are training to help generate maximum mental and physical intensity. The difference in training with Dymetadrine Xtreme verses not using it is night and day. Dymetadrine Xtreme is a definite advantage and really makes Max-OT training super effective.

Dymetadrine Xtreme is also the most effective fat burning supplement available. It thermogenically burns stored body fat and is a must if you're looking to lose fat and get more defined while at the same time building muscle.

I recommend 1 or 2 capsule of Dymetadrine Xtreme about 1 hour before training to increase intensity and strength. For increased fat burning I recommend 1 capsule 30 minutes before meals 3 times daily.

[3-Andro Xtreme](#)

This is a really awesome supplement that combines 100 mg 4-Androstenediol, 100 mg 5-Androstenediol, 100 mg 19-Norandrostenedione, 200 mg Caffeine, 400 mg Ephedra Extract 8%, 100 mg L-Phenylalanine, and 100 mg L-Tyrosine.

3-Andro Xtreme is like taking Dymetadrine Xtreme with a potent dose of three testosterone enhancing andro compounds. It's an awesome supplement for increasing testosterone, nortestosterone, and intensity levels.

[DHEA - dehydroepiandrosterone](#)

With all the media attention there has been on andro supplements, it seems DHEA rarely gets a mention anymore. That's too bad because DHEA has some very unique effects and is a supplement I highly recommend.

DHEA has been shown in numerous studies to increase testosterone, increase IGF-1 levels, reduce body fat, increase feeling of well being, lower cortisol levels, and even alter food cravings toward more lean healthy food.

Though not in the spotlight, DHEA is a supplement that can't be overlooked.

I recommend 100 mg. three times daily for men and 50 mg. twice daily for women.

NAC - N-Acetyl Cysteine

This is like a secret supplement that will soon emerge as one of the most effective lean mass stimulating supplements available. NAC is a precursor to glutathione - your body's most potent antioxidant. Not only that, NAC appears to modulate glutamine reserves in the body.

A very recent study showed just 400 milligrams of NAC had potent lean mass stimulating and fat metabolizing activity. The impetus for the study was the hypothesis that weight lifting in itself has catabolic effects. The study revealed that those that trained with weights and took a placebo actually lost muscle mass and gained body fat. **Those that followed the same training program but supplemented with NAC just 3 days a week lost body fat and gained muscle mass.**

This study was so intriguing that we immediately reformulated Ny-Tro PRO-40 to include 400 milligrams of NAC per serving. This will no doubt really enhance Ny-Tro PRO-40's already potent protein synthesizing effects.

This new study has sparked some serious interest in NAC and science behind cysteine levels in the body. There is evidence to suggest that doses of 1000 mg. could have an even more potent lean mass stimulating effect and it appears that the harder you train, not only the more you need NAC, but the more you'll benefit from it as well.

I recommend 500 mg. to 1000 mg. 30 minutes after training.

ProFLEX 750

Here is a supplement that is quickly finding its way into just about every gym bag. ProFLEX 750 is an engineered nutritional matrix designed for supporting the development of strong joints and connective tissue. It contains a unique composition of the research proven joint supporting nutrients glucosamine sulfate and chondroitin sulfate plus a key antioxidant alkaloid - proanthocyanidin - that reduces free radical formation associated with soft tissue inflammation and inhibits critical inflammation provoked enzymatic destruction of collagen-based soft tissue.

Systematic use of ProFLEX 750 will help support strong soft tissue and joint connections by encouraging cartilage repair. It is "chondroprotective" meaning that it actually works to nutritionally protect cartilage.

ProFLEX 750 protects, supports, and nourishes joints and soft and connective tissue through three separate pathways.

- Glucosamine sulfates are special sugar molecules that are the essential building blocks for structural compounds in connective tissue. Glucosamine sulfate protects against tissue damage at the cell level and improves the repair ability of cartilage.
- Chondroitin sulfates are unique polymers that help draw fluid into proteoglycan molecules of cartilage that helps to activate the cushioning effect and assist in nutrient transport into joint tissue. By enabling joint cartilage to retain water, chondroitin sulfate improves lubrication and stimulates the production of the building blocks of joint cartilage.

Chondroitin sulfate also modulates joint tissue anabolism by inhibiting catabolic enzymes and promoting vital nutrient uptake.

- Proanthocyanidins work to prevent the breakdown of collagen through enzyme inhibition and potent antioxidant activity within the joint.

There is strong evidence that these three compounds may work together in synergistic fashion to produce a protective and regenerative effect in critical joint tissue areas.

Dolgit Gel

This is a new and exciting weapon against pain and inflammation that utilizes the very effective anti-inflammatory - ibuprofen - but delivers it directly to the affected area through a special transdermal medium.

Dolgit Gel is a topically applied cream you rub onto the injured area. Since Dolgit Gel is topically applied, very little enters the bloodstream thus significantly reducing any ibuprofen side effects and in turn speeds pain and inflammation reduction at the point of injury.

Following this outline of nutritional intervention for injury prevention and treatment will help provide an injury free body for continued high intensity training.

As the saying goes, "a chain is only as strong as its weakest link". Intelligently providing nutritional support for optimum joint health and strength will allow you to train harder, heavier, and more consistently to provide the overload necessary for continual muscular gains.

Glutamine

Glutamine is the most abundant single amino acid in the blood and in the intracellular free amino acid pool (most abundant amino acid in muscle tissue). It comprises 61% of the amino acid pool in skeletal muscle. Glutamine's unique structure, containing two nitrogen side chains, consists of 19% nitrogen - making it the primary transporter of nitrogen into the muscle cell. In fact, glutamine alone is responsible for 35% of the nitrogen that gets into the muscle cell. Glutamine literally drives muscle building nitrogen into the muscle cell where it is synthesized for growth.

Enough can't be said about the importance of glutamine and muscle metabolism. Research is showing an important link between stress and your body's need for glutamine. The greater the stress (weight training) the more your body needs glutamine. If you don't receive enough glutamine from your diet your body will steal it from the largest glutamine reservoir in your body - skeletal muscle tissue.

So if you don't satisfy your body's glutamine demand either through the food you eat or from supplementation, it will ravage it from muscle tissue causing a loss of lean muscle mass.

One other unique quality glutamine exerts is its ability to dramatically increase circulating growth hormone levels. A dose of just 2 grams has been shown to increase GH levels by 400%.

I highly recommend supplementing with L-Glutamine 5 to 10 grams immediately after training, 2 grams before bed and 2 grams upon rising.

GABA

GABA is a unique supplement that caught my eye quite a few years ago while doing some research on Growth Hormone. This was definitely an accidental find, but what a find it was.

GABA is classified as a neurotransmitter (A neurotransmitter is a substance that transmits nerve impulses across a synapse. A synapse is a region where nerve impulses are transmitted across axon terminals.)

GABA's high concentration in the hypothalamus suggests this amino acid plays a significant role in hypothalamic-pituitary function. The hypothalamus is a region of the posterior section of the brain and is the regulating center for visceral (instinctive) functions such as sleep cycles, body temperature, and the activity of the pituitary gland.

The pituitary gland is the master endocrine gland effecting all hormonal functions of the body. One primary hormone of concern to the athlete is growth hormone (GH) and its various hormonal constituents.

Studies show GABA has a prominent effect on growth hormone secretion. A 5 gram dose of GABA has been shown to increase Growth Hormone levels by 550%. A 5 1/2 fold increase in GH is significant and can play noticeable role in lean tissue synthesis.

GABA also has a distinct calming effect and can help one sleep more soundly.

I recommend taking GABA at night only. 5 grams mixed in a small amount of orange juice before bed.

Max-OT Supplement Plan

I have laid out quite a bit of information on the ever confusing world of supplements here. My goal is not to make this an end all on supplements. That's coming next. What I'm doing here is giving you the straight scoop on what supplements work best and why. But where do you go from here? You certainly don't need to take each and every supplement listed. Some you need to take all the time. Some you can experiment with at different times. This brings us to the question of how to design a supplement program that you are going to get the most out of.

If you remember, last week I talked extensively about calories, protein, carbohydrates, and fat. I detailed a very complete diet and supplement program utilizing many of the supplements discussed here. I **want to make it very clear that if you want to build muscle you must first meet the macro-nutrient requirements and energy needs of your body before you begin looking into adding more "effect" specific supplements.**

I have detailed the diet from last week's lesson and I have added a specific pro-hormone program to it, as well as, Multi-Pro 32X, GABA, and NAC. The additions are detailed in red so they will stand out.

Meal 1 - 6:00AM

1 packet of [Ny-Tro PRO-40](#) mixed with 16 ounces of skim milk and 1 serving of Micronized Creatine

- 2 [AndroPlex 700](#)
- 2 Grams of [GL3 L-Glutamine](#)
- 1 [Multi-Pro 32X](#)

Meal 2 - 9:00AM

- 2 servings [VyoPro Whey Protein](#) mixed in 10 ounces of skim milk
- 1 large apple

Meal 3 12:00PM

- 2 grilled chicken breasts
- 1 Serving Rice
- 1 cup of low-fat Yogurt
- 1 serving VyoPro Whey Protein in 8 ounces skim milk.

Meal 4 - 3:00PM

- 1 packet Ny-Tro PRO-40 mixed with 16 ounces of skim milk and 5 to 10 grams of [GL3 L-Glutamine](#)
- 1 large banana

Pre-Workout

- 2 [Dymetadrine Xtreme](#)
- 1 [VYO-PRO High-Protein Bar](#)
- 1 [19-Nor 3-Andro](#)
- 2 [AndroPlex 700](#)

Meal 5 - 6:00PM (Post-workout)

- 2 servings [VP2 Whey Isolate](#) combined with 1 serving Creatine HSC mixed in fruit juice. (A Snapple drink works perfect and comes in many flavors for variety. This is an important meal and is designed for an insulin spike at just the right time to increase creatine and amino acid uptake by the muscle cells.)
- 2 [NAC 500](#)

Meal 6 - 7:00PM

- 8 to 10 ounces of lean round or flank steak
- 1 large serving of rice
- 1 medium baked potato
- 1 large green salad

Meal 7 - 10:00PM

- 1 packet of Ny-Tro PRO-40 mixed with 9 ounces of skim milk.
- 1 large banana
- 3 to 5 grams of GL3 L-Glutamine
- (Mix the Ny-Tro PRO-40 and GL3 in a large bowl into a smooth pudding. Slice the banana on top and eat. It's a dessert.)
- 1 [19-Nor 3-Andro](#)
- 1 [Multi-Pro 32X](#)

Bedtime

5 Grams [GABA](#) mixed with 6 ounces of orange juice.

Supplementation Consistency

One of the most important things you need to understand about extracting the maximum results from a supplement program is **consistency**. You must follow the program in a consistent manner to realize the full benefits. You can't miss meals one day or skip a protein shake the next. You can't take GABA one night for its GH elevating effects and then forget the next two nights. You can't take AndroPlex 700 in the morning and then forget to take it pre-workout.

This type of haphazard approach to supplementing is sure to produce only marginal results. The real results come from strict adherence to your diet, to your training, and to your supplement regimen. The number one reason people fail to get results from a program is the lack of consistent adherence to the complete program.

I'll tell you right now that no one single supplement is going to do it for you. No matter how much or many supplements you take, if you're not feeding your body properly then you're not going to see the results you could. And no matter how strictly you adhere to your diet and supplement program, if you're not training with the overload and intensity needed to spark growth then it's not going to happen.

Forget about the ridiculous ads these supplement companies are running. Those laughable "before and after" pictures are not a result of the supplements these companies are trying to sell. What you need is a structured plan. A complete program consisting of a proper diet, the right supplements, and Max-OT training.

You put this combination together and you're going to see some serious results. Believe me you'll be turning some heads and your friends will be begging you for your secrets.

Now let's get to this week's new Max-OT training program.

Max-OT - Train Less - Gain More - Intensity

You have been following Max-OT for 4 solid weeks now. You should be getting the feel of this training method and you should already be reaping some rewards in new strength and new muscle growth. And judging from your letters you're making some serious progress. Congratulations.

Over these past four weeks I have heavily emphasized intensity and overload. This is the heart of Max-OT. One thing I want to make very clear is that the level of intensity will directly reflect the amount of volume required for maximum growth. The more intensity you can generate during your training the less sets you'll need to do for maximum fiber overload and stimulation..

The next Max-OT routine coming up will have fewer sets than the previous ones. You'll be training less and getting more out of it. However, it's time to up your intensity level. You need to learn to concentrate and focus even more intensely than you have previously. This is important. You want to achieve that "mind-muscle" link. You'll know when you do this. You'll start lifting heavier weights and really begin to "zone-in" during your workouts.

Remember, overload. Always strive to lift heavier and heavier. When in doubt, go heavier. And one other thing, when you think that maybe you should do one extra set, don't. As far as sets are concerned, when in doubt, do less.

Monday - Max-OT Back and Biceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Cable Pull Downs	2	4 to 6
Close Grip Pull Downs (using a V-Bar)	2	4 to 6
Bent Over Rows	2	4 to 6
Alternate Dumbbell Curls2	2	4 to 6
Straight Bar Curls	2	4 to 6

Cable Pull Downs are performed on a lat pull down cable machine. This is a popular back exercise and basically simulates pull-ups, but you can adjust the weight. Do these in front not behind the neck. Keep your elbows back and pull the bar to about mid chest. Use a grip about 6 inches wider than shoulder width. At the top of the movement stretch your lats and flex them at the same time

* A big mistake most people make doing pull-ups or pull downs is that they use too wide of a grip. Just because the bar is bent on the ends does not mean you should grab it there. Too wide of a grip increases stress on the fragile AC joint and also limits range of motion of the lat muscles. The wider the grip the less overload the lat muscles will get.

Close Grip Pull Downs are performed on a Lat Pull Down Machine. Use a V bar and pull the bar to just below your sternum. Lean back on the way down about 45 degrees. Stretch and flex at the top.

Bent Over Rows are best performed on a bench to allow for a full stretch of the upper back muscles. This is an excellent back movement to add thickness and width. Keep your back straight and pull the weight to the bottom of your rib cage with your elbows in toward your sides. Lower the weight under control and stretch at the bottom.

Alternate Dumbbell Curls should be done standing. Curl the weight up one at a time. Supinate (rotate from palm facing your side to palm facing up) your wrist on the way up. On the way down keep your palm facing up the entire way. One thing about curls that's important is that at the top of the movement you do not cross the

perpendicular plane to the floor. Always keep constant tension on the bicep the entire movement.

Straight Bar Curls are still the king of all the bicep exercises. Your form should be slightly loose. A good bit of weight can be used with this exercise. I find most people don't use near as much as they could or should. It's okay to be a little loose with your form as it will allow you to go a good bit heavier. Don't be stupid and swing the weight like a mad man. Use a very controlled form of cheating. Lower the weight twice as slowly as you raise it.

Tuesday - Max-OT Legs and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	3	4 to 6
45 Degree Leg Press	1	4 to 6
Stiff Leg Dead Lift	2	6
Leg Curls	1	6
Standing Calf Raise	2	6 to 8
45 Degree Calf Raises	1	6 to 8

Squats are not substitutable. For building massive leg size and strength there is nothing better than squats. Anything else you do in place of squats will not be as effective. I will be detailing a Max-OT leg routine a little later in the course that does not involve squats because I realize some people are limited by certain injuries. But make no mistake about it, anything other than squats is second fiddle.

* One thing to note, even squats done outside the Max-OT parameters (4 to 6 rep range to positive failure) are more effective for muscle growth than leg presses or any other leg movement done within Max-OT rules. Squats have such a dramatic effect on muscle fiber stimulation that I would recommend them even if you have to decrease the overload or weight used for whatever reason. This is the only exercise exception to the 4 to 6 rep rule where this applies. Squats are that important for building muscle.

45 Degree Leg Press is a good exercise for your quads. Make sure you lower the weight slowly and drive it up with force and velocity. You can vary your placement, but normal placement is the best for overall results.

Stiff Leg Dead Lifts are the king of all hamstring movements. You know the next day when you have done these. Keep your legs as straight as possible. You don't want to lock your knees, but come as close as you can without actually locking them. (locking your knees can set you up for injuries so be attentive here.) Lower the weight slowly with your

back straight and not rounded. As you come up with the weight do not straighten your back all the way out. Stopping before you are fully erect keeps tension on your hamstrings and increases the intensity level.

Leg Curls are a direct hamstring isolator. (I'm not crazy about many muscle isolation exercises. Isolation limits overload.) Lower the weight slowly and contract forcefully. Use heavy weight. Most people can use much more weight than they do here. Avoid single leg - leg curls. It makes the exercise take twice as long. It's not efficient and it also limits overload.

Standing Calf Raise is done on a standing calf raise machine - duh! This is the best over all calf exercise. Make sure you go heavy and stretch fully at the bottom and contract fully at the top on each rep. Keep your pelvis in line with your shoulders and don't bend at the hip during the movement.

45 Degree Calf Raises are done on a 45 degree leg press (sled). This is an awesome calf movement as well. Stretch at the bottom and flex at the top.

* You can vary the angle of your feet to stress certain areas of your calves more. Toes pointed out work the inner calf. Toes pointed in work the outer head of the calf. Toes straight basically work the entire muscle evenly.

Wednesday - Max-OT Chest and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Flat Barbell Bench Press	3	4 to 6
Incline Dumbbell Press	2	4 to 6
Weighted Dips	1	4 to 6
Weighted Cable Crunches	2	10 to 12
Incline Crunches (weighted)	2	8 to 10

Flat Barbell Bench Press is very straight forward. Lower the weight to the base of your sternum. Do not lower it to the middle of your chest. Power the weight up and slightly back. Drive the weight up with authority and force. Lower the weight twice as slowly as you drive it up.

Incline Dumbbell Press is a great upper chest exercise. Lower the weight twice as slowly as you drive it up. Rotate your palms inward on the way down and outward on the

way up. Make sure you take advantage of the extra stretch that is available when using dumbbells.

Weighted Dips is an excellent upper body movement. When you do these you want to direct the overload to the chest and as much away from the triceps as possible. This is done dipping in an arch motion - almost like a 1/4 circle. Dip slowly and power up with force.

Weighted Cable Crunches are the best ab development exercise you can do. Concentrate on isolating your abs throughout the entire movement. With abs, isolation is good.

Incline Crunches are done on an incline bench with a plate in front of your chest. Be sure to contract forcefully at the "crunch" of each rep.

Thursday - Max-OT Shoulders and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Military Press (In front)	2	4 to 6
Dumbbell Press (Palms facing in at bottom of the movement and rotated forward at the top.)	2	4 to 6
Dumbbell Side Laterals	2	6 to 8
Dead Lifts (these are powerlifting style dead lifts)	2	4 to 6
Barbell Shrugs	2	4 to 6

Straight Bar Military Press is the king of the shoulder movements. Never do them behind the neck. People assume behind the neck shoulder presses are for rear delts when in reality it places all the stress on the front delts. Performed in front brings more of the total shoulder into play. These can be done seated or standing. Lower the weight twice as slowly as you raise it.

Dumbbell Press is an excellent mass builder for your shoulders. It allows for a full range of motion and rotation of your forearm during the movement. This allows for a slightly fuller range of motion than straight bar presses. Keep your back straight and chest out. Lower the weight twice as slow as you raise the weight.

Dumbbell Side Laterals are the most effective medial deltoid exercise. Go heavy. Keep your elbows level with your wrists during the entire movement and turn your thumbs down at the top of the. Raise forcefully and lower slowly.

Dead Lifts work the entire upper and lower back and hit your traps directly. Use a powerlifting style grip with one palm in and one palm out. Grip the bar about shoulder width. Straps can be used. Keep your back as straight as possible and the bar close to your body through the entire movement. With practice and proper technique a lot of weight can be used here. More weight - more muscle.

Barbell Shrugs are a direct and very effective trap movement. Do not rotate your shoulders when you do shrugs. This does not make the movement more effective and invites serious shoulder injury. Lift straight up and lower the weight straight down. Just like its name - shrug. You can do these from the floor to add a bit of intensity and extra overload or you can do them off a rack. Straps can certainly be used here.

Friday - Max-OT Triceps, Forearms, and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Tricep Cable Press Downs	2	4 to 6
Lying Tricep Press	2	4 to 6
Seated Overhead Tricep Press (Performed with one dumbbell behind the neck)	1	4 to 6
Barbell Wrist Curls	2	8 to 10
Dumbbell Wrist Curls	1	8 to 10
Leg Lifts (with added weight)	2	12 to 15
Weighted Cable Crunches	2	8 to 10

Tricep Cable Press Downs are an excellent tricep exercise. The Max-OT technique here is to lean slightly into the movement. On the upper portion of the movement allow the bar to break parallel all the way to about a 45 degree angle to the floor. This increases the stretch on the triceps and provide greater power throughout the movement. Flex your triceps forcefully at the bottom of the movement.

Lying Tricep Presses are the king of the tricep movements. I recommend doing these with a curl bar to reduce the stress to the wrists. These are best done on a bench with your head hanging off the end of the bench. When you lower the bar lower it behind your head not to your forehead as you see described everywhere. Lowering the weight behind your head gives you a much better stretch on the triceps and creates more power in the ascending portion of the movement. Lower the weight twice as slowly as you raise it.

Seated Overhead Tricep Press is performed with a dumbbell. Hold the dumbbell vertically by grabbing the handle with both hands at one end. Holding the weight over and behind your head, lower it as far as possible while keeping your upper arms perpendicular to the floor. Raise forcefully and contract your triceps at the top. Lower the weight twice as slowly as you raise it.

Barbell Wrist Curls are performed on the end of a bench. Seated on a bench with your legs separated (straddling the bench) your forearms should be lying flat on the bench with your wrists hanging over the end. With a barbell in your hands you do a curling motion with your wrists. Flex your forearms tightly at the top of the movement.

Dumbbell Wrist Curls are performed standing. With your arms down at your side and a dumbbell in each hand, curl your wrists in and flex at the top then curl your wrists all the way out and flex.

Leg Lifts are for your lower abs. When training abs lower abs should always be worked first. When you do Leg Lifts, make sure the small of your back is touching the floor or bench. Never arch. This correct form can be forced by putting your hands under your butt and lifting your head and shoulders slightly during the exercise. Add weight by lying a plate over your feet and ankles.

Weighted Cable Crunches are the best ab development exercise you can do - bar none. Concentrate on isolating your abs throughout the entire movement. Go heavy. You can go quite heavy on this exercise.

Conclusion

Wow, this was a long one. I hope I opened some eyes into some of the inner workings of the supplement industry. It's not a pretty sight. It's not a favorite subject of mine either. There are so many deceitful people and very dishonest companies involved in this business. Some companies are completely built on a foundation of lies and deceit. Their products are promoted through total false advertising. And this is all done to play on the emotions of the aspiring lifter who wants to gain muscle as fast as possible.

It's an emotional trigger that the slick companies know they pull. Advertising is all about emotions and creating desire for something. Many of these companies know this and do what ever it takes to tap into your emotions. You need to be aware of this so you can save yourself a lot of money by not falling for the lies they tell to you.

I gave a brief overview of what are the most effective supplements you can use to help ignite and support muscle growth. This was in no way meant to be a definitive guide. This area is too broad. You can find out tons more by thoroughly looking over our web site and especially the [Q&A](#) sections.

I added some new supplements to last week's Max-OT Diet and Supplementation Program. The thing to remember is that you can get carried away taking every supplement out there. You don't want to do this and you don't need to do this. The most

important thing is to have your diet and major supplementation categories down before you go looking for that magic pill.

Last we covered a new Max-OT training program. The point of this new program is to illustrate to you that the more intensely you train the less you have to do. Generating maximum intensity with maximum overload requires less volume for maximum muscle fiber stimulation.

As you progress with Max-OT and refine your ability to generate maximum intensity, you'll see that you can create greater muscle growth with even less sets than before. The more you refine your Max-OT skills the less you'll have to do to achieve maximum muscular growth.

Intensity and overload is where muscle growth comes from, not volume.

Next week I will cover the exercises most suited for Max-OT training and the exercises that are not. I will also cover proper exercise execution for maximum effectiveness.

Max-OT Exercises and Modified Max-OT Training Routines Part 1

Week 6 already. Where does the time go? It seems like I just started this program last week. Congratulations to all of you who have dared to venture into the world of Max-OT and are now reaping the benefits. It's a great feeling and a sense of certainty when know that every rep you do has a purpose. There is no reason to cross your fingers and train - not with Max-OT available. When you have a grasp of the basic physiological understanding of what causes a muscle to grow, then all you have to do is follow the plan through, feed your muscles, recuperate, and grow.

The fundamentals of Max-OT guarantee muscle growth as quickly as your body, your muscles will allow. Training the Max-OT way will provide you with maximum muscle growth potential.

You can train other ways and make gains in muscle mass, but there is no other training method that will produce muscle and strength gains to the extent of or as fast as Max-OT will. Why is this? Max-OT takes the very elements responsible for inducing a muscle to grow and extracts the maximum efficiency from these elements for accelerated muscle growth.

Max-OT Tip: Any time you want to do an exercise or training routine outside of the Max-OT parameters you need to ask yourself this question: "Is what I am about to do the most efficient way to build muscle?" You don't do a new exercise just to "do" a new exercise. Anytime you do an exercise you must make sure that that exercise is the most effective exercise you can do. Otherwise, why would you do it?

This week I am going to detail the chest and bicep exercises most suitable for Max-OT training and the chest and bicep exercises that are not suitable. I am also going to detail 2 more Max-OT routines that will add flexibility to accommodate schedule and time constraints that many people face.

Not everyone has the time to train 5 days a week and you don't have to. Max-OT parameters are designed to maximize muscle gains, but you can still benefit from Max-OT and the muscle building power it produces even if you cannot follow it letter by letter.

In the following pages I will organize two very effective Max-OT routines that offer the flexibility to those that need it. Remember however, the overload and intensity parameters, the backbone of Max-OT, still apply.

Max-OT Exercises - Which Ones and Why

There are literally thousands of different exercises that you can do in the gym. Thousands! But in reality, only a select few are responsible for the majority of the muscle gains you achieve. Knowing this, doesn't it only makes sense to dedicate your time and effort to the exercises that produce the greatest results and avoid the ones that don't? By learning the exercises that are the most productive you'll now have no excuse for doing the ones that are not.

Max-OT Efficiency

The definition of Max-OT Efficiency is - **the ratio of muscular overload achieved to the time and energy applied to achieve this overload.**

Efficiency is the name of the game. **The idea of Max-OT is to achieve maximum overload in minimal time.** Which is more efficient, achieving maximum muscle fiber stimulation and overload in 10 minutes or achieving this in 20 minutes? 10 minutes of course.

There are certain exercises that induce muscle overload much more efficiently than others. And since you've made it this far in the course I'm sure you can pretty much guess which ones they are. You see, the Max-OT routines are not just a collection of my favorite exercises. They are structured programs designed to maximize muscle overload and muscle fiber stimulation as effectively as possible in the least amount of time.

There are many exercises that are done religiously throughout gyms around the world that are basically a complete waste of time. At most they provide minimal efficient overload and certainly don't come close to approaching Max-OT Efficiency. In fact, the list of "don't do" exercises is much longer than the Max-OT approved list of exercises.

Why take the long road when you can take the short road? Max-OT is a heavy and intense training method, but this is what builds maximum muscle size and strength. Light weight doesn't do it. Moderate weight does not do it. Overload is the only method that will force a muscle to grow. The degree of this overload ultimately determines the degree of muscle growth.

Though light and moderate weights are overload stimuli they are not "sufficient" overload to signal significant growth responses. Max-OT uses maximum overload, low rep, short duration training parameters that provide maximum muscle fiber stimulation. And it provides this "maximum" stimulation in much less time.

By doing the "right" exercises and avoiding the "wrong" ones you can build more muscle mass and strength in less time.

As it has become apparent, Max-OT relies heavily on compound exercises. A compound exercise is a movement that involves more than one major muscle group. A compound exercise involves a "primary" muscle and one or more "secondary" muscles. Max-OT incorporates compound movements for the primary muscle involved. The overload benefits to the secondary muscles are a part of Max-OT, but only from a volume standpoint.

Here is a listing of Compound Exercises:

- Bench Press
- Incline Bench Press
- Shoulder Press
- Pull-ups
- Pull Downs
- Barbell Rows
- Cable Rows
- Squats
- Deadlifts

With compound exercises much more weight can be lifted. More weight - more overload. In fact, compound exercises allow far much greater weight to be used than non-compound or isolation exercises. This enhances efficiency. More weight, more overload, more muscle.

It's important to take advantage of the increased power available with compound exercises. A major mistake I see many people make is trying to make an exercise more difficult. They do everything they can to work against the mechanics of their own body. They are under the false impression that the more difficult you make an exercise the more effective it is. Wrong!

Here are some examples of what people do to make an exercise more difficult:

- Bench pressing with their feet in the air.
- Doing curls with their back against a wall.
- Ultra slow reps.
- Super strict form.

The idea is not to make lifting the weight more difficult, the goal is to make lifting the weight more effective and more efficient at muscle fiber stimulation.

Do you ever wonder why even the most advanced weight equipment doesn't produce the same effects as free weights?

Since the inception of Nautilus equipment back in the seventies most weight equipment manufacturers have been going in the wrong direction with the machine development. They have continued to design and develop weight equipment that is more focused on muscle isolation. This is the wrong approach. This is why, even with the most advanced weight equipment, free weights are still the most effective weight lifting equipment for building muscle.

The equipment designers have yet to figure this out. Building muscle is a blend of common sense thinking and rigid science. You must understand the physiological science that is involved in building muscle and how to apply this science in the real world. This is where the equipment manufacturers fall short.

Just as the equipment manufacturers have come up short, so do all the "training gurus" and exercise physiologists. Like the high-tech result-less machines, this is a good example of why performing exercises in an ultra strict manner is less effective than using your body's natural mechanics. Using ultra-strict form simulates a machine. It locks you into a rigid range of motion that limits overload and limits muscle fiber stimulation.

Muscle Isolation

Isolating a muscle during training sounds like a good idea, but if it limits muscle overload it is certainly not the most effective training method.

Muscle isolation exercises sound like they would be more effective, but they are not. Isolating a muscle during resistance training limits overload, limits muscle fiber stimulation, and limits growth. I do not know of a single isolation movement that does not limit overload. There are only a few exceptions where muscle isolation can be used with effectiveness and I will detail these later.

Here are popular isolation exercises that you should avoid.

- Dumbbell Flys
- Cable Flys
- Concentration Curls
- Preacher Curls
- Any exercise machine or exercise that is designed to isolate a muscle.

In the next pages you'll find a rundown of the most effective chest and bicep exercises in Max-OT training. I will explain the most effective way to perform the movements, what primary muscle they overload, and the secondary muscles involved.

Chest

Barbell Bench Press

This is the undisputed king of all upper body exercises. The primary muscles involved are the chest muscles - mid, upper, and lower pectorals. Secondary muscles used are the front delts, triceps, upper back, traps, and lower back. Performed correctly, you'll also use your glutes, quads, hamstrings, and calf muscles. (Though these are mainly stabilizing muscle groups).

Make no mistake about it, even with all the other muscles involved the bench press is a chest exercise. And it's the best chest exercise by far. What makes the barbell bench press so effective are the mechanics involved and the large amount of weight that can be used. Maximum overload can be achieved very easily and the other muscles involved assist in meeting this overload.

Execution

Most people think the bench press is a straight forward exercise and it is. There are however, certain things you can do to increase your bench for greater overload and increased muscle growth.

To correctly perform a Max-OT bench press you need to properly position yourself on the bench. You have 4 connect points from the ground to the bar.

1. Your feet.
2. Your butt.
3. Your shoulders.
4. Your hands.

Your feet should be firmly planted on the floor. Not just placed on the floor, but more like glued to the floor. Your power in the bench starts here.

The next connect point is your butt. Your butt should be firmly planted on the bench.

The next connect point are your shoulders. From your butt to your shoulders your back should be comfortably arched.

The next connect point are your hands on the bar.

When you are ready to start your set your feet should be planted, your butt should be planted, your back should be arched and your shoulders should be planted. Your hands should be gripping the bar tightly. In this setup your body is like a coiled spring.

Remove the weight from the rack and lower it at a moderate speed. Not too fast and not too slow. Do not hesitate with the weight at the top. This wastes energy and speeds fatigue. Descend with the weight immediately. Lower the weight to just above the bottom of your sternum. As the weight touches your sternum allow it to sink into your ribcage 1 to 2 inches. From here explode up and back with the weight.

Max-OT Tip: The explosion from the bottom of the movement is important. The explosive force from the bottom signals high contraction force and is believed to induce muscle cell hyperplasia.

Incline Barbell Bench Press

This is the king of all upper chest exercises. The primary muscles worked here are the upper chest. Secondary muscles are the middle and lower chest, front deltoids, upper back, and triceps.

Execution

The incline does not need to be very steep. 35 degrees is perfect for upper chest work. You follow the same technique for this movement as you do for the flat barbell bench press. Firmly position your feet, butt, and shoulders. Lower the bar at a moderate pace to the very center of your sternum. Let the weight sink into your chest slightly and power up and slightly back explosively. Lower the weight twice as slow as you raise the weight.

Flat Dumbbell Bench Press

Dumbbells are very effective for training chest. You cannot use the same amount of weight due mainly to the limitations of the dumbbells and the effort needed to get into position and handle the dumbbells. However, the increased range of motion makes them a very worthy addition to the Max-OT arsenal of exercises.

The primary muscles involved are the chest muscles - mid, upper, and lower pectorals. Secondary muscles used are the front delts, triceps, upper back, traps, and lower back.

Execution

The most difficult thing about heavy dumbbell exercises is getting them into position. Here is a technique that makes this almost effortless. While sitting on the end of a flat bench with the dumbbells resting vertically off the end of your thighs rock backwards into a lying position on the bench. As you rock backwards into the lying position you bring your knees up with you. This sets you into a perfect position with your arms extended straight above your chest ready to do your first rep.

Lower the weight at a moderate pace while rotating your palms in toward your body. You want to stretch deep at the bottom of the movement. Power the weight upward with explosiveness while rotating your palms back to their original starting position.

Now you also have to be able to put the dumbbells down when you are done. Here's an effortless way to do this as well. When you complete your last rep raise your knees back up so they are close to the dumbbells you are holding. Lower the dumbbells to meet the ends of your thighs. This motion with the dumbbells to your knees will cause you to rock back up into the seated position. It takes a little practice, but once you get it down then handling even the heaviest dumbbells by yourself will be no problem.

Incline Dumbbell Bench Press

This is a very effective exercise for upper chest. The primary muscles worked here are the upper chest. Secondary muscles are the middle and lower chest, front deltoids, upper back, and triceps.

Execution

As with flat dumbbell bench press, the most difficult thing here is getting the dumbbells into position. Unlike the flat bench you cannot rock into position. No problem. As you are sitting on the incline bench with the dumbbells resting on the end of your thighs kick each dumbbell into position one at a time by lifting your knee toward your chest. This places the dumbbells into the bottom position of the exercise ready to start your set.

Lower the weight at a moderate pace while rotating your palms 90 degrees clockwise. You want to stretch deep at the bottom of the movement. Power the weight upward with explosiveness while rotating your palms 90 degrees counter clockwise.

You finish the set with the dumbbells at the bottom position. You then raise your knees up to meet the dumbbells and rock yourself back into the seated position. Piece of cake. Once you master these techniques for handling dumbbells this will be your preferred method. Even if you have a training partner this is how you'll want to do it. It's that easy.

Decline Barbell Bench Press

This is a very effective exercise for your lower chest. The primary muscles worked here are the lower chest. Secondary muscles are the middle chest, front deltoids, upper back, and triceps.

Execution

The decline should be about 30 degrees. Lower the bar at a moderate pace to the very bottom of your sternum. Let the weight sink into your chest slightly and power up and slightly back explosively. Lower the weight twice as slow as your raise the weight. If you are not accustomed to doing decline bench presses it may take a bit of getting used to. You may be quite surprised by how much weight you can lift in this movement.

Dips

Now this is a great exercise for overall chest development with primary overload directed to the lower chest. Secondary muscles used are your triceps, middle and upper chest, front delts, and upper back.

Execution

Most people will need extra weight added to increase the overload. This can be awkward and uncomfortable and will take some getting used to. Following Max-OT for even the shortest time will mean that you'll need to get used to adding weight.

To correctly perform the dip you need to direct the overload to the chest and away from the triceps as much as possible. This is done by dipping in an arch motion - almost like a 1/4 circle. Dip slowly and power up with force. Make sure you stretch deep at the bottom.

Chest Exercises Not To Do

Dumbbell Flyes (incline, decline, flat)

The first thing you need to ask yourself before choosing an exercise is: Will this provide maximum overload?

Flyes are an isolation movement for the chest because they remove the triceps and shoulders out of the movement. However, isolation reduces overload. Less overload means less muscle fiber stimulation.

Another reason people mistakenly do flyes is to shape the muscle. Let me make this perfectly clear, you cannot change the genetic shape of your muscles. You can make them bigger which may appear to change the shape, but you cannot change the genetically predetermined shape of your muscles.

Flyes are basically a worthless exercise in my book. You expend a lot of energy for a little overload. Remember, Max-OT Efficiency. Flyes are not efficient.

Cable Cross Over

This falls into the same category as flyes. Worthless. A lot of effort for a little overload. Cable Cross Overs do not build muscle, they do not shape the muscle. All they do is exhaust the muscle.

Pec Deck

This is the same as flyes only they have made a machine to do them on. A waste of time. Too much effort for too little overload. Leave this one to the Saturday morning fitness crowd.

Biceps

Straight Bar Bicep Curls

Who doesn't want big muscular biceps? Well straight bar curls are the most effective way to achieve this. This is a Max-OT exercise if there ever was one. The primary muscles worked are the biceps. Secondary muscles are the forearms, shoulders, and traps.

Execution

Grip the bar about half a hand wider than shoulder width. Curl upward until you reach the top of the movement. Make sure that you keep constant tension on the biceps at the top of the movement. This is accomplished by never crossing the perpendicular plane at the top of the exercise.

Your form can be relatively loose on this movement. This will allow you to use heavier weight for greater overload and work with your body's mechanical motions to help lift heavier weight and at the same time help to prevent injuries. As with any other exercise you should never get too sloppy. You know when you are cheating yourself out of maximum overload. Controlled cheating increases muscle overload. If you're cheating in a manner that does not enhance overload then you are doing this incorrectly.

Lower the weight twice as slowly as you raise it. I find most people do not go as heavy as they are able to with barbell curls. Step it up and increase the weight. Remember, you should use a weight that will allow at least 4 reps and no more than 6. If you can do more than 6 reps you need to increase the weight.

Max-OT Tip: Here is a guaranteed way to enhance bicep intensity when you train. It's called Max-OT Stretch and Flex. At the bottom of each rep lock your elbows and at the same time flex your biceps for 1 second. Try this and see if it doesn't give you the bicep workout of your life.

Curl Bar Curls

These are the same as straight bar curls, but they put more overload on the outer biceps. Also they reduce the stress to the wrists by putting them in a more favorable angle.

Execution

Other than grip, you follow the same execution parameter as with straight bar curls.

Alternate Dumbbell Curls

This is an excellent bicep exercise that offers an attribute that straight bar curls or curl bar curls can't match. Alternate Dumbbell Curls allow you to supinate your wrist as you curl. The primary muscles worked are the biceps. Secondary muscles are the forearms and shoulders.

Execution

Alternate Dumbbell Curls should be done standing. Curl the weight up one at a time. Supinate (rotate from palm facing your side to palm facing up) your wrist on the way up. On the way down keep your palms facing up the entire way. One thing about curls that's important is that at the top of the movement you do not cross the perpendicular plane to the floor. Always keep constant tension on the bicep through the entire movement.

Max-OT Tip: Max-OT training tries to limit the number of movements involving only 1 arm, 1 leg, etc. These types of exercises are not efficient. You expend almost twice the energy and it takes twice as long when you do these types of exercises. This is why we limit the number of exercises like this.

Straight Bar Cable Curls

Straight Bar Cable Curls are quite an effective movement. Using a cable and a weight stack places constant tension on the biceps. It feels different from regular straight bar curls because of this. Also the stretch and flex technique can be utilized real effectively here. The primary muscles worked are the biceps. Secondary muscles are the forearms and shoulders.

Execution

Grip the bar about half a hand wider than shoulder width. Curl upward until you reach the top of the movement. Make sure that you keep constant tension on the bicep at the top of the movement. This is accomplished by never crossing the perpendicular plane at the top of the exercise. Lower the bar slowly and under control. Stretch and flex at the bottom of the movement.

Bicep Exercises Not To Do

Seated Dumbbell Curls

Seated Dumbbell Curls tend to increase the isolation of the biceps. They will limit the weight you can use and therefore limit the overload.

Concentration Curls

What's the first thing you do when you start concentration curls? I'll tell you, you go for the lighter dumbbells. Red flag number one. Concentration curls are not an effective muscle building exercise. They limit overload.

Preacher Curls

Same thing here as with concentration curls. Isolation limits overload. Limited overload limits growth.

One Arm Cable Curls

Twice the effort for minimal overload. Again, not efficient. One Arm Cable Curls take twice as long, almost twice the energy and effort, and produce less muscle overload.

Max-OT does not incorporate an exercise just to incorporate an exercise. The exercises used in Max-OT are the most efficient and effective movements you can do. Max-OT does not change or alternate an exercise just for the sake of change. Max-OT incorporates the most effective and efficient exercises that produce the greatest amount of muscle overload.

Remember - **Max-OT Efficiency** - the ratio of muscular overload achieved to the time and energy applied to achieve this overload.

This is essential in the effectiveness of Max-OT. This is the basis of Max-OT and why it produces such incredible muscle growth in such short periods of time. Every exercise that Max-OT incorporates stimulates maximum muscle overload. If it doesn't then it's not in the Max-OT arsenal of exercises.

In the preceding pages I showed you which exercises to do and which ones to avoid. Again, the reason Max-OT uses certain exercises and not others is all about Max-OT Efficiency. If an exercise does not produce maximum overload in minimum time it unnecessarily expends energy without maximizing results. This is against Max-OT principles and we eliminate these exercises from our Max-OT exercise list.

Why would anyone do an exercise if they knew it didn't produce maximum results? Now you know which chest and bicep exercises produce maximum overload and you can begin to tailor your training on your own by utilizing what works. You know why they work and that's a big part of the puzzle. Training with knowledge and understanding will generate results much faster than a "roll the dice" approach. Not only is my goal to show you how to train and grow Max-OT style, but also to give you the knowledge and understanding to train with certainty so you'll not only know what to do, you'll know why you are doing it.

In the next few pages I'm going to detail some variations of Max-OT that will involve different time schedules. This will involve training more than 1 major muscle group per day, but it will keep intact the basic Max-OT training principles.

Monday - Max-OT Back, Biceps, and Forearms

The following is a very effective Max-OT routine that trains each muscle group once a week over a three day period with a day off in between each workout.

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Cable Pull Downs	2	4 to 6
Close Grip Pull Downs (using a V-Bar)	2	4 to 6
Bent Over Rows	2	4 to 6
Alternate Dumbbell Curls	2	4 to 6
Straight Bar Curls	2	4 to 6
Barbell Wrist Curls	1	8 to 10
Dumbbell Wrist Curls	1	8 to 10

Cable Pull Downs are performed on a lat pull down cable machine. This is a popular back exercise and basically simulates pull-ups, but you can adjust the weight. Do these in front not behind the neck. Keep your elbows back and pull the bar to about mid chest. Use a grip about 6 inches wider than shoulder width. At the top of the movement stretch your lats and flex them at the same time

Max-OT Tip: A big mistake most people make doing pull-ups or pull downs is that they use too wide of a grip. Just because the bar is bent on the ends does not mean you should grab it there. Too wide of a grip increases stress on the fragile AC joint and also limits range of motion of the lat muscles. The wider the grip the less overload the lat muscles will get.

Close Grip Pull Downs are performed on a Lat Pull Down Machine. Use a V bar and pull the bar to just below your sternum. Lean back on the way down about 45 degrees. Stretch and flex at the top.

Bent Over Rows are best performed on a bench to allow for a full stretch of the upper back muscles. This is an excellent back movement to add thickness and width. Keep your back straight and pull the weight to the bottom of your rib cage with your elbows in toward your sides. Lower the weight under control and stretch at the bottom.

Alternate Dumbbell Curls should be done standing. Curl the weight up one at a time. Supinate (rotate from palm facing your side to palm facing up) your wrist on the way up. On the way down keep your palm facing up the entire way. One thing about curls that's important is that at the top of the movement you do not cross the perpendicular plane to the floor. Always keep constant tension on the bicep through the entire movement.

Straight Bar Curls are still the king of all the bicep exercises. Your form should be slightly loose. A good bit of weight can be used with this exercise. I find most people don't use near as much as they could or should. It's okay to be a little loose with your form as it will allow you to go a good bit heavier. Don't be stupid and swing the weight like a mad man. Use a very controlled form of cheating. Lower the weight twice as slowly as you raise it.

Barbell Wrist Curls are performed on the end of a bench. Seated on a bench with your legs separated (straddling the bench) your forearms should be lying flat on the bench with your wrists hanging over the end. With a barbell in your hands you do a curling motion with your wrists. Flex your forearms tightly at the top of the movement.

Dumbbell Wrist Curls are performed standing. With your arms down at your side and a dumbbell in each hand, curl your wrists in and flex at the top then curl your wrists all the way out and flex.

Wednesday - Max-OT Chest, Shoulder, and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Flat Barbell Bench Press	3	4 to 6
Incline Dumbbell Press	2	4 to 6
Weighted Dips	1	4 to 6
Straight Bar Military Press (In front)	2	4 to 6
Dumbbell Side Laterals	2	6 to 8
Barbell Shrugs	1	4 to 6
Lying Tricep Press	2	4 to 6
Tricep Cable Press Downs	2	4 to 6

Flat Barbell Bench Press is very straight forward. Lower the weight to the base of your sternum. Do not lower it to the middle of your chest. Power the weight up and slightly back. Drive the weight up with authority and force. Lower the weight twice as slowly as you drive it up.

Incline Dumbbell Press is a great upper chest exercise. Lower the weight twice as slowly as you drive it up. Rotate your palms inward on the way down and outward on the way up. Make sure you take advantage of the extra stretch that is available when using dumbbells.

Weighted Dips are an excellent upper body movement. When you do these you want to direct the overload to the chest and as much away from the triceps as possible. This is done dipping in an arch motion - almost like a 1/4 circle. Dip slowly and power up with force.

Straight Bar Military Press is the king of the shoulder movements. Never do them behind the neck. People assume behind the neck shoulder presses are for rear delts when in reality it places all the stress on the front delts. Performed in front brings more of the total shoulder into play. These can be done seated or standing. Lower the weight twice as slowly as you raise it.

Dumbbell Side Laterals are the most effective medial deltoid exercise. Go heavy. Keep your elbows level with your wrists during the entire movement and turn your thumbs down at the top of the. Raise forcefully and lower slowly.

Dumbbell Shrugs are a direct and very effective trap movement. Do not rotate your shoulders when you do shrugs. This does not make the movement more effective and invites serious shoulder injury. Lift straight up and lower the weight straight down. Just like its name - shrug. You can do these from the floor to add a bit of intensity and extra overload or you can do them off a rack. Straps can certainly be used here.

Tricep Cable Press Downs are an excellent tricep exercise. The Max-OT technique here is to lean slightly into the movement. On the upper portion of the movement allow the bar to break parallel all the way to about a 45 degree angle to the floor. This increases the stretch on the triceps and provides greater power throughout the movement. Flex your triceps forcefully at the bottom of the movement.

Lying Tricep Presses are the king of the tricep movements. I recommend doing these with a curl bar to reduce the stress to the wrists. These are best done on a bench with your head hanging off the end of the bench. When you lower the bar lower it behind your head, not to your forehead as you see described everywhere. Lowering the weight behind your head gives you a much better stretch on the triceps and creates more power in the ascending portion of the movement. Lower the weight twice as slowly as you raise it.

Friday - Max-OT Legs, Calves, and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	3	4 to 6
45 Degree Leg Press	2	4 to 6
Stiff Leg Dead Lift	2	6
Standing Calf Raise	2	6 to 8
45 Degree Calf Raises	1	6 to 8
Weighted Cable Crunches	2	10 to 12
Incline Crunches (weighted)	2	8 to 10

Squats are not substitutable. For building massive leg size and strength there is nothing better than squats. Anything else you do in place of squats will not be as effective. I will be detailing a Max-OT leg routine a little later in the course that does not involve squats because I realize some people are limited by certain injuries. But make no mistake about it, anything other than squats is second fiddle.

Max-OT Tip: One thing to note, even squats done outside the Max-OT parameters (4 to 6 rep range to positive failure) are more effective for muscle growth than leg presses or any other leg movement done within Max-OT rules. Squats have such a dramatic effect on muscle fiber stimulation that I would recommend them even if you have to decrease the overload or weight used for whatever reason. This is the only exercise exception to the 4 to 6 rep rule where this applies. Squats are that important for building muscle.

45 Degree Leg Press is a good exercise for your quads. Make sure you lower the weight slowly and drive it up with force and velocity. You can vary your placement, but normal placement is the best for overall results.

Stiff Leg Dead Lifts are the king of all hamstring movements. You know the next day when you have done these. Keep your legs as straight as possible. You don't want to lock your knees, but come as close as you can without actually locking them. (locking your knees can set you up for injuries so be attentive here.) Lower the weight slowly with your back straight and not rounded. As you come up with the weight do not straighten your back all the way out. Stopping before you are fully erect keeps tension on your hamstrings and increases the intensity level.

Standing Calf Raise is done on a standing calf raise machine - duh! This is the best overall calf exercise. Make sure you go heavy and stretch fully at the bottom and

contract fully at the top on each rep. Keep your pelvis in line with your shoulders and don't bend at the hip during the movement.

45 Degree Calf Raises are done on a 45 degree leg press (sled). This is an awesome calf movement as well. Stretch at the bottom and flex at the top.

Max-OT Tip: You can vary the angle of your feet to stress certain areas of your calves more. Toes pointed out work the inner calf. Toes pointed in work the outer head of the calf. Toes straight basically work the entire muscle evenly.

Weighted Cable Crunches are the best ab development exercise you can do. Concentrate on isolating your abs throughout the entire movement. With abs, isolation is good.

Incline Crunches are done on an incline bench with a plate in front of your chest. Be sure to contract forcefully at the "crunch" of each rep.

Max-OT 3 Days On - 1 Day Rotating Routine

This routine follows a little different pattern. It's a routine that changes each week on a rotating basis. You use the same Max-OT training routine as outlined in the Monday - Wednesday - Friday schedule, except you train three days in a row and take an off day. Start the routine over again the day after your off day. You take the weekends off to rest. No matter what days the routine falls on you always take a day off after the Leg, Calves and Abs day. Even if that routine falls on a Monday you still take Tuesday off even after not training on Saturday and Sunday.

It works like this:

Week 1

Monday

Back, Biceps, and Forearms

Tuesday

Chest, Shoulders, and Triceps

Wednesday

Legs, Calves, and Abs

Thursday

Off Day

Friday

Back, Biceps, and Forearms

Saturday and Sunday

Off Days

Week 2

Monday

Chest, Shoulders, and Triceps

Tuesday

Legs, Calves, and Abs

Wednesday

Off Day

Thursday

Back, Biceps, and Forearms

Friday

Chest, Shoulders, and Triceps

Saturday and Sunday

Off Days

Week 3

Monday

Legs, Calves, and Abs

Tuesday

Off Day

Wednesday

Back, Biceps, and Forearms

Thursday

Chest, Shoulders, and Triceps

Friday

Legs, Calves, and Abs

Saturday and Sunday

Off Days

Conclusion

The main purpose in this week's lesson is to show the importance of exercise efficiency on building muscle. The more efficient you make your training the quicker and more effectively you'll gain muscle. I detailed the most effective exercises for chest and biceps. I also showed you which exercises were not efficient and why. In the coming weeks I will detail the most effective exercises for the rest of the muscle groups and tell you which exercises are not efficient.

Review the list of exercises not to do. How many of these have you done? If you're following Max-OT then you're not doing them now and that's good. You're no longer wasting time, you're building muscle.

Understanding Max-OT Efficiency can save you many hours of non-effective training. Utilizing Max-OT Efficiency can dramatically accelerate muscular gains in much less time. It makes no sense to do the exercises that don't have the greatest impact on muscle growth. What is the purpose?

If an exercise does not maximize muscle overload then chances are it falls into the inefficient category. Understanding the very fact that overload builds muscle is key to structuring Max-OT routines that utilize the exercises that produce the greatest overload. Anything less is a compromise in muscle growth.

Next week is "Semester Break". Actually next weekend is the Arnold Classic in Columbus, Ohio. We will be there in full force so the next lesson will be posted on March 4th, 2000. If you are going to the Arnold Classic make sure you stop by and introduce yourself. I want to hear how you have been doing with Max-OT in person. We can share some insights and experiences. I look forward to meeting you.

Skip La Cour, Jeff Willet, and Earl Snyder will be there as well. These are three of the absolute best natural bodybuilders in the world that use Max-OT training exclusively and credit this awesome training program for allowing them to make the gains they have made. Stop by and talk to them and hear it in their own words.

Also, the [Max-OT Q&A](#) will get an extensive update this week so keep the questions coming. And very shortly Max-OT will be updated with extensive photos detailing the Max-OT way to execute each and every exercise.

Max-OT Exercises - Part 2

Welcome back. I hope everyone had an enjoyable week off. Not from training mind you. This was just a break from the Max-OT course. I want to thank everyone I spoke with at the Arnold Classic last weekend. I had no idea so many people taking this course would be there. I must have talked to over 200 students enrolled in Max-OT. One thing is very apparent, people are making gains like they never have before.

The biggest reaction I seem to get from people is somewhat of an awe as to how effective Max-OT is. This awe is usually coupled with a frustration or regret that they have been training for so long and getting little results by not using Max-OT.

Well don't waste energy on frustration. You can't change the past, but you can mold your future. You are now learning the tools, the training methods that will be with you forever. Now there is never a reason to waste a workout from here forward. Your goal from now on is to make every rep a muscle-building rep.

Building muscle isn't complicated. It's not easy, but it's not complicated. There are basic principles involved and your goal is to structure your training parameters to allow you to maximize the effects from these basic principles. **Any time and effort spent doing exercises in a manner that does not maximize these effects is time wasted and its a distraction from your ultimate goal of building muscle and strength.**

Max-OT Tip: One very important thing you must realize is that a botched or missed workout can never be made up. How many times have you took an unscheduled day off and "made it up" your next workout? Who are you kidding? **When you miss a workout that's it. It can never be made up.** You are now a workout less in your quest for meeting your goal of building muscle. The same holds true for a workout that is not performed correctly - non Max-OT. That day, that workout, is gone. Sure you can train that muscle group the next day or week or whatever, but the fact remains that the time can never be replaced. A day of time has moved forward with no muscle fiber overload and no growth.

This is why you need to make every workout the most effective it can possibly be and this is the very foundation of Max-OT. A muscle grows only if stimulated with overload. A muscle responds to a degree related directly to the overload applied. The greater the overload the greater the growth response.

Max-OT Tip: There is no such thing as a light workout with Max-OT. How many times have you gone to the gym for a light workout? Why did you do that? If your goal is to build muscle you completely wasted your time. If a workout is not designed to build muscle why would you even waste your time doing it? And I ask you again - who are you kidding? The reason I ask this is that so many people have a way of justifying why they do certain things when they know good and well they are wrong. Doing this only impedes your progress and no one else's.

Building muscle is a combination of training (overload), intensity, mental focus, recuperation, nutrition, and time. Time is the key element that most never consider in the broad scope of things. In one month you'll train each muscle group 4 times. You'll also have approximately 26 days of total recovery time for each muscle group evenly spaced for maximum recuperation. If you miss a workout you reduce muscle fiber stimulation by 25%. If you "make up" a workout (which 9 out of 10 times never happens) you impede recuperation by 20%, thus reducing muscle growth by a theoretical 20 percent.

Can you see now why training correctly during each and every workout is so important? Time is not on your side, but you can maximize the use of your time so you don't create a "time trap". Time is the critical factor and it's important to realize that any time you train in a manner that does not use maximum overload, that does not induce maximum muscle growth, or you skip a workout, you are in essence taking two steps backwards from reaching your goal. A missed workout can never be made up. A workout short of maximum overload can never be made up.

The purpose of this program is to show you the best and most effective way to weight train to add muscle mass and strength. It's designed to give you the knowledge and create a better understanding of how to train so that you will ignite results every time you're in the gym.

I can share the knowledge with you. I can give you the whys, whens, and hows, but I can't force the discipline. I can't make you train this way. You have to believe in this approach enough to let it work. The great thing about it is results come quick. And when you start seeing dramatic results far greater than what you are used to, it then begins to feed on itself. You begin to derive energy and intensity from the results. This is when things really start to happen. You "zone in". You can literally "feel" muscle growth with each rep.

Back and Triceps

Through the rest of this lesson I am going to detail the proper exercises for training back and triceps. I will show you what exercises work with the most efficiency and how to do these exercises the Max-OT way so you will extract the most muscle growth effects from them.

I will also show you which exercises to avoid and why. There's no reason to do an exercise unless it's the most effective exercise. Why settle for second best? It should not be in your vocabulary and I'm going to make sure that it is not.

Back - UPPER and lower

The back muscles are broadly grouped into latissimus dorsi - lats (upper back) and lower back. Some put the traps in this category as well. When properly developed, the lats are one of the most impressive muscle groups. They give you the very prominent "V" shape.

The upper back also consists of three other somewhat minor muscles that are located over the shoulder blade. These are the teres major and minor, the infraspinatus, and the rhomboideus major. These muscles are significantly stimulated during all lat movements. And lastly you have the serratus anterior muscles that are visible from the front right below the arm pit.

Upper Back

To properly develop your upper back you must strive for both muscle thickness and width. Also, the exercises used must involve maximum contraction and maximum stretch. Certain muscle groups benefit enormously from the stretching aspect of the movements and the upper back is no exception. Not concentrating on both the stretch and contraction portion of the movement will reduce the intensity of the exercise and limit muscle growth.

Max-OT Tip: Stretching a muscle during the overload process brings more muscle fibers into play. Stretching during overload increases intensity and maximizes fiber recruitment.

It's important to understand the value of "overload stretching" and to avoid partial reps. And think of it this way, if you can make the muscle longer through stretching it will bunch up bigger when flexed.

All exercises for direct stimulation of upper back involve "pulling" movements. These are pulling movements from when your arms are straight down at your side to when they are straight over your head and every angle in between.

The upper back is a very strong and large muscle group and benefits (grows) well from overload. Most people underestimate the strength of the upper back in exercises and therefore never really achieve the development they could.

Lower back

The lower back is an area often neglected by weight trainers. It's one of those "non-glamour" muscle groups and because of this is usually only trained as an after thought or just receives stimulation as an assisting muscle group.

Let me tell you right now that it is very important to develop and maintain a strong, muscular lower back. The lower back muscle are one of two critical links between the upper and lower bodies. The other being the abdominal. More injuries result from poor lower back and abdominal development than from any other source. And if you have not yet experienced a lower back injury let me tell you it will stop you dead in your tracks.

A weak lower back will effect and limit almost every exercise you do. This is why it's of the utmost importance to develop a strong lower back. The last thing you want is an injury due to a weak lower back, and you certainly don't want to be limited in the amount of weight you use in other exercises because your lower back is not strong enough to support it.

So you need to attack your lower back with the same intensity and same determination as you do any other muscle group. This is important and vital for overall gains in muscle mass in virtually every muscle group as well as longevity and avoidance of injuries that will do nothing but stall or reverse your progress.

As you have noticed, Max-OT is not just about building muscle size. It's about building a physically strong physique and developing a confident attitude toward your training. It's about staying injury free so you can train each muscle group the way it needs to be trained to promote the maximum growth response.

Triceps

Your triceps are a surprisingly powerful muscle group. They assist or control all arm extension movements. Any exercise that is a pushing movement with the arms involves the triceps.

For most people triceps development comes somewhat easily in comparison to many other muscle groups. Ever notice how it's so much easier to create soreness in your triceps than your biceps? Even so, direct tricep stimulation and overload is critical for maximum muscle growth. Keep in mind however, that in comparison the triceps are a relatively small muscle group. And add to this the fact that they are used in many upper body exercises and it becomes very easy to over-train this muscle group.

Now let's move to the exercises most suited for producing maximum muscle growth and the exercises you don't want to waste your time with.

Upper Back - Lats

Pull-ups

Pull-ups are the king of all lat exercises and fit nicely into the Max-OT training protocol. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, and a little bit of chest.

Pull-ups are a body weight exercise meaning the overload used is the weight of your body. For beginners starting out this is sometimes too heavy. For advanced weight trainers this can be way too light.

Execution

Pull-ups are straight forward, but even so many people miss out on the total effect by not using the correct form for maximum overload.

The bar and your grip are two of the most important areas and also the main aspect people perform incorrectly. **You should use a straight bar and not a bar that is angled at the ends. Your grip on the bar should be about 6 to 8 inches wider than your shoulders.** A perfect way to tell if you are using the correct grip width is as follows: When you are at the top of the movement and your chin is over the bar your forearms should be perpendicular (straight up and down) to the ground. If your forearms are at an angle at the top of the movement then your grip is either too wide or too narrow.

Most people use a grip that is too wide. In fact, most pull-up bars encourage a grip that is too wide by angling and knurling the ends to designate grip location. **Do not grip a pull-up bar on the angled portion.** This angle can invite serious shoulder joint injury. Even a minor shoulder injury can all but shut down your training completely.

Max-OT Tip: If you are unable to do more than a couple of pull-ups here is a way to complete six reps with a bit of assistance that you can control. Have your training partner stand behind you with his hands cupped together like he is giving you a boost onto a ledge or over a fence. As you are in the pull-up position bend your legs and put the tip of your feet into his cupped hands. When you get to where you can't complete a full rep on your own use your legs to press against your partner's cupped hands to provide only the assistance you need to complete the reps. Your partner should not help. He is only there to provide a base for you to assist yourself. This is one of the few situations where Max-OT will use forced reps. Chances are you will not need this assistance very long.

As you begin the pull-up look at the ceiling. Pull yourself up with force and touch or try to touch the top of your chest to the bar. Descend slowly about half the speed you went on the way up. At the bottom of the movement stretch your lats briefly (1 second) and repeat. On the last rep, stretch your lats for about 3 seconds.

Max-OT Tip: As you get stronger, and you will, you can consider adding weight with a special weight belt designed to hang weights off it. This will allow you to increase the overload and stay within the 6 rep range. Weighted pull-ups can be a little tricky and awkward. Make sure you get familiar with them before you really start piling on the weight.

Pull Downs - In Front

These are also called Lat Pull Downs. This is basically a pull-up performed on a machine that lets you easily adjust the resistance (amount of weight) used. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, and a little bit of chest.

Execution

A pull down machine is standard equipment in virtually every gym. As with all machines some are better than others. Most machines force you into a seated position that locks or holds you down in place. This allows you to use a weight heavier than your body weight and remain in a secure position.

Pull downs are virtually identical to pull-ups, but offer several distinct advantages - the ability to easily adjust the resistance and the ability to more effectively alter the angle at which you pull the weight down. All pull down movements should be done in front and not behind your neck.

To effectively target the lat muscles with maximum overload you need to lean back during this movement at about a 45 or 55 degree angle to the floor. This is a more favorable position to allow for greater overload, more direct lat stimulation, and drastically decrease chance of injury to the shoulder joint (You're working with your body's natural mechanical movements).

As you begin the pull-down look at the ceiling. Pull the bar down with force and touch or try to touch the top of your chest to the bar. Allow the bar to ascend slowly about half the speed you went on the way down. At the top of the movement stretch your lats briefly (1 second) and repeat. On the last rep, stretch your lats for about 3 seconds.

Max-OT Tip: As you noticed Max-OT takes a different approach on form. Max-OT uses your body's natural biomechanical movements to target the muscle with more overload while decreasing chance of injury. Max-OT does not hold you into an unnatural ridge position that most mistake for "good form".

Close Grip - "V" - Bar Pull Downs

This is a great exercise for both lat thickness and width. This is done on a Lat Pull Down Machine. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, and a little bit of chest.

Execution

There is only one way to grip this bar so you can't make a mistake here. As you begin the pull-up look at the ceiling. Pull the V bar down with force. Arch your back and thrust your chest forward as the bar approaches your chest and touch or try to touch the bar to bottom of your sternum. Allow the bar to ascend slowly about half the speed you went on the way down. At the top of the movement stretch your lats briefly (1 second) and repeat. On the last rep, stretch your lats for about 3 seconds.

Low Cable Rows

This is one of the best exercises for both lat thickness and width. It's performed on a low cable row machine. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, lower back, quads, hamstrings, and a little bit of chest.

The Low Cable Row is definitely a power exercise and a perfect one for Max-OT. You can use a variety of different bar attachments for variation and generally handle a lot of weight with good form. Personally I like the straight bar with a shoulder width grip.

Execution

Grip a straight bar with a shoulder width grip. Sit into position with your knees slightly bent. Pull the bar to the bottom of your sternum. As the bar approaches your ribcage arch your back and thrust your chest forward. At the top of the movement do not lean back past parallel more than 10 to 15 degrees. Pause slightly when the bar touches your ribcage. As you lower the bar back to the starting position bend at the waste and stretch your lats fully. Make sure you do not jerk the weight and cause slack in the cable at the top of the movement. This invites injury.

Barbell Rows

If there is one exercise as physically demanding as squats this is it. Barbell rows separate the men from the boys. It's demanding and very effective. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, lower back, quads, hamstrings, and a little bit of chest.

Execution

You can do these on a platform or a regular flat bench used for barbell bench press. Grip a straight barbell with a shoulder width grip. Take the bar off the rack and bend forward with your back parallel to the floor and slightly arched. Do not round your lower back. Pull the bar up with force to the bottom of your ribcage. Make sure you keep your elbow close to your sides and flex your back when the bar touches your chest. Lower the bar twice as slowly as you raise it. At the bottom of the movement stretch your lats fully.

Max-OT Tip: Wrist straps are very helpful when doing back. They allow you to handle much heavier weight without worrying about grip fatigue.

T-Bar Rows

This movement is similar to barbell rows in effect. T-Bar rows are an excellent exercise for back thickness. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, lower back, quads, hamstrings, and a little bit of chest.

Execution

There are many different T-Bar row machines - if you want to call it a machine. Some are real good and some really suck. The movement should be natural. This is key. If the T-Bar row puts you into a position that is awkward it will probably do more harm than good. Remember, Max-OT works with the natural biomechanics of your body and not against them.

Grip the handle (I like a close grip with my palms facing each other) and pull the handle toward the bottom of your ribcage. Keep your head up. At the top of the movement - expand your chest and flex your back. Keep your knees bent and your lower back straight - do not "round" your lower back. Lower the weight twice as slowly as you raise it and stretch at the bottom

One Arm Dumbbell Rows

Typically one arm movements are considered very inefficient. They require almost twice the energy and take twice as long to complete. So from an overload and efficiency standpoint I would certainly choose Barbell Rows over One Arm Dumbbell Rows. However, Dumbbell Rows are such a good exercise I will at times make an exception. Primary muscles involved are the lats. Secondary muscles used are the biceps, forearms, shoulders, lower back, and a little bit of chest.

Execution

Use a flat bench and place one knee on the bench and one hand on the bench so that your back is flat and parallel to the floor. Grip the dumbbell and pull it to the lower part of your ribcage. Make sure you pull the dumbbell to your lower ribcage and keep your elbows in close to your side the entire movement. Flex your lats at the top and stretch them at the bottom.

Max-OT Tip: On all rowing movements pull the weight to your lower ribcage and not to your chest. This directs most all the overload to your lats and away from your shoulders.

These are the most effective movements for building a thick, wide, and strong, upper back. There are many different machines available for training back, but none are better than the exercises I just outlined. We do have two pieces of equipment in our performance lab that stand out. One is a Magnum plate load bi-angular pull down machine that simulates pull-ups very closely. The other is a bi-angular plate loaded row machine that's pretty good.

Remember, overload, intensity, contract and flex, and stretch. You can pack a lot of muscle and size on your upper back, but it takes overload. Max-OT overload.

Lower Back

Deadlifts

The key to strong and muscular lower back and powerful overall physique. The Deadlift is a serious exercise that produces serious results. Deadlifts not only develop a strong lower back, like squats, they build the entire body. Primary muscles involved are the lower back muscles. Secondary muscles used are the biceps, forearms, shoulders, traps, upper back quads, and hamstrings.

Developing the proper technique in the Deadlift will result in some mind-boggling weight that can be used. You must learn this proper technique to build strength quickly and avoid injury.

Execution

The Deadlift is an exercise where you lift the weight from the floor to your mid thighs. With the bar on the ground, stand with your feet about a hand narrower than shoulder width. Grip the bar about shoulder width with one hand in and one hand out. Keep the bar close to your shins and get into a squat position. With your head up and back straight drive with your legs as you lift the bar. About 2/3's the way through the movement you'll be using all lower back. Lock out your back by standing in an upright position.

Do not "round" your lower back. Drive with your legs from the bottom while keeping your lower back straight. this is important to prevent injury. You don't want to use a sloppy technique in the Deadlift.

Good Mornings

Good Mornings are a direct lower back movement. This exercise gets its name from the movement. It's a bowing movement that is used as a greeting in many far eastern countries. The primary muscles used are the lower back (spinal erectors). Secondary muscles are the shoulders, upper back and hamstrings.

This exercise will produce lower back muscles like steel cables.

Execution

Position the barbell just as you would when doing squats - across the rear delts and not the base of your neck. With the bar secure bend forward at the waist. Keep your back straight and your knees slightly bent and descend until your back is parallel to the floor. Return to the upright position and repeat. Perform this exercise under complete control. Don't get sloppy and don't go too fast.

Weighted Hyper-Extensions

Weighted Hyper-Extensions are a very effective lower back exercise. They target the lower back directly. The primary muscles used are the lower back (spinal erectors). Secondary muscles are the upper back and hamstrings.

Execution

Weighted Hyper-Extensions are done on a Hyper-Extension bench. Makes sense huh? The movement is kind of like a reverse sit-up. The Hyper-extension bench is typically designed on a 45 degree angle and secures your ankles or lower leg and positions your pelvis face down on a padded section that stops at the waist. This allows you to bend forward and raise back up to starting position using only your lower back muscles. A weight is held at chest level or behind the neck to increase the overload.

Bend at the waist slowly for about a 70 degree angle then raise up until your upper and lower body are in a straight line. Some people will "hyper-extend" past this point somewhat. That's fine, but don't get carried away here. Flex your lower back muscle hard at the completion of each rep.

Back Exercises Not To Do

Pull Downs or Pull-Ups Behind the Neck

These movements allow for less overload, but significantly stress the shoulder joint. Less overload - more chance for injury. Let the squids do these.

One Arm Cable Rows

Why? I saw this in a Muscle Media back training article once and just had to laugh. There is no purpose for this. Your objective is to create maximum overload in minimum time. This is minimum overload, expends twice the energy, and takes twice as long. Truly a moron movement. Don't do it.

Underhand Pull-Ups

Too much bicep and not enough back in this movement.

Any Silly Machine That Promises Isolation

Training back is a compound endeavor. The back does not move alone and should not be trained alone. Other muscles assist in back development, let them.

Triceps

Tricep Presses

Some people call these "Skull Crushers", but I've never liked that name. This is without a doubt the most effective mass building tricep movement when done correctly - the Max-OT way. Primary muscles involved are the triceps. Secondary muscles are the shoulders, traps, chest, back, and forearms.

Execution

Most people do this exercise wrong. Most trainers, books, and magazines teach this exercise wrong. Let's clear things up and show you how to really pack on some muscle by doing Tricep Extensions the Max-OT way.

Start off by lying on a flat bench. Now the difference here is that you want to hang your head over the end of the bench. I like to lock the heels of my feet on the other end of the bench for stability. Either have your training partner hand you the bar (I highly suggest using a curl bar as it reduces the stress to your wrists) or grab it from the floor and pull it over your head. With the bar extending over your chest lower the bar down and back by bending your elbows. Let the bar go behind your head. From this position you power the weight up with your triceps to the original starting position above your chest with your arms extended.

The key to doing Tricep Extensions the Max-OT way is the stretch involved by going behind your head with the bar. And, most importantly, performing Tricep Extensions this way allows you to handle significantly heavier weights while reducing the stress to your elbows.

Cable Press Downs

Here is another awesome tricep exercise that when done correctly will produce maximum overload and a great stretch on the triceps muscles. Primary muscles involved are the triceps. Secondary muscles are the shoulders, traps, chest, back, and forearms.

Execution

Again, most people do this exercise wrong as well. The key here is to lean into the exercise and allow the bar to break the parallel plane by about 45 degrees at the top of the movement.

Start off by gripping the bar slightly narrower than shoulder width. Press the weight down to your waist and lock your elbows. This is the starting position. Raise the weight while keeping your elbows close to your sides. As you are leaning into the exercise raise the weight up toward your face or forehead. When your forearms have broken the parallel plane by about 45 degrees drive the weight down to the starting position and flex your triceps for about 1 second.

By allowing the weight to travel past parallel you increase the range of motion and increase the stretch. By increasing the range of motion you increase the total muscle fiber recruitment and you reduce the stress on the elbows.

Close Grip Bench Presses

Close Grip Bench Presses are a serious mass builder for the triceps. Primary muscles involved are the triceps. Secondary muscles are the chest, shoulders, and forearms.

Execution

Lying on a regular Bench Press bench take a narrow grip on the bar. Your thumbs should be about 8 inches apart. Lower the bar slowly to the middle of your chest. Keep your elbows out. Drive the weight straight upward and flex your triceps at the top of the movement.

Seated Tricep Extensions

This is a very effective mass builder that maximizes the range of motion in the triceps. Primary muscles involved are the triceps. Secondary muscles are the shoulders, traps, chest, and forearms.

Execution

This exercise can be performed sitting straight up on a flat bench or sitting back on an incline bench. You can change them up for variety. Have your training partner hand you a loaded curl bar. Lower the weight from above your head to behind your head. Go as deep as possible then drive the weight back up to the starting position with explosiveness. Lower the weight twice as slowly as you drive it up.

Cable Press Downs Behind the Back

This is an exercise you don't see many people doing. Let me tell you it's very effective. It allows for plenty of overload and gives a great tricep stretch. Primary muscles involved are the triceps. Secondary muscles are the chest, shoulders, and forearms.

Execution

You will definitely need a training partner with this one. Using a cable press down machine turn and face away from the cable. Have your training partner grab the bar and lower it in a position behind your lower back. Grip the bar behind your back with a grip slightly narrower than shoulder width. Raise the bar up as high as possible toward your upper back. Press the weight down with explosive force. Flex your triceps at the bottom of the movement for about 1 second.

This exercise is a little tricky at first, but you'll catch on quick.

Dumbbell Press Downs Behind the Back

This exercise is similar to curl bar presses behind the neck except you use a dumbbell. Because of your hand position on the dumbbell it works the triceps a little differently while still allowing for maximum overload and maximum stretch.

Execution

Hold the dumbbell vertically by grabbing the handle with both hands at one end. Holding the weight over and behind your head, lower it as far as possible while keeping your upper arms perpendicular to the floor. Raise forcefully and contract your triceps at the top. Lower the weight twice as slowly as you raise it.

Tricep Exercises Not To Do

I'm going to list three tricep exercises that are not necessarily the most effective. I want to point out however, that the tricep muscle is relatively easy to overload. There is hardly a tricep movement that does not generate sufficient overload for maximum muscle growth if done correctly. Of these three, Dumbbell Kick Backs can certainly generate maximum overload. Only the fact that it is a one arm movement does it get a downgrade.

Dumbbell Kickbacks

This a good tricep movement when done correctly. Only drawback is that it is a one arm movement.

Cable Kickbacks

Cable Kickbacks do not allow the use maximum overload and is performed one arm at a time. There is not sufficient overload and the one arm approach is inefficient.

Overhead One Arm Dumbbell Extensions

Overhead One Arm Dumbbell Extensions do not allow the use maximum overload and is performed one arm at a time. There is not sufficient overload and the one arm approach is inefficient.

What it boils down to with these movements is the whole "inefficient energy expenditure" problem and the fact that they do not produce maximum overload. Remember, you don't do an exercise for the sake of doing an exercise. You carefully choose the exercises that will produce the most overload in the least amount of time. That's what Max-OT does.

Conclusion

That wraps up Week 7. I covered the most effective upper back, lower back, and tricep exercises. I told you how to do them the Max-OT way to get the most muscle growth response in the least amount of time. That's what it's all about. The more you can extract from each and every rep the greater your results will be.

Max-OT does a lot of exercises - a little different. Max-OT certainly does not follow the usual cookie cutter mold you see in all the differently worded, but essentially the same training books that are for sale out there. Max-OT is not a rehash of old training ideas. Max-OT is a completely new approach.

It's not so much that Max-OT is a total innovation, rather a rethinking of the concept of building muscle. You see, the problem in strength training and bodybuilding is that the innovative thinking has become stagnated. As this stagnation propagated over the years it has bred an era of "perpetuated stagnation" and general acceptance of the status quo.

Max-OT takes another path, a more logical path based on the fundamental physiology of muscle growth. By understanding the essence of what causes (forces) a muscle to grow, Max-OT structures a defined plan of attack to efficiently ignite muscle growth workout after workout.

In the next couple of weeks I will include photos of the correct way to perform the Max-OT exercises to go along with the descriptions. Also, this was planned for last week, but time constraints did me in - the [Max-OT Q&A](#) will get an extensive update this week so keep the questions coming.

One last thing, I know a lot of you are printing out this program as you go through it each week. And that's a good idea. When it is complete it will be published in PDF format as well as in book form. Both will be offered for sale at a "to be determined" price. It will be close to 250 pages of the best training information in the world.

Max-OT Exercises - Part 3

This week I am going to detail the leg and calf exercises most suitable for Max-OT training and the leg and calf exercises that are not suitable. I am also going to detail the Max-OT routine Jeff Willet is currently using as he prepares for the Team Universe Championships. This will show you in detail how one of the best natural bodybuilders in the world uses Max-OT to pack on muscle and strength.

I would like to start this week off with a little review of the understandings and misunderstandings of building muscle and how it either stalls your progress or propels it forward.

No matter how structured our training programs are, over time we always seem to stray from what works. All in search of more. More size, more strength, more results. Unfortunately, as time goes on and training experience increases most people regress their training effectiveness. They work harder and longer for less returns.

How many times have you trained with someone new and did a different exercise from your normal routine? Afterwards you reflect back and think how awesome that exercise was. You also wonder how long it's been since you last did it and why it's been so long.

In the quest to build muscle most people that train are their own worst enemy. It's very easy to get carried away with your training. And unfortunately it's human nature to train in a manner that's counterproductive to muscle growth.

"More is better". At least that's how it is in just about every aspect of life. The more you study and learn the smarter you become. The more you practice at a particular activity or sport the more skilled you become. The more money you accumulate the richer you become. In weight training however, the more you train the less muscle you will build.

Now these are broad statements that have many contributing factors, but the underlying foundation of these statements is rock solid. When you are trying to build muscle more is not better.

Building muscle and strength is a simple process of overload, recuperation, adaptation - overload, recuperation, adaptation . . .

Max-OT Tip: Building muscle is a simplistic process that far too many make way too complicated. The more complex you believe building muscle is, the more complex you'll make it. And the more complex you make it the less muscle you will build.

You must understand and accept that when building muscle "more" (volume) is not better.

I spent last weekend with Jeff Willet, one of our athletes and one of the world's best natural bodybuilders. Jeff and I discussed many aspects of training and why he has made such gains with Max-O. He has used Max-OT for over 1 1/2 years and as a result went from a good bodybuilder to an extraordinary bodybuilder earning the right to represent the United States in the World Championships. Jeff told me that the biggest misconception people have when they first talk to him is that they think he trains eight hours a day. When he tells them that he never, eeeeever (as Y2J would say) trains more than 45 minutes a day, and that is a long workout, they don't believe him. He also said that half the time training is spent loading and unloading the weight.

Why are so many people so inclined not to accept this? Why do so many people that train increase their workout volume as the years go by in hopes of making more gains? Why are so many willing to accept less and less progress the more years they train yet spend more time in the gym?

My answer is - direction, or should I say, lack of the right direction. Unfortunately, there are very few "thinking" minds in this sport. As I stated before, the primary source of training and nutrition information comes from the magazines.

If the only information you receive is the monthly regurgitation spewed from the magazines then you don't stand a chance. You're going to train wrong and your nutrition and supplementation will be guided by what makes the magazine / supplement companies' owners the most money.

Now don't get me wrong, every now and then you can find a bit of useful information that somehow accidentally made its way into a magazine. But the problem is you have to wade through all the mind polluting bullshit before you ever reach it. By then your mind is so tarnished, stained with self serving propaganda. Your training suffers, your nutrition is way out of whack, and your supplementation program has left you broke with no added muscle to show for it. Sound familiar?

I was just recently asked this question:

Question: Do you recommend using heavy weights and low reps all of the time? If so, do you disagree with Hatfield, Costa, Platz, etc. who recommend periodization training?

(Periodization Training rotates the weight and rep patterns every few weeks.)

Answer: I recommend training heavy and with high intensity anytime and every time you train. Max-OT philosophy is quite simple. Anytime you wrap your hands around a bar there should be one purpose that directs how you execute from that moment forward - **to build muscle.**

With this understood, I have to also answer this question with a question. If overload is what ignites muscle growth then how will periodizing with lighter weights and higher reps build maximum muscle?

Periodization training will not build maximum muscle and strength because it does not incorporate maximum overload. If your muscles don't receive maximum overload they have no reason to adapt and no reason to grow. It's as simple as that.

A muscle needs a reason to grow. If a muscle is not given just cause to adapt to a demanding situation then it will not. Why should it?

Anytime you train with less than maximum overload you actually give your muscles a reason **NOT** to grow. And you create an adaptation environment that's counter productive to muscle growth. If a muscle is called upon for less than full power and full contraction it will tend to adapt to this lesser overload - an adaptation that will actually lead to muscle and strength loss.

Are you beginning to see the importance of maximum overload - Max-OT? Your muscles need a constant challenge. You need to continually seek greater overload and greater intensity for continual muscle growth to occur. Any workout using less than maximum overload is a counterproductive workout. Not only does it stall progress, but it may actually impede muscle growth.

When structuring a training program it must have purpose. You must have an answer for each movement you do. You must be able to answer truthfully, *"Why did I do that set? and Will the way I did it will it contribute to maximum muscle growth?"* And your answer must be, *"Yes this set will contribute to maximum muscle growth because the set was done with maximum overload and maximum intensity."*

Weight training to build muscle is a very individual sport. When you screw up the team doesn't lose, you lose. When miss a workout the team doesn't suffer you suffer. Building muscle is merciless. It will not happen unless you make it happen. Stray from the path and you certainly impede your progress.

Legs

Squats

You've heard me say this time and time again and I'm going to repeat it. If there is one exercise that produces the most dramatic gains in muscle size and strength squats are it. No other exercise even comes close to matching the effectiveness of squats.

The primary muscles involved are the quads, hamstrings, glutes, and lower back. Secondary muscles used - just about every muscle in the body.

I find than many people will make up every excuse possible to avoid doing squats. This is not a habit you should get into. You need to make it a priority to learn to love squats.

Max-OT Tip: It's impossible to maximize your leg development without squats. Don't kid yourself. In fact, it's impossible to maximize overall whole body development without squats. Squats should be the cornerstone, the foundation of any muscle building program.

Execution

Good form on squats is very important for maximum development and to prevent injuries. Also, good form on squats works with your body's natural biomechanics. When your form is right you will be able to lift more generating greater overload and more muscle growth and strength.

Using an adjustable or pegged squat rack set the bar at the proper height. The height of the bar should allow you to take the bar off and put the bar back on the rack with no problem. You should never have to struggle racking the weight. This accounts for many of the injuries experienced while squatting.

Step under the bar and position it below your traps and on your rear delts. This position may be a little awkward at first, but once you get used to it you'll find it to be the most comfortable and secure. Don't rest the bar on the top of your traps. This is not only painful on your traps, but it is not secure and certainly not a good idea when the weight gets heavy.

With the bar positioned correctly take it off the rack. You should take one step back into position with your feet about shoulder width with your toes pointing straight ahead.

Max-OT Tip: You should expend as little energy and time as possible getting into position once the weight is on your back. It should be a one step process. I see so many people, even experienced powerlifters, that take the bar off the rack and walk two or three steps back, then move their feet into the right position and then take a couple of

deep breaths. This is not what you want to do. When you have three, four, five, or six hundred pounds on your back the last thing you want to do is waste a bunch of energy before you even start squatting. And you certainly don't want to be taking several steps to get into position.

Once in position keep your head up and descend slowly. Now here is another very important part about squatting - how low should you go down? You want to squat down until your quads are parallel to the floor. For some it's difficult to tell when their quads are parallel to the floor. A good rule of thumb is, you are not sure if you are going to parallel or not then most likely you are not. Go deeper.

As with most all movements, full range of motion in the squat is very important for maximum muscle fiber recruitment and full muscle development.

When you reach parallel drive the weight up with explosive force. Remember to keep your head up. You might want to find a spot on the wall a foot above your height. Keep looking at this spot the entire movement. This helps keep you balanced and prevents you from going forward. Never look down during the movement as this may cause you to fall forward.

How not to squat

Here is a list of "do nots" while squatting.

Do not bounce off your calves at the bottom of a rep.

Do not lean too far forward.

Do not bow your knees in during the upward portion of the movement.

Do not place a block under your heels while squatting. This is a bad habit to get in to.

Do not go so heavy that you can't squat to parallel.

Do not place a bench behind you to gauge your squatting depth. This is another bad habit you want to avoid.

Max-OT Tip: One thing to note, even squats done outside the Max-OT parameters (4 to 6 rep range to positive failure) are more effective for muscle growth than leg presses or any other leg movement done within Max-OT rules. Squats have such a dramatic effect on muscle fiber stimulation that I would recommend them even if you have to decrease the overload or weight used for whatever reason. This is the only exercise exception to the 4 to 6 rep rule where this applies. Squats are that important for building muscle.

Leg Press

You'll usually find some sort of leg press machine in just about every gym. There are many different types with the most common being a 45 degree leg press.

The primary muscles involved are the quads, hamstrings, and glutes. Secondary muscles used - like squats, just about every muscle in the body is used during leg presses however, not close to the extent that squats stress these muscles.

On a leg press machine, you load the weights on the sled portion (the sled is the part you push with your legs).

Execution

While sitting in the leg press place your feet on the sled platform about shoulder width with your toes pointed forward. Release the stops and lower the weight slowly. To make this movement effective you must go very deep. Lower the weight as far as you can. Drive the weight up with explosive force.

Max-OT Tip: Maximum depth is very important when doing leg presses. Don't load the leg press up with so much weight that you can only do half reps. This is common in gyms across the world. Typically a leg press can be loaded with an impressive amount of weight and half reps can be done by even the weakest pair of legs. For maximum muscle fiber stimulation a full range of motion must be used.

Max-OT is all about maximum overload, but not at the expense of the range of movement.

At the top of the movement do not lock out your knees. Keep your knees slightly bent at the top of the movement. This is important for constant tension on the muscles as well as a safeguard to prevent hyper-extending the knees during heavy overload.

Lunges

Lunges are an awesome movement for hamstrings. You always know the next day after you have done lunges. The primary muscles involved are the hamstrings, glutes, quads, and lower back. Secondary muscles used - just about every muscle in the body.

Execution

Lunges are done one leg at a time in an alternating fashion. Position the bar on your back exactly as if you were doing squats. Take the bar off the rack and step back far enough to allow room in front of you for a giant step forward. Standing with feet as wide as they would be if you were just standing normal. With your left foot take a step forward and slowly go into a lunge position. Keep your back straight during the entire movement. Lunge until your quad is slightly lower than parallel to the floor. Next, drive up and back until you are in the standing position again. Repeat the same movement with your right leg. Alternate between each leg for the desired number of reps - 4 to 6.

Max-OT Tip: It's more effective to lunge onto a platform or block that's about 4 to 6 inches high. This dramatically adds to the intensity by providing a greater stretch and increased range of motion.

Stiff Leg Deadlifts

This is another very effective hamstring exercise. The primary muscles involved are the hamstrings, glutes, and lower back. Secondary muscles used are the arms, shoulders, traps, and upper back.

Execution

Stiff leg deadlifts can be done off of a regular bench press bench or a deadlift platform that will allow for an extended stretch. I recommend using straps for this movement to alleviate any concern for your grip so that you can concentrate fully on hitting the hamstrings with maximum intensity.

Grip the bar about 6 inches wider than shoulder width. Raise the bar into a standing position - as you would be at the top of regular deadlift movement. Bend at the waist and lower the bar to the top of your feet. Keep the bar close to your legs the entire movement. Your knees should be slightly bent and not locked out. This makes sure no unnecessary pressure is knee joint. Raise the bar back to the start of the movement and repeat.

Max-OT Tip: To increase the intensity of this exercise do not fully lock out your back and hips at the top of the movement. Raise the weight to just before you are fully upright and then descend again for the next rep. This keeps constant tension on the hamstrings and maximizes the intensity levels.

Max-OT Tip: With stiff leg deadlifts the stretch is of utmost importance. The wider you grip on the bar the greater the stretch your hamstrings will receive. Experiment with grip width to maximize the stretch while maintaining full control.

Leg Curls and Leg Extensions

Leg curls are a direct hamstring movement with few other muscles involved. The primary muscles involved are the hamstrings, and a bit of lower back.

Leg Extensions are a direct quadriceps exercise with few other muscles involved. The primary muscles involved are the quadriceps and hip flexors.

I don't get overly excited about leg curls or leg extensions simply because they are not very effective muscle building movements. I actually like them better for leg warm up more than anything else.

Leg Curls and Leg Extensions are both isolation movements and because of this isolation factor, only limited overload can be used.

Execution

These are both straight forward movements. You simply sit in the machine and follow the movement of the apparatus. There are of course better machines than others, but most everyone is limited by what is in the particular gym they train at. I certainly wouldn't seek out another gym based solely on their leg curl and leg extension machines. They are not that important.

Max-OT Tip: Leg Curls and Leg Extensions make great warm-up movements prior to the heavy stuff. I would recommend doing them first at medium intensity before squats.

Leg Exercises Not To Do

In the previous sections I have outlined the most effective leg movements for building muscle mass and strength. Now I'm going to list a few movements that are common in many routines that you should avoid mainly for lack of effectiveness.

Hack Squats

I've never seen significant benefit in Hack Squats. They are designed to isolate the quads, but in doing so limit overload and severely stress the knees. Limited overload and increased joint stress is not a formula that fits into Max-OT.

Sissy Squats

Sissy Squats are just that, sissy squats. This is where you hold weight next to your chest and lean back and squat at the same time while your heels are elevated. It's basically a free weight hack squat.

Adduction and Abduction Machine

These are the machines that you sit in and spread your legs with resistance on the spreading portion and resistance on the closing portion of the movement. Why? These machines were designed to pacify many women that feel they need to target specific areas in their training as a way of losing fat or spot reducing. It's flawed in conception and is flawed in design. It's basically a Thighmaster in commercial form.

Calves

The calf is a somewhat stubborn muscle mainly because it is used so often every day through normal activity. Most people don't train their calves with the same intensity they train other "ego" muscles. Nothing looks more silly than big quads and small calves. Make it a point to train your calves with the same intensity that you train other major muscle groups because in the same token, nothing looks better than a proportional set of muscular calves.

Standing Calf Raises

This is one of the best overall calf exercises. The primary muscles involved are the calf muscles. Little if any significant secondary muscle involvement.

Execution

The Standing Calf machine allows you to train calves in a standing position. You step on to an elevated block and bring your shoulders into two padded arms that are attached to weights via a lever arm. The machines are typically selectorized, but there are plate loaded versions as well. Most all variations of Standing Calf machines offer the same movement and overload to the calves.

Step on to the block or foot stand with the balls of your feet just behind your toes. You then extend your calves (as if you were standing on your toes to see over a crowd) and slowly lower your heel until your calves are in the fully stretched position.

When doing standing calf raises make sure your body is kept straight through the entire movement. Do not rock your hips forward or backward during the movement.

Max-OT Tip: When training calves it's very important to fully contract and fully stretch the muscles during each rep.

Seated Calf Raises

The Seated Calf raises are an excellent calf exercise. The primary muscles involved are the calf muscles and primarily the soleous muscle. Little if any significant secondary muscle involvement.

Execution

In a Seated Calf Raise machine place the padded bar over the top of your knees. Place the ball of your feet on the foot pad. Raise and lower the weight slowly. Fully contract

your calves at the top of the movement and fully stretch your calves at the bottom of the movement.

45 Degree Calf Raise

This is an awesome calf movement that fits nicely in the Max-OT program. The primary muscles involved are the calf muscles. Little if any significant secondary muscle involvement.

Execution

Seated in a 45 Degree Leg Press place the balls of your feet on the edge of the platform of the sled. Press the sled forward with the balls of your feet and fully contract your calves. Lower the weight slowly and fully stretch the calf muscle.

Hack Machine Calf Raises

This is a calf movement can be done on many hack squat machines. In fact, that's all I find a hack machine good for. The primary muscles involved are the calf muscles. Secondary muscles involved are the quads, hamstrings, and glutes.

Execution

Step into a hack squat machine facing the padded portion of the sled with your chest. Raise the sled and place the heels of your feet on an elevated foot rest. Extend your feet and fully contract your calves. Lower your heels slowly and fully stretch your calves. Make sure your pelvis stays pressed on the pad.

Calve movements are very straight forward. It's important that you fully stretch and fully contract each rep. This is the secret to maximum calf development. Make them a priority in your workout and not an afterthought.

Jeff Willet's Max-OT Training Routine

Day 1 - Monday - Chest and Triceps

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u>
Flat Barbell Bench Press	2	4 to 6
Incline Bench Press	2	4 to 6
Incline Dumbbell Bench Press	1	4 to 6
1 Arm Overhead Dumbbell Press	1	4 to 6
Dumbbell Kickbacks	1	4 to 6
Cable Pressdowns	1	4 to 6
Lying Tricep Presses	1	4 to 6

Day 2 - Tuesday – Legs

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u>
Leg Extensions (just for warm-up)	2	10
Squats	3	4 to 6
Leg Press	2	4 to 6
Lunges	2	4 to 6
Stiff Leg Deadlifts	2	4 to 6

Day 3 - Wednesday - Back and Biceps

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Pull Ups (as many sets as it takes to do 50 reps - usually 3 or 4)	?	50
Barbell Rows	1	4 to 6
Pull Downs (in front)	1	4 to 6
Low Pulley Row (V-Bar)	1	4 to 6
Low Pulley Row (medium grip straight bar)	1	4 to 6
Alternating Dumbbell Curls	1	4 to 6
Barbell Curls	1	4 to 6

Day 4 - Thursday - Shoulder, Traps, and Neck

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u>
Barbell Shoulder Press	2	4 to 6
Side Lateral Dumbbell Raises	2	4 to 6
Bent Over Rear Lateral Dumbbell Raises	2	4 to 6
Shrugs	2	4 to 6
Low Pulley Row (medium grip straight bar)	1	4 to 6
Neck Flexion	2	6 to 8
Neck Side Flexion	2	6 to 8
Neck Extension	2	6 to 8

Day 5 - Friday - Calves, Abs, and Forearms

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u>
Seated Calf Raise	2	4 to 6
Standing Calf Raise	2	4 to 6
45 Degree Calf Raise	2	4 to 6
Leg Raises	2	20
Crunches	2	20
Side Crunches	2	20
Wrist Curls	2	4 to 6
Reverse Curls	2	4 to 6

Conclusion

The week's Max-OT lesson aims to solidify the foundation of what makes muscle grow - overload. Through the years of your training you have been continually bombarded with various training programs and ideas. You will continue to be exposed to different routines as the years come. The difference with Max-OT is that it works strictly on the sound principles that makes makes muscle grow. You are now learning a training approach, a training science that will be with you for the rest of your life.

Max-OT is solid and efficient and it's designed to produce results every workout, every set, and every rep. There are no wasted workouts. There are no wasted sets. There's no guesswork. Max-OT is sound with defined physiological principles that ignite and accelerate muscle growth.

Look, it's simple. High reps don't produce muscle growth, drop sets don't produce muscle growth, supersets don't produce muscle growth, and light weight certainly does not produce muscle growth. There is only one thing that signals a muscle to grow and that is maximum overload. It's that simple. It's that basic. Without maximum overload muscle does not need to adapt. If there is no reason for muscle to adapt there is no reason for growth. If a muscle is not given a stimulus suitable to initiate muscle growth then you will not get maximum muscle growth.

I'll repeat an excerpt from earlier in the lesson: Anytime you train with less than maximum overload you actually give your muscles a reason **NOT** to grow. And you create an adaptation environment that's counter productive to muscle growth. If a muscle is called upon for less than full power and full contraction it will tend to adapt to this lesser overload - an adaptation that will actually lead to muscle and strength loss. Think maximum overload. Think Max-OT.

Max-OT Exercises - Part 4

The weeks are blazing by. Is it just me or do the days feel only 12 hours long to you too? Where does time go? When building muscle time is an important consideration. It's an important factor in the physiological activities that occur as a result of training. Time is required to workout. Time is key in the rest between sets. Time between workouts is a fundamental requirement for recuperation and growth. And time is something we don't have much of.

This brings me to an important subject that has yet to be properly addressed and explained - the detriments of missing workouts.

How many times have you missed a workout and "made it up" later in the week? Everything is fine right? You made up the workout. No harm done. Wrong! You didn't "make up" the workout. What you did was missed the workout. You missed the opportunity to ignite muscle growth. And then you screwed up your entire rhythm and recovery process by throwing the workout in where it wasn't scheduled.

There is no such thing as making up a missed workout. Why? Time. Time has passed and you can't get it back. When you miss a workout and make it up three days later you have lost 3 days of recovery and growth that you will never get back. Those three days of growth opportunity are gone forever and you'll never have them again.

So if you think you can just "make up" a missed workout, forget it. It can't be done. Time is both your friend and your enemy. Time management is an essential element in Max-OT for maximizing muscle growth. Structured properly and Max-OT will squeeze all the recovery and growth potential out of every minute of the day. Mismanaged or disrupted and time is muscle growth's worst enemy.

Max-OT Tip: Never miss a scheduled workout and don't kid yourself into thinking you can make it up later. A missed workout can never, ever be made up. Miss workouts and you'll never reach your maximum physical potential.

To make significant and continual gains in muscle size and strength you need to be consistent. Missing workouts will only delay or retard your progress. Max-OT is designed in such a way that it creates a training atmosphere that encourages commitment. So not only is Max-OT the most effective way to build muscle, but its structure acts to feed the desire to train.

Training with high intensity and low volume makes your workouts short and very effective so you train less and make more gains. There's no excuse to miss a workout with Max-OT. If you can spare 40 minutes a day 5 days a week, you can then be on your way to making maximum gains in muscle size and strength. More gains than any other training method.

Remember the definition of Max-OT Efficiency - **the ratio of muscular overload achieved to the time and energy applied to achieve this overload.**

Max-OT is maximum overload in minimum time. Now this definition is referring to the actual workout, but the same philosophy applies to the long term mechanics of Max-OT. Look at your long term Max-OT schedule in the same manner you do each Max-OT workout. Efficiency is one of the most important components of Max-OT both short term and long term.

Don't Talk Yourself Into Missing a Workout

Over the years I've found that in most cases missed workouts are self created. You have to create a mental approach to training that ignites motivation. Eliminate negativity. Eliminate justification for what you know is unjustifiable.

Ask yourself, the last time you missed a workout, "Did I really need to miss that workout?". Look, when you miss a workout there is only one person that suffers the consequences - you.

Shoulders and Traps

If one muscle group catches the eye more than any other it has to be shoulders. A wide pair of shoulders creates an impact on your physique unlike any other muscle group. Shoulders are not a complicated muscle group. They are used to raise the arms in front and to the side and they are used in all overhead pressing movements.

Training shoulders is straightforward and when done right, very rewarding. Rarely does someone's shoulders respond slowly to overload. Typically, shoulders respond with quick growth and strength increases. The main thing you need to be careful with are shoulder injuries. Ironically, most shoulder injuries are caused when training another muscle group and not when training shoulders. And even more shoulder injuries occur when not training at all, but when subjecting the shoulder joint area to unusual stress.

The shoulder is the most complex and versatile joint in the body. This complexity and versatility leads to the extensive mobility this joint provides. It's because of this immense mobility that also leads to joint fragility as well. A shoulder injury, even minor, can be a big set back.

Strong shoulders provide strong protection to injuries. Not only do you benefit visually from well developed shoulders, but you benefit structurally as well. The negative here is finding shirts that will fit. A problem I'm sure all of you are more than willing to live with.

Traps tie the shoulders, neck and back together. Do not ignore this important muscle. And do not over-develop this muscle. Over developed traps will make the widest pair of shoulders look pitifully narrow. You want even development between the traps and the shoulders.

Deltoids

Military Press (Barbell Shoulder Press)

A classic compound movement that is also the most effective overall shoulder exercise you can do. Primary muscles involved are the deltoids. Secondary muscles used are the triceps, traps, forearms, and a little bit of upper chest.

Execution

Shoulder presses should be performed in front and behind the neck. This is important. Shoulder presses behind the neck put undo stress on the shoulder joint's tendons, and ligaments.

Your grip on the bar should be determined in the following manner: As you press the bar up, when your upper arms are parallel to the floor your forearms should be perpendicular.

With your grip determined press the bar up with explosive power. Lower the bar twice as slowly as you raise it.

Max-OT Tip: To add extra intensity to this movement do not lock your triceps out at the top of the movement. You're training shoulders and not triceps. Past a certain point most of the muscular load is shifted to the triceps and away from the shoulders. You want to stop your ascent right before this happens. This keeps more overload directed at the shoulders.

Make sure you don't lean too far back during military presses. This will take overload away from the shoulders and direct it more to the upper chest. You want to keep your back straight. To help keep it straight you can use a seated bench with a back rest or you can use a regular flat bench and have your training partner allow you to use his knee for support.

Shoulder presses can be done seated or standing. If you do the standing don't waste energy and strength cleaning the bar to your shoulders. Use a squat rack so you can walk under the bar.

Dumbbell Shoulder Press

This is similar in execution to the military press, but dumbbells are used instead. Primary muscles involved are the deltoids. Secondary muscles used are the triceps, traps, forearms, and a little bit of upper chest.

Execution

These can also be performed seated or standing. With the dumbbells at shoulder level, drive upward with explosive force. Lower the weight twice as slowly as you raise it.

Dumbbells allow flexibility in wrist movement and increased range of motion. To take advantage of this extra flexibility at the bottom of the movement, the start, your palms should be facing inward. As you press the dumbbells up rotate your palms forward. On the way down rotate your palms inward to starting position. This allows for greater range of motion at the bottom of the movement.

As with military press, do not lock out your triceps at the top of the movement. Keep the tension fully on the deltoids.

Max-OT Tip: Notice how I'm always advocating explosive movements at the start of the exercises. This explosiveness is key to maximizing overload and there is some speculation that this explosive movement can create a hyperplasia effect in muscle cells effectively increasing muscle cell count.

Dumbbell Side Laterals

Dumbbell Side Laterals are somewhat of an isolation movement for the deltoids, but the very execution of this movement does not limit overload even though it isolates. Primary muscles involved are the deltoids (medial). Secondary muscles involved are the forearms and traps.

Execution

Most people don't take full advantage of the overload that side laterals can provide. It's so easy to do this movement just slightly different, but in doing so you can dramatically

increase or decrease the overload to the muscle. You need find the "sweet spot" with this exercise that allows for maximum weight and maximum overload for full muscle fiber stimulation.

Grip the dumbbells and hold them in front of your waist with your palms facing each other. With your elbows slightly bent, raise the dumbbells laterally with explosive force to slightly higher than shoulder height. At the top of the movement your pinkies should be pointing up slightly and your thumbs should be pointing down slightly. Lower the weight back to the starting position twice as slow as you raised it.

Max-OT Tip: In most cases you can use more weight here than you think you can. Your form should not be rigid. You should be fluid throughout the entire movement. It's better to use momentum during side laterals to increase overload and reduce direct joint stress.

Alternate Dumbbell Front Raises

Like Dumbbell Side Laterals, Dumbbell Front Raises are also somewhat of an isolation movement for the front deltoids, but the very execution of this movement does not limit overload even though it isolates the deltoids. Primary muscles involved are the deltoids (front). Secondary muscles involved are the forearms and traps.

Execution

Grip the dumbbells and hold them in front of your waist with your palms facing your legs. With your elbows slightly bent, raise the dumbbells directly in front of you with explosive force to slightly higher than shoulder height. At the top of the movement your wrist should be directly in front of your face arm's length away. Lower the weight back to the starting position twice as slow as you raised it. Keep your palms facing down during the full movement.

Max-OT Tip: Never lock your elbows during side laterals or front raises. Keep them slightly bent to remove stress the the elbow joint.

Bent Over Dumbbell Raises

Bent Over Dumbbell Raises are an excellent rear delt movement. Primary muscles involved are the deltoids (rear). Secondary muscles involved are the forearms and traps.

Execution

These can be performed sitting on the edge of a bench. Sitting on the edge of a bench with just your butt, lean forward and grip a pair of dumbbells behind your feet. Remaining in the forward leaning position, with your elbows bent about 40 degrees, laterally raise the dumbbells with explosive force until your upper arms are slightly higher than your shoulders. Lower the weight back to the starting position twice as slow as you raise them.

Traps

Barbell Upright Rows

This is a compound movement involving the deltoids and the traps. Primary muscles involved are the deltoids and the traps. Secondary muscles are the forearms and lats.

Execution

Grip width determines the primary direction of the overload. A wide grip directs the overload to the deltoids. A narrow grip directs the overload more toward the traps.

With your grip (palms facing in) determined start with the bar at your waist. Raise the bar upward to right below your chin. Lower the weight twice as slowly as you raise.

Max-OT Tip: A curl bar works well with this exercise and is more manageable because the shorter length allows for better balance.

Barbell Shrugs

The ultimate trap exercise. Heavy barbell shrugs provide direct stimulation and overload to the trap muscles. Primary muscles used are the traps. Secondary muscles used are the deltoids, upper back, and forearms.

Execution

This is a very straightforward movement that is done only one way. Grip a loaded barbell about shoulder width with your palms facing in. With the barbell held at your waist lift the weight upward by shrugging your shoulders. Imagine trying to touch your ears with your shoulders. Lower the weight slowly back to the starting position.

Do not rotate your shoulders when doing shrugs. This movement is straight up and down. Rotating or rolling your shoulders can set you up for serious injury.

Max-OT Tip: To increase the intensity with shrugs you should pause for 1 second at the top of the movement and stretch your traps fully at the bottom of each rep.

Max-OT Tip: I highly recommend using straps for both Barbell Upright Rows and Barbell Shrugs. Using straps allows you to use more weight without the concern for your grip slipping.

Conclusion

These are the most effective shoulder and trap movements for building size and strength as quickly as possible. Nothing fancy, just straight forward, high intensity overload. Forget the machines. Heavy and intense barbell and dumbbell movements are what deliver maximum overload for wide and strong shoulders.

Assess your current time management habits. Are you missing workouts? If you are, reevaluate why you are training. What are you looking to accomplish? Remember, you are the only one who suffers as a result of you missing a workout. Building muscle and strength is as individual of an activity as they come. You're the only one who reaps the benefits of weight training and the only who suffers the consequences as a result of straying from the path of sure results.

Max-OT is not only the most effective training method it is also the least complicated and easiest to structure. The fundamentals of Max-OT training encourage greater commitment and less vacillation. Results are fast and steady. This tends to feed the motivation to train.

Nothing is worse than busting your ass in the gym month in and month out with no results. Max-OT delivers results month in and month out. If you apply the Max-OT training principles you will gain muscle size and strength faster than any other training approach. If you stray from the principles you slow your progress and reduce your results as time steadily passes you by. Time waits for no one.

Remember, time is not on your side. You should maximize each and every workout. Train with maximum overload and maximum intensity, never miss a scheduled workout, and maximize your nutrition and supplementation.

Follow the Max-OT training and nutrition approach and you'll maximize your results.

Max-OT Exercises - Part 5

This week I will sum up the final two muscle groups and the Max-OT exercises used to most effectively train them. I will also touch on the psychology involved in training certain muscle groups and why, for most people, this needs to be addressed.

Forearms and Abs

These are the final two muscle groups to be detailed and they are two very important muscle groups that, along with calves, are the most neglected. I'm going to detail specific training routines to effectively target these muscles so you'll feel and see results. I will explain the detriments of neglecting these muscles and why so many people do. I will show you how to design your training program where these two important muscle groups get trained with the same intensity and consistency as any other major muscle group.

As I said above, along with forearms and abs, calves are muscles neglected by many people that train. Even competitive bodybuilders as a whole put little effort into training calves. Because of this, I will use calves as an example of these three muscle groups to illustrate the mistakes and their remedies in training these muscles.

Nothing looks more silly than a person with a well developed physique, but small, skinny calves. As silly as this looks it is still very common. In fact, you rarely see outstanding calf development on most weight trainers. More often you see calves that look like they were trained as an afterthought.

This lack of calf development is completely unnecessary and with a small amount of planning and the proper training program, outstanding calf development can be enjoyed by anyone willing to put forth the effort and intensity.

It's not difficult and mainly lies in your mental approach and prioritizing your lower leg training. As you progress in this week's lesson I am going to give you the tools and the road map to developing calf muscles that will command attention. With a little mental reinforcement you'll be training calves with maximum intensity and realizing maximum growth and development.

Before I go into the exercises I want to emphasize some points about calf training and training in general. Why do you rarely see outstanding calf development? Let's see.

I always hear people whine about how difficult it is to build size in their calves, but I rarely see these whiners train their calves regularly. And when they do the intensity they train them with is pathetic: hardly what is required to ignite growth. Herein lies the problem.

The calf muscles are not unlike any other muscle group. Other than the fact that they are used in everyday propulsion they are still not that different. In other words, like any other muscle, they require heavy, intense overload for growth to occur. It's that simple. They are muscles like any other and in order to grow they must be forced to adapt to an ever increasing overload.

So what does this mean? It means you train your calves heavy! Maximum overload!

Max-OT Tip: A muscle that responds less requires overload the most. In other words, if a muscle group appears to grow at a slower rate than others, maximum overload is the only stimulation that will produce growth from this muscle group.

Overload

People tend to be more receptive to trying illogical approaches to building muscle than they are to implementing the one fundamental stimulus required for a muscle to grow - overload.

Anytime you consider training in manner different than Max-OT you need to ask yourself why you should train that way. If you know that **overload is the only thing that stimulates muscle growth** why would you train in a way that does not involve maximum overload? That does not promote maximum muscle growth?

Max-OT Tip: A very simple way to rank the effectiveness of a training program without wasting time using it is to evaluate whether or not it incorporates maximum overload. If it does not it's certainly not going to provide maximum growth stimulation. If it's not going to provide maximum growth stimulation, it's not worth your time. In fact, it's a complete waste of time and effort.

This brings me to another fallacy used to backup many training programs and techniques. "Shocking the muscle". What the hell is this? Every time someone tries to introduce a new training program or justify training techniques that don't produce maximum overload they spin this justification by saying you are "shocking the muscle". Can I say it? Bullshit!

What they mean by "shocking the muscle" is introducing an unfamiliar exercise, rep scheme, training routine, or whatever in hopes ("Hope" is all this is based on. Not the science of muscle physiology.) that the change will "shock" the muscle into new growth.

Let me emphasize, the only way to "shock" a muscle into new growth is with greater overload combined with greater intensity. Overload and intensity is what forces a muscle to grow. So if a routine does not maximize the overload to the muscle it will not promote maximum muscle growth.

Okay, that's my overload reinforcement sermon for this week. Now let's get on to constructing the tools and a plan for building maximum forearms and abs.

Forearms

Your forearms are the links between the weight/overload and every upper body muscle group you train. Weak forearms will effect just about every upper body movement and could possibly limit the overload needed for optimum muscle growth. This along with the visual symmetry are why proper forearm training is critical.

Your forearm muscles curl, extend, and rotates your wrists. Your forearm muscles are also primarily used in all gripping activities. Your forearms are used in all upper body exercises to grip the bars and dumbbells and receive a good bit of stimulation as secondary effects of these upper body movements.

Because the stimulation the forearms receive is indirect, full range of motion during overload resistance is needed for maximum growth and strength development. There are several direct movements that stimulate forearm strength and growth effectively.

Wrist Curls

The primary muscles involved are the flexor and extensor muscles of the forearm. Secondary muscles used are the various superficial flexor muscles of the wrist and fingers.

Execution

Grip a straight barbell with an underhand grip with your little fingers about 3 inches apart. While sitting on a bench rest your forearms on the bench with your wrists facing up and hanging over the end of the bench. Curl the bar upward explosively with your wrists. Pause briefly at the top with your forearms flexed and then lower the weight all the way to the starting position twice as slowly as you curled it. Repeat for required number of reps.

Max-OT Tip: If you have access to a shorter straight bar I would recommend using that over a standard Olympic bar. The shorter bar allows for better balance and control allowing you to concentrate more on working the muscle and less on the mechanics of the movement.

Reverse Wrist Curls

The primary muscles involved are the extensor muscles of the forearm. Secondary muscles used are the flexor muscles of the forearm and various superficial flexor muscles of the wrist and fingers.

Execution

Grip a straight barbell with an overhand grip with your thumbs about 3 inches apart. While sitting on a bench rest your forearms on the bench with your wrists facing down and hanging over the end of the bench. Curl the bar upward explosively with your wrists. Pause briefly at the top with the extensor muscles* of your forearms flexed and then lower the weight all the way to the starting position twice as slowly as you curled it. Repeat for required number of reps.

* The extensor muscles are the top muscles of the forearm. The flexor muscles are the bottom muscles of the forearm.

Standing Dumbbell Wrist Curls

This is a very effective total forearm muscle building exercise that is rarely done.

The primary muscles involved are the extensor and flexor muscles of the forearm. Secondary muscles used are the various superficial flexor muscles of the wrist and fingers.

Execution

Standing straight with your arms by your side and palms facing in grip a dumbbell in each hand. Using just your wrist, curl the dumbbell up toward your side. Pause briefly at the top of the movement and flex the flexor muscles of the forearm. Curl the weight back down and away from your side. Pause briefly while flexing the extensor muscles of the forearm. Repeat for a desired number of reps.

Abs

Not only does a well developed set of abdominals add an aesthetic appeal to a physique unlike any other body part, but your abdominal muscles assist in virtually every movement your body makes both during training and just about every other conceivable activity.

Abdominals should be treated as a major muscle group. They should not be trained as an afterthought at the end of a workout. They should be methodically trained as you would train your chest, back, legs, etc. It's important to view your abs in the same manner as you do the fore mentioned muscle groups and apply the same intensity principles.

Like calves, but much more so, your abdominals are called upon for their strength all the time. From sitting to standing to running, your abs assist and help power each of these activities. When you lie down you use your abs. When you get up you use your abs. When laugh, sneeze, cough, burp, you name it, you use your abdominal muscles.

It's very important to have well developed and strong abdominals. A strong set of abdominals will help protect you from many common weight training injuries. In fact, most lower back injuries are due in part to weak abdominals. I would venture to say that 50 percent of all lower back injuries are related to underdeveloped and weak abdominals.

I recommend training abdominals once and sometimes twice weekly. And your abs can be trained with the Max-OT training principles. Understand that your abs are muscles and should be developed through overload.

I want to clear a misunderstanding that most people have about abdominal training. No matter how many sit-ups, crunches, or leg lifts you do you will not be able to have a well defined midsection until the fat in this area is reduced. And no matter how much you train your abs you will not reduce the fat in this area unless a proper nutrition diet is followed that will allow your body to burn the excess definition blurring body fat.

Max-OT Tip: There is no such thing as "spot reducing" body fat. In other words, doing abdominal exercises does not burn fat specifically in the abdominal region. In order to lose fat in the mid section you must burn more calories than you consume on a daily basis. When you burn more calories than you consume your body derives these extra calories from stored body fat. When this happens you lose body fat.

Understanding What Abdominal Muscles Do

The abdominal muscles and how they function are generally misunderstood by even the most astute trainers. Your abdominal muscles connect the bottom of your ribcage to the top portion of your pubic bone. Contracting your abdominals shortens the distance between your sternum and your pelvis while rounding the lower back.

Many people are just not fully aware of the true function of the abdominal muscles. Your abdominal muscles do not bend you at the hip. Your abdominal muscles are responsible for the movement of your upper torso towards your pelvis a grand total of 30 to 35 degrees. That's it.

Developing strong, well defined abs is not difficult if you know how. Most people and trainers however, do not. Most abdominal exercises are about 30% efficient. Max-OT ab routine is closer to 100% efficient. Remember efficiency is a key part of Max-OT. The more efficient you can make an exercise the more effective it will be.

When you understand the biomechanical aspects of certain muscles used to complete many abdominal movements you can then begin to isolate the abdominal region for more effective and efficient abdominal overload.

Remember that your abdominal muscles are used to shorten the distance between your sternum and your pelvis about 30 degrees. With this understood you can eliminate many common abdominal exercises such as traditional sit-ups.

The Problem With Sit-ups

The problem with sit-ups is just that, they are an exercise that causes you to sit up. This motion goes way beyond the 30 degree abdominal involvement. In doing so it brings into play a set of muscles call the psoas. The psoas muscles attach to your lower back and travel down and around to attach to the front of your femur (upper leg).

The psoas muscles biomechanical action draws the torso toward the thighs, like a sit-up. The psoas muscles also stabilize the lower back in an arched position. So any time you are doing any sort of abdominal exercises and your lower back is arched you are mainly working the psoas muscles with little abdominal assistance.

Eliminating The Psoas Effect While Training Abs

Here is a sure-fire way to completely eliminate the psoas muscles from diminishing the efficiency of abdominal training. During all abdominal movements make sure you never arch your lower back. Always keep your lower back slightly rounded and emphasize the contraction of the abdominal region during the initial 30 degrees of movement. Simple as that, and now I will detail how to effectively accomplish this.

It does not take very long to fully overload the abdominals when you isolate them from any effect of the psoas muscles. Also, training your lower abs first helps to fully overload your entire abdominal region more efficiently.

Lying Leg Raises

This exercise is best done on the floor. The primary muscles used are the lower abdominal. Secondary muscles used are the upper abdominals, obliques, and hip flexors.

Execution

Lie on your back and place your hands palm down under your buttocks. From this position lift your head and shoulders slightly off the floor. This helps keep your lower back firmly planted on the floor to prevent any arching and any action of psoas muscle. With your knees slightly bent raise your legs until your feet are 12 to 16 inches off the floor. Lower your legs to about 6 inches off the floor and then repeat.

Max-OT Tip: You can add resistance to leg raises to increase the overload by placing a weight on the tops of your feet and ankles.

Vertical Knee Raises

This is an excellent lower abdominal exercise that for some people allows them to easily eliminate the psoas muscle from the movement. The primary muscles used are the lower abdominals. Secondary muscles used are the upper abdominals, obliques, and hip flexors.

Execution

Using a leg raise station that allows you to elevate your body in a vertical position and rest your weight on elbows, bring your knees toward your chest. As your knees come toward your chest your pelvis should rock slightly forward and your lower back should be slightly rounded. This eliminates the arching of the lower back and takes the psoas muscle completely out of the movement. Lower your knees slowly.

Max-OT Tip: Do not let your legs straighten all the way out at the bottom of the movement. Keeping your knees slightly bent maintains constant tension on the lower abs through the entire movement. Also, a dumbbell can be held between your feet to increase the overload.

Cable Crunches

This is the all time most effective upper abdominal movement. In fact, if you could only do one abdominal exercise this would be it.

The primary muscles used are the upper abdominals. Secondary muscles used are the lower abdominals and obliques.

Execution

This abdominal exercise is performed using a cable pull down machine. Any cable machine that gives you access to an overhead cable and an unrestrictive spot directly below on the floor will work perfectly.

Using a rope attachment grab the cable/rope and with the machine set to the desired weight lower yourself down to the floor onto your knees. With your hands above your head crunch your abdominal muscle approximately 30 degrees from vertical. Raise yourself up slowly from the contracted 30 degrees to vertical and repeat.

Max-OT Tip: Contract hard at the bottom of each rep and hold the contraction for 2 seconds. Allow your abdominals to remain tight as you ascend to the upper portion of the movement. This creates extra intensity through continual tension on the abs.

Ab Crunches

Ab crunches are a tried and true abdominal movement. The primary muscles used are the upper abdominals. Secondary muscles used are the lower abdominals and obliques.

Execution

Lying on your back, elevate your knees until your thighs are perpendicular to the floor. With your knees bent and your fists touching your chin raise your shoulders up and toward your knees. Breathe out as you contract your abdominal muscles. Hold this contraction for one second and slowly return to the starting position and repeat.

Max-OT Tip: For increased overload hold a weight a few inches in front of your face. Also, do not lie completely back on the floor at the end of each rep. This keeps constant tension on your abs and increases overall intensity.

Summary

Follow these guidelines and implementing the Max-OT details will add increased intensity, isolation, efficiency, and overload to your abdominals while decreasing stress to your lower back.

Forearm and Abs Training Outline

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Wrist Curls	2	6 to 8
Reverse Wrist Curls	1	6 to 8
Dumbbell Wrist Curls	1	6 to 8
Lying Leg Raises	1	8 to 10
Vertical Leg Raises	1	6 to 8
Cable Ab Crunches	2	6 to 8
Lying Ab Crunches	1	6 to 8

Conclusion

Well, that covers the details of the most effective exercises employed in Max-OT training. The idea of Max-OT is to generate the greatest overload efficiently and effectively to stimulate maximum muscle growth response in minimum time. Great philosophy huh? Build maximum muscle in minimum time. That's Max-OT!

As the months go by and you start packing on the muscle you will still be bombarded with "gym-advice" and new training routines probably on a daily basis. You will however, already be armed with the undisputed knowledge of Max-OT. As you progress, your results will solidify the importance and effectiveness of Max-OT training and the principles that comprise this unique approach to building muscle.

I am convinced that the results you'll get with Max-OT will keep you loyal to the program and to yourself. If you are ever tempted to stray from Max-OT even for just one workout, remember the Max-OT Tip to evaluate a training routine, technique, or principle before you waste time doing it.

Max-OT Tip: A very simple way to rank the effectiveness of a training program without wasting time using it is to evaluate whether or not it incorporates maximum overload. If it does not it's certainly not going to provide maximum growth stimulation. If it's not going to provide maximum growth stimulation, it's not worth your time. In fact, it's a complete waste of time and effort.

I'll see you next week as we delve deeper into the fine art of building muscle size and strength with Max-OT.

Max-OT and Cardio - Burning Fat As You Build Muscle

One of the most widely asked questions over the past few weeks has been how to correctly incorporate cardiovascular exercises with Max-OT. I'm going to lay out the correct way to integrate cardio work with Max-OT so that you get the maximum fat burning effect from the cardio and still retain all the muscle building impact generated by Max-OT.

I'm going to discuss cardio integration into Max-OT, but I will mainly detail the total requirements for burning fat. This involves more than just cardio. I will profile two approaches to achieving contest condition and show why the Max-OT approach is the most effective by far.

From reading many of your questions I get the feeling that many of you are putting too much emphasis on your cardio. Most people structure their cardio training in a way that negatively impacts their muscle's ability to grow. That's not good and is certainly something you want to correct.

Cardio has three main benefits.

- 1.) Expends energy by burning calories - hopefully in the form of stored body fat.
- 2.) Enhances cardiovascular health.
- 3.) Enhances endurance.

The effect cardio exercises have on improving cardiovascular health is their most important function. However, most people that train view cardio work as a necessary evil to help burn body fat and achieve a lean appearance. In fact, most all lifters only do cardio for that purpose and that purpose only. Well, like it or not, you're doing your entire body good by incorporating a cardio routine with your training, but you need to understand the ramifications on muscle growth.

Max-OT and Cardio - Burning Fat As You Build Muscle

Burning Fat

Most people are very confused when it comes to burning fat. They really don't know how it's done or how to do it. To get a basic understanding on how to decrease your body fat you need to know how you get fat. It's very simple and it works like this: If you consume more calories that you burn you are in a "positive energy balance". When you are in a positive energy balance you will store the extra energy (no matter what source the energy is from) as fat.

There are so many myths surrounding fat gain and fat loss and this market segment is a \$33,000,000,000 - yes, 33 billion dollar a year industry. 33 billion dollars are spent each year just in America by people trying to lose fat. And 90 percent of this money spent yields no results, either from product scams or, just as equally, from failure to comply with the fat loss protocol.

As I said earlier, total calories consumed verses total calories burned is what determines whether you gain or lose body fat. As simple as that sounds, that's as complicated as it gets.

With this basic understanding you now have a foundation of how to lose fat, but there is a problem, more correctly, an obstacle that must be dealt with and overcome. You want to lose fat without sacrificing any muscle. In fact, you want to lose fat while you build muscle.

Let me tell you that most people do not know how to do this. Max-OT and the principles that are involved are designed to allow your body to build muscle and lose fat concurrently.

I want to paint a scenario for you and think to yourself if this has happened to you or if you have seen this happen to others. We will use "Randy" as our example.

Randy's Fat Loss Approach

Randy has been training for a few years and decides he's ready to compete in his first bodybuilding show. The show is about 12 weeks away. The first thing he does is increase his reps. By increasing his reps he is forced to reduce the amount of weight he trains with. "No big deal". thinks Randy, "High reps burns fat".

The second thing Randy does is reduce his calorie intake. With this he cuts out all dairy products, sweets, and yes, he cuts out all his sodium intake - which he kept low year round anyway. Ever since he started training people told him that he should cut out all salt. He never thought to ask, but it sounded logical.

As if this isn't enough Randy then increases the volume of cardio he's been doing. He's now doing 45 minutes on the stair climber after each workout and on his off days. Burning that fat. It's tough, but he knows that's what he has to do.

As the weeks go Randy's clothes get looser and the weights feel heavier. So he goes lighter. ("Hey, I'm on a diet.". he thinks. "That's supposed to happen.") The scale is showing he's dropping weight. Plan's working.

Well as the weeks continue to go by he starts checking himself out in the mirror and sure enough, he's getting leaner. Smaller too, but hey, that's what happens. No big deal. Bodybuilding is certainly part illusion. "I'll look bigger when I'm shredded and have a tan", Randy rationalizes.

Weeks continue to click off and his body weight is dropping almost as fast as the weight he's lifting. Sure he's getting leaner and the tan sure has helped, but he's now looking kind of skinny, stringy, and he is probably going to be in a weight class lower than he had planned.

He can't understand it. Did he really have that much fat on him? Did he lose muscle along with the fat? If so, why? "I'm doing everything perfectly", Randy's thinking.

Now it's crunch time. 2 weeks before the show he "carb depletes" - you know, to burn that last little bit of fat. "All bodybuilders do this." he says. He goes to near zero carbs and increases his reps even further. He's going from exercise to exercise with little rest. And for more carb depletion he doubles his cardio. He's dragging ass, but that's what it takes.

To Randy's surprise he drops another 9 pounds during this carb depletion. He sure could have used those 9 pounds he thought, but he'll be ripped. However, when he looks in the mirror he's not seeing a big shredded bodybuilder. It's more like the smooth swimmer look. A little concerned, but "It's water," he thinks. "That's all. When I cut my water out the last few days everything will come together."

Well, contest day and he steps on the scale. Yikes! Not only is he in the next lower weight class than he thought he would be, but he just barely made that class. Another pound and he would be two weight classes lower.

On stage Randy looks small and smooth. What happened? What did he do wrong? Where did all the muscle go?

Does this sound familiar? How many people have you seen do this? Go to any local or regional bodybuilding show and you'll see more people on stage that more than likely shouldn't be up there than should. Go to a natural show and the percentage of those that should not be up there is even higher.

Why does this happen to most people? Plain and simple, they are doing just about everything wrong. In fact, they are doing just about the opposite of what should be done to burn fat and build muscle.

I have illustrated this example to get you to think about things. I want to see if you can to relate to this approach to losing fat. Can you? If so, you need to forget everything you think you know about losing fat.

You see, there is much more to losing fat than just doing cardio. Cardio is just one single piece to the fat loss puzzle. The idea is to lose fat and not lose muscle. Ideally you want to build muscle while you are losing fat. Max-OT is all about building muscle. Follow the Max-OT program and you can easily build muscle while you lose fat. But like all the misinformation about training and building muscle there is equally if not more misinformation about losing fat.

Now we are going to illustrate a perfect scenario for losing fat and getting ripped the Max-OT way. We will use "Steve" as our example.

Steve's Fat Loss Approach

Steve has been training for a few years and has packed on quite a bit of muscle. He has trained heavy and intensely - Max-OT style and is now ready to enter his first bodybuilding contest.

Right now Steve is not real lean but he's not holding a lot of fat either. He's carrying about about 12 percent body fat. His goal is to lose body fat and no muscle. It doesn't matter how low he gets his actual body fat percentage-wise, just so he visually is shredded and has lots of muscle.

Steve also saw what Randy did and learned from watching him that his approach was wrong. Why did Randy lose a bunch of weight and still not get shredded enough? Why did he lose so much muscle? It's pretty evident that doing exactly opposite of what Randy did, what just about everyone does, would be a much better way to go.

Steve decides that he not only doesn't want to lose any muscle, but also wants to continue to build muscle as he diets for the contest. How do you build muscle? Overload.

Heavy weight, low reps. Steve continues to follow the Max-OT training protocol right up to contest time.

Max-OT Tip: The dumbest thing you can do when preparing for a bodybuilding contest is to lighten up on the weights and increase your reps. For some reason people are under the assumption that this helps you get ripped. This could not be further from the truth.

One of the most important principles in Max-OT training is that any time you wrap your hands around a bar you are doing so to build muscle. You must realize that weight lifting is not an aerobic exercise. Increasing your reps and using lighter weight does not increase fat burning. But it will decrease muscle size and strength.

For muscle preservation, Max-OT principles are even more critical during a calorie restricted phase. To build muscle and lose fat you have to train to build muscle and let your diet and cardio burn the fat. There is no way that lifting light weight has any significant fat burning impact.

As Steve continues to train heavy he continues to build muscle and add strength while he loses fat. Makes perfect sense to me.

Steve cleans up his diet but does not cut out the sodium. In fact, he increases his sodium intake to take advantage of the intracellular fluid retention for nutrient transport, increased strength, and injury prevention.

Max-OT Tip: Sodium is not the evil monster it has been made out to be. As a bodybuilder, sodium is your friend. A real good friend. Sodium is a tool you should learn how to use to your benefit. Sodium is critical in many metabolic functions. By eliminating your sodium intake you decrease nutrient transport, decrease muscle cell volume, and decrease the joint fluid retention thereby increasing susceptibility to soft tissue injuries.

Steve knows that the only time he should restrict his sodium is just a few days before the show. In fact, increasing his sodium intake while he is dieting will not only help his training, it will allow the restriction of his sodium a few days before the show to have a more dramatic impact on his appearance the day of the show.

Steve now starts to implement regular cardio exercises into his program, but he does cardio the Max-OT way. This allows him to burn extra calories and in turn, decrease his body fat, while continuing to build muscle.

Max-OT Tip: Building muscle while losing fat is possible if you structure your training correctly.

Max-OT Cardio

Cardiovascular exercise is very important for overall health. No question about it. But too much cardio can certainly impede muscle growth. Cardio impedes muscle growth by taxing the reserves in muscle that would normally be used for growth and repair. Cardio also burns calories that could be used to fuel the muscle growth process.

From a health standpoint, some cardio should always be done. What you want to do is strike a balance between your cardio and weight training so that you maximize the fat-burning benefits and reduce the negative impact the cardio will have on building muscle.

The most important thing here with regards to the cardio maximizing fat-loss while having minimal, if any, negative impact on muscle growth is the intensity of the cardio,

the length of your cardio work, and ***the time you do your cardio in relation to your weight training***. I recommend doing cardio exercises 3 to 5 times a week for 30 minutes each session. The key is timing your cardio for maximum efficiency.

Max-OT Tip: You should approach your cardio exercises with the same mental focus and intensity you do your Max-OT training. Max-OT Cardio is not a walk in the park. It's intense, it's short, and it's scientifically structured to burn fat while preserving muscle.

Intensity and cardio volume are the two energy expenditure barometers during aerobic exercise. Research shows that high intensity training for brief periods of time is more effective at burning fat than long duration low intensity aerobic activity. Also, there are some unique physiological factors that occur only in high-intensity short duration activity that favorably impact muscle recovery.

The higher the intensity of the cardio the greater the fat-loss and the greater the calorie expenditure during the length of exercise. And most importantly, the less of a negative impact it has on muscle breakdown.

Longer duration, lower intensity aerobic exercise tends to impact muscle growth negatively and has less of an effect on fat loss. Though you may burn calories, this type of aerobic exercise derives the majority of the calories burned from lean tissue and less from fat. This is exactly what you don't want.

To minimize cardio's negative effects on muscle growth you must schedule your aerobic sessions as distant in time from your weight training as possible. This means **DO NOT** do both cardio and weight training in the same workout. Don't do cardio immediately before you weight train and don't do cardio immediately after you weight train. This is how most people do it and it's completely wrong and detrimental to optimal muscle growth.

Max-OT Tip: Your cardio exercises should be done approximately 8 to 12 hours before or after you weight train. Never do cardio immediately before or immediately after your Max-OT workout.

This means if you train in the morning you do your cardio at night. If you train at night then do your cardio in the morning. And to take it a step further, you should preferably do your cardio on your non weight training days.

And as I said earlier, the intensity of your cardio is a major factor in both the benefits from cardio (endurance, fat-loss, and vascular health) and the negatives of cardio (reduced muscle growth response). Timed correctly however, will allow you to maximize cardio's effects without any negative impact on the muscle building effects of Max-OT weight training

As the weeks go by Steve's strength does not diminish. In fact, he's getting stronger. One plus to this is that his motivation stays high and he stays focused. With his strength increasing he knows he's building muscle.

Steve has structured his diet in the percentages of protein, carbohydrates, and fats as outlined for Max-OT. He has determined his maintenance level of calories and reduced them by 150 calories. Each week he assesses himself and adjusts his total calorie intake accordingly. If he doesn't feel like he's losing fat fast enough, he lowers his calories by another 150.

Max-OT Tip: It's more effective to lower your calories than to increase your aerobics. Increasing aerobic exercises to burn more fat will physically tax your muscles energy

reserves. This negatively impacts muscle growth. Remember, to lose fat you must burn more calories than you consume. The simplest thing to do is to intelligently reduce your caloric intake. This method preserves maximum muscle mass while dieting. You lose more fat and keep more muscle.

As Steve's contest nears things are working great. He has lost no strength and the fat is melting off. He's getting lean and staying big and strong. He has lost about 1 to 1 1/2 pounds each week and it has been all fat. Even though he's 15 pounds lighter he looks much bigger.

Steve follows the same diet protocol right up until 6 days before his contest. He does not "carb deplete". He has dieted and trained correctly and carb depleting does not factor in. He does however, carb load the week leading up to the show. He also does not restrict his water intake and only cuts back slightly the night before the show.

This carefully structured approach to getting ripped for the contest has worked perfectly. Steve maintains virtually all of his muscle mass and loses enough body fat to come into the contest shredded.

I wanted to present these two different approaches to you so you could visualize the difference between them. Burning fat is not difficult. Erasing from your mind all the misinformation you have acquired is. Look, most people do not know how to properly diet to lose fat and build muscle. It's not necessarily their fault, it's just that they have been taught wrong. Now you have been taught right.

Fat loss Wrap-up

1. DO NOT train with more reps and less weight. This does not burn fat.
2. Train heavy - Max-OT. You always want to be building muscle. This is the only way this happens.
3. Determine your maintenance calorie level. Reduce your calories by 100 to 150 per day per week below the determined maintenance.
4. Do your cardio work 3 to 5 times a week 8 to 12 hours before or after your weight training session. DO NOT schedule your cardio immediately before or immediately after your weight training.
5. Cardio exercise should be very intense and about 30 minutes in length. High intensity short duration cardio exercise burns fat more effectively while reducing lean tissue breakdown.
6. Consume adequate amounts of sodium and drink plenty of pure water.
7. Progressively lower your calories each week as necessary.
8. 7. Do NOT carb deplete unless you want to lose a lot of muscle in a short amount of time.

Conclusion

I'll say it again, losing fat and building muscle is not difficult. It's not rocket science. So why do so many people have such a hard time with it? The answer, misinformation. The same sources that have taught you to train wrong are also teaching the wrong way to lose fat while you are building muscle.

It's very evident that only about 10 percent of the people that compete know what they are doing when it comes to shedding body fat without losing muscle. Go to any local bodybuilding show and you'll see only a handful of the competitors display a physique that was prepared properly. And this is why they win.

This week I have mapped out a very good general guideline of the dos and don'ts of eliminating fat while keeping and building muscle in the process. Read this section several times and let it sink in. Look at the logic. There's no Voodoo. There's no magic. There are no tricks. Just a sound, effective, and unbeatable scientific approach that will work for everyone.

Make sure you understand the guidelines for Max-OT Cardio. Most people do their cardio wrong and have done so for years.

The main factors to consider when structuring your cardio are:

- 1.) Time you do your cardio.
- 2.) The level of intensity in which you do your cardio.
- 3.) Length of your cardio sessions.

Each one of these variables plays a vital and important role in effectively burning body fat and not burning lean muscle tissue. Many of you are training hard and heavy for an hour and then jumping on a stair climber afterwards for another 45 minutes. That is a surefire way to slow muscle growth to a crawl if not stop it completely. It's like taking a step forward and 9/10 of a step backward.

A properly structured Max-OT training program gives you the best of everything. Max-OT forces your muscles to grow by applying the only stimulus that ignites muscle growth - overload. And now you have the tools and knowledge to integrate cardio in a manner that maximizes the fat burning process without negatively impacting muscle growth.

Following the Max-OT training program gives you a big, strong, and lean physique the intelligent way. With Max-OT nothing happens by accident. There is never any guess work. No crossing your fingers and hoping you get results. Max-OT lays it all out in a sophisticated, effective, and efficient program that will allow you to pack lean muscle mass and strength faster than any other training program.

The 6 Month Max-OT Road Map

Designing a 6 Month "Plan of Attack" For Maximum Results

Week 12! This went by way too fast. What do you think? I'll tell you what, blink your eyes and the world changes. This program is a good example of how quickly time passes and it underscores the necessity of maximizing every day and every workout because as a day passes it never returns. A missed workout is a missed opportunity to ignite muscle growth. And like I've said before, you can never make up a missed workout.

What I am going to do in this last lesson is design a 6 month Max-OT "Plan of Attack". A Max-OT road map to follow for the next 6 months that I guarantee will pack more muscle on you during the next 6 months than you have been able to gain in 2 years.

This "Max-OT Road Map" will be broken down into 26 weeks. There will be multiple routines during this period to take advantage of various Max-OT techniques and principles. I will also include 6 phases in this program that you will help to motivate you to obtain goals you want to reach.

Building muscle is just as much mental as it is physical. You have to have the motivation to generate the intensity required to spark muscle growth. You can't just go through the movements. You have to "link up" your mind to your muscles.

This "mind-muscle" link is something that is very difficult for many people to establish. I feel that mastering this ability is what separates those that excel from those that don't.

I will give you tips to use both during and after your training to help you master this "mind-muscle" link throughout this Max-OT Road Map.

6 months may seem like a long time, but believe me it's not. It's the blink of an eye. Your approach to the next 6 months will be broken down into segments. This will enable you to reinforce your commitment to building maximum muscle and strength. By defining each time and event element you will be able to precisely evaluate and navigate your progress. Doing this also helps you adapt the needed "mindset" for maximizing your results.

Like I've said before, building muscle is not a random event. You must plan and execute, and the more efficiently you do this the greater your success in reaching your goals.

The Max-OT Road Map will be broken down into the following segments:

6 Months

This is the long term time element. 6 months of Max-OT training, as most of you have discovered, can and will produce some phenomenal results.

You should set a 6 month goal. Some like to set goals and specific target dates for accomplishing them. I'm all for setting goals, but never let a goal stall or defeat your progress.

I set mental goals. I never write them down because I feel that's too permanent. A mental goal is flexible and you can use this flexibility to increase your results. I set what

I know are unobtainable goals, but use these goals for visualization effects. And most importantly I train to meet these goals. I also tier my goals from unobtainable to obtainable.

By tiering my goals I'm able to train at an ultra-high level to shoot for the unobtainable, but maintain continued motivation by achieving and/or exceeding my intermediate expectations. Never set a goal too low just to be able to achieve it.

2 Months

2 months or about 8 weeks is a Max-OT Training Cycle. You will take a full week off from training every 8 weeks. This is the Max-OT Cyclical Recuperation period and it is essential to maximizing Max-OT's effect on muscle recovery and growth.

This week off allows for both mental and physical recuperation. It lets you reflect in detail over the 2 months of training that you have gone through and evaluate the success.

1 Month

Each month your Max-OT routine will change (This is a Max-OT routine rotation). I'm not talking a major change. Just slight changes in things such as exercise, exercise order, training rotation, etc. What will never change are the basic Max-OT principles.

So over the course of 6 months your Max-OT training routine will change 6 times.

Through many years of refining Max-OT I have found that a subtle change in the routine after 4 training rotations (A training rotation is the completion of one complete workout for each muscle group.) appears to prevent muscle growth stagnation. Although the fundamentals of Max-OT prevent the typical "plateaus" most training programs lead you to, we are looking for maximum growth all the time. This approach provides for continual progress.

1 Week

One week is one complete training rotation. This is a short term time element highlighted to assess how your training is progressing. It's important to review each week to make sure you are living up to your training expectations. This will be broken down even further as you'll see below.

1 Day

Each day you need to assess your physical and mental condition. You need to assess your diet, your supplementation, and your training.

Ask yourself these questions:

Were all the events in your day geared toward maximizing your results? If not why?

What can you do to make sure each day produces maximum results?

Though this is a "training program" there are many elements that effect your results that occur away from the gym. It's of the utmost importance that each day is structured, both in and out of the gym, to maximize muscle growth. Daily planning and assessment are key to maximizing success.

Each Workout

This is where you grade your individual workout performance. Your goal is to maximize every workout. Remember, once you complete a workout that's it. It's done. That opportunity for stimulating muscle growth at that point in time is gone forever. This is why it's so important to get the most from every workout. In building muscle, there's not a tomorrow. There is no such thing as "making up" a missed workout.

You miss a workout and you lose forever that opportunity for growth. A botched workout or a workout performed less than 100% is the same thing. When it's over that growth opportunity is gone.

Each Muscle Group

Here you are breaking the workout down into muscle groups. You should gauge the effectiveness your training has on each muscle group every time you train. This feedback is valuable in continuing to increase your training effectiveness.

Each Exercise

As you can see you are going even further. Here you should evaluate each exercise during each workout. How was your strength during all sets? Where are you at weight wise? Is it time to increase the weight? Always strive to lift more.

Each Set

Each set of each exercise needs to be evaluated not only for performance and effectiveness, but also to determine what you do on your following set. Each set leads to the next.

Each Rep

The individual rep is the very beginning of the overload process. Each rep leads you to the next. In most cases the very first rep of a heavy set dictates the success of that set.

Knowing where you are at and where you want to be is essential. It provides a solid foundation to structure your daily, weekly, and monthly program.

If you train with no structure you'll reap little benefit. This Max-OT 6 Month Road Map provides a precisely structured, step by step training program for the next 26 weeks. It eliminates all the guesswork out of what, when and how to strategically and correctly apply overload to ignite muscle growth.

I highly recommend taking some measurements. Take some photos. This will allow you to make side by side comparisons in 6 months. The results you will experience over these 26 weeks will completely change the way you look, feel and think. Each month, each week, and each workout build upon each other generating a progressive effect that works to produce results with every rep and every set. No more plateaus. No more stalled progress. The more you refine your ability to implement Max-OT the greater the results you will see.

I recommend that you read back over this entire course to refresh your understanding of the Max-OT principles and how and why they work. It's important that you don't stray from the program. Max-OT is a training program designed around the physiology of muscle growth where each element is specific to producing the desired effect.

Let's get started.

The 6 Month Max-OT Road Map

Weeks 1 – 4

Mondays

Legs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	3	4 to 6
45 ° Leg Press	2	4 to 6
Stiff Leg Dead Lift	2	6
Standing Calf Raise	3	6 to 8
Seated Calf Raise	2	6 to 8

Max-OT Tip: No one squats on Mondays. Everyone always trains chest. Max-OT will many times deviate from the norm. This is a simple but good example.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesdays

Chest and Forearms

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Incline Bench Press	3	4 to 6
Barbell Bench Press	3	4 to 6
Decline Bench Press	1	4 to 6
Barbell Wrist Curls	2	8 to 10
Dumbbell Wrist Curls (Standing)	2	6 to 8

Max-OT Tip: The Incline Bench Press should be done on a bench with a 20 to 25 degree angle. Most incline benches are 40 to 45 degrees. Make the adjustment to lower the angle so you target the pecks and not your shoulders.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Back and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Bent Over Barbell Rows	2	4 to 6
Close Grip Pull Downs (using a V-Bar)	2	4 to 6
Pull-ups (add weight if needed)	2	4 to 6
Cable Rows	1	4 to 6
Dead Lifts (these are powerlifting style dead lifts)	2	4 to 6
Barbell Shrugs	1	4 to 6

Max-OT Tip: Barbell rows are mainly thought of as a thickness builder. While this is true, the stretch at the bottom of the movement adds significant effect to increasing back width.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Shoulders and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Dumbbell Press (Palms facing in at bottom of the movement and rotated forward at the top.)	3	4 to 6
Straight Bar Military Press (In front)	2	4 to 6
Dumbbell Side Laterals	2	4 to 6
Lying Tricep Press	2	4 to 6
Tricep Cable Press Downs	2	4 to 6
Seated Overhead Tricep Press (Performed with one dumbbell behind the neck)	1	4 to 6

Max-OT Tip: Wide shoulders make the physique. Overhead pressing movements are king of the mass builders for shoulders. Make sure your grip on the bar is such that when you are at the bottom of the movement your forearms are perpendicular to the floor.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Fridays

Biceps and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	2	4 to 6
Dumbbell Hammer Curls	2	4 to 6
Curl Bar Curls	1	4 to 6
Leg Lifts (with added weight)	2	12 to 15
Weighted Cable Crunches	2	8 to 10

Max-OT Tip: Weighted Cable Crunches are one of the most effective abdominal exercises. They allow overload without lower back stress.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Weeks 5 - 8

Mondays

Back and Forearms

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Pull-ups	?	50
Close Grip Cable Pull Downs (V-Bar)	2	4 to 6
Bent Over Barbell Rows	2	4 to 6
Weighted Hyper-Extensions	2	4 to 6
Wrist Curls	2	6 to 8
Standing Dumbbell Wrist Curls	2	6 to 8

Max-OT Tip: Pull-ups and Pull-downs should all be performed in front and not behind the neck. Behind the neck places extra stress on the AC joint in the shoulder and is less effective at overloading the upper back muscles.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesdays

Shoulders and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Barbell Military Press (In Front)	3	4 to 6
Seated Dumbbell Press	1	4 to 6
Dumbbell Side Laterals	2	4 to 6
Barbell Shrugs	3	10 to 12

Max-OT Tip: During side laterals it's important that when you are at the top of the movement your elbows are as high or higher than your wrists.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Legs and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	4	4 to 6
Lunges	2	4 to 6
Stiff Leg Deadlifts	2	4 to 6
Seated Calf Raises	2	4 to 6
45° Calf Raises (Calf Raise on a 45 ° Leg Press)	1	4 to 6

Max-OT Tip: When training calves it's very important to stretch fully and contract forcefully on each rep.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Chest

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Barbell Bench Press	3	4 to 6
Barbell Incline Bench Press	2	4 to 6
Weighted Dips	2	4 to 6

Max-OT Tip: When bench pressing the bar should be lowered to the bottom of your pectorals. When you drive the weight up it should go up and back at a slight angle.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Fridays

Biceps and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	3	4 to 6
Alternate Dumbbell Curls	2	4 to 6
Lying Tricep Press	2	4 to 6
Seated Overhead Tricep Press (Performed with a dumbbell)	2	4 to 6
Tricep Press Downs	1	4 to 6

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Week 9

Recuperation Week - No Training

This week is a well deserved rest week. By now you have hammered your muscles for 8 solid weeks. They need this time to fully recover and grow.

After this week of rest and recuperation you'll find yourself noticeably stronger and more motivated to train. This week is essential for proper mental and physical recovery.

Do not train at all this week. This is a Max-OT Cyclical Recuperation week. It's critical for full recuperation and maximum muscle growth response.

You should still eat well, but don't be afraid to indulge a bit. Just don't go overboard. Use the extra time you have to reflect on the past 8 weeks and plan and visualize the coming 8 weeks. Make note of your improvements and gains and build a strategy of making your workouts even better, more productive, and more intense.

Weeks 10 - 13

Mondays

Shoulders and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Standing Dumbbell Press	3	4 to 6
Barbell Military Press	2	4 to 6
Dumbbell Side Laterals	2	4 to 6
Tricep Press Downs	3	4 to 6
Lying Tricep Extensions	2	4 to 6
Seated Tricep Extensions	1	4 to 6

Max-OT Tip: When doing Tricep Press Downs make sure you bring your forearms about 45 degrees past parallel to the ground. This allows for full stretch of the triceps during overload.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Weeks 10 - 13

Tuesdays

Legs and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Standing Calve Raise	3	6 to 8
Hack Machine Calf Raises	2	6 to 8
Squats	4	4 to 6
Leg Presses	2	4 to 6
Stiff Leg Dead Lifts	3	4 to 6

Max-OT Tip: When squatting make sure you go down until your quads are parallel to the floor. Less than this produces much less overload and significantly less results.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Back and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Lat Pull-Downs	3	4 to 6
Close Grip Pull Downs (using a V-Bar)	2	4 to 6
Cable Rows	2	4 to 6
Dumbbell Rows	1	4 to 6
Leg Lifts (Weighted)	2	10 to 12
Cable Crunches	2	6 to 8

Max-OT Tip: On all row movements pull the bar to the very lower portion of your rib cage. This places greater overload on the lats and away from the shoulders.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Chest and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Incline Dumbbell Bench Press (Palms facing in at bottom of the movement and rotated forward at the top.)	3	4 to 6
Dumbbell Bench Press	2	4 to 6
Decline Dumbbell Bench Press	2	4 to 6
Barbell Shrugs	2	4 to 6
Dumbbell Shrugs	2	4 to 6

Max-OT Tip: When doing Incline Dumbbell Bench Press, as you lower the weight rotate your palms inward. As you raise the weight rotate your palms outward so they are facing forward at the top of the movement.

Dumbbells permit for an increased range of motion. Make sure you stretch fully at the bottom of each rep.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Fridays

Biceps and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	2	4 to 6
Dumbbell Hammer Curls	2	4 to 6
Curl Bar Curls	2	4 to 6
Leg Lifts (with added weight)	2	10 to 12
Weighted Cable Crunches	2	8 to 10

Max-OT Tip: Curl Bar Curls put more stress on the outer biceps due to the angle it places your wrists in. This tends to increase bicep thickness.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Weeks 14 - 17

Mondays

Biceps, Forearms, and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Alternate Dumbbell Curls	2	4 to 6
Straight Bar Curls	2	4 to 6
Curl Bar Curls	1	4 to 6
Wrist Curls	3	4 to 6
Crunches (Weighted)	2	10 to 12
Weighted Cable Crunches	2	6 to 8

Max-OT Tip: During all curl movements make sure you fully extend your arm at the bottom of each rep.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesdays

Shoulders and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Seated Calve Raises	3	6 to 8
Standing Calve Raises	2	6 to 8
Straight Bar Millitary Press	3	4 to 6
Dumbbell Side Laterals	2	4 to 6
Bent Over Side Laterals	2	4 to 6

Max-OT Tip: Training calves at the begining of your workout allow you to prioritise your intensity to this muscle group and does little to deminish the intensity used to train other muscle groups.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Legs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	3	4 to 6
45° Leg Press	2	4 to 6
Leg Curls	2	4 to 6
Stiff Leg Dead Lifts	2	4 to 6

Max-OT Tip: Many people train legs using continuously different foot positions. It's not necessary to do this as the net effect is insignificant and the varying position usually limit your ability for maximum overload.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Back and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Seated Cable Rows	3	4 to 6
Bent Over Barbell Rows	2	4 to 6
Lat Pull Downs	2	4 to 6
Barbell Shrugs	3	4 to 6

Max-OT Tip: Shrugs for traps should be performed in a straight up and down motion. Never rotate your shoulders as this will invite injury.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Fridays

Chest and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Incline Barbell Bench Press (25° Incline)	3	4 to 6
Dumbbell Bench Press	3	4 to 6
Weighted Dips	1	4 to 6
Leg Lifts (with added weight)	2	12 to 15
Weighted Cable Crunches	2	8 to 10

Max-OT Tip: Weighted Dips is an excellent overall chest movement. Make sure you emphasise the "dip" by moving up and down in a quarter circle motion. Do not dip straight up and down as this stress the triceps more than the chest.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Week 18

Recuperation Week - No Training

Another 8 weeks and now it's time to rest. Max-OT not only provides the optimum overload needed for muscle growth, it also is structured to encourage maximum intensity while you train. The sets are brief. The workouts are brief. The recovery is optimum. And what I have laid out in this 6 month "Road Map" gives you a specific, step by step guide to maximize growth through the optimum use of overload, intensity and recuperation.

Each training rotation flows into the next. Two Max-OT training rotations requires recuperation. That's what this week is for. Rest, relax, and plan for the next 8 weeks.

Max-OT Cyclical Recuperation

As I've said in the past this week's recuperation period after 8 weeks of Max-OT training is just as important as the training itself. A big mistake is to not take this week off. Your muscles need it and your mind needs it. During this week you will be adding muscle mass through the long term recuperation process.

Remember, you don't grow in the gym, you grow during recuperation and this Max-OT Cyclical Recuperation period is required to maximize muscle growth.

Weeks 19 - 22

Mondays

Back and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Lat Pull Downs	2	4 to 6
Close Grip Pull Downs (V-Bar)	2	4 to 6
T-Bar Rows	1	4 to 6
Dead Lifts	2	4 to 6
Dumbbell Shrugs	2	4 to 6

Max-OT Tip: When doing Close Grip Pull Downs keep your elbows in, arch your back, and stick your chest out. Make sure you heavily emphasize the stretch at the top of the movement.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesdays

Chest and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Barbell Bench Press	3	4 to 6
Incline Dumbbell Bench Press	3	4 to 6
Weighted Dips	1	4 to 6
Standing Calf Raises	2	6 to 8
Seated Calf Raises	2	6 to 8

Max-OT Tip: When doing Standing Calf Raises make sure to keep your hips in line with your torso. Do not rock your hips on the way down as this drastically reduces the overload to your calves.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Biceps and Triceps†

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	2	4 to 6
Tricep Press Downs	2	4 to 6
Alternate Dumbbell Curls	2	4 to 6
Lying Tricep Presses	2	4 to 6
Dumbbell Hammer Curls	2	4 to 6
Cable Tricep Press Downs (Behind the Back)	2	4 to 6

†This arm routine is a little different and it's very effective. You will alternate between a bicep exercise and a tricep exercise. These are not supersets. You rest between each set.

Max-OT Tip: When doing curls never cross the vertical plane with your forearms at the top of the movement. This removes the stress from the biceps muscle. Stop just before reaching the vertical plane to keep the overload continuous.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Legs and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Squats	4	4 to 6
Stiff Leg Dead Lift	2	4 to 6
Leg Curls	2	4 to 6
Leg Lifts (Weighted)	2	4 to 6
Incline Crunches (Weighted)	2	4 to 6

Max-OT Tip: To maximize the effectiveness of Stiff Leg Dead Lifts on the hamstrings, do not lock out the movement at the top. Also take a wide grip to get the maximum stretch.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Fridays

Shoulders and Forearms

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Military Press	3	4 to 6
Seated Dumbbell Press	2	4 to 6
Dumbbell Side Laterals	2	4 to 6
Wrist Curls	2	6 to 8
Standing Dumbbell Wrist Curls	2	6 to 8

Max-OT Tip: When performing the Seated Dumbbell Press turn your palms inward on the way down to maximize the range of motion. These can also be performed standing.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Weeks 23 - 26

Mondays

Chest and Abs

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Incline Dumbbell Bench Press	3	4 to 6
Dumbbell Bench Press	2	4 to 6
Decline Barbell Bench Press	2	4 to 6
Leg Raises (weighted)	2	10 to 12
Weighted Cable Crunch	2	6 to 8

Max-OT Tip: You can get heavy dumbbells easily into place during the Incline Dumbbell Bench Press by placing the dumbbells on your thighs and lifting the dumbbell into place with your leg. It takes a little practice, but once you master it it's easier to do it alone than with help.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Tuesdays

Biceps and Forearms

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Straight Bar Curls	2	4 to 6
Alternate Dumbbell Curls	2	4 to 6
Straight Bar Cable Curls	1	4 to 6
Wrist Curls	3	10 to 12

Max-OT Tip: When doing Alternate Dumbbell Curls supinate your wrist on the upward portion of the movement, but keep your palms facing up on the downward portion.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Wednesdays

Legs and Calves

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
45° Calf Raise	2	6 to 8
Hack Machine Calf Raise	2	6 to 8
Seated Calf Raise	1	6 to 8
Squats	3	4 to 6
45° Leg Press	2	4 to 6
Stiff Leg Dead Lifts	2	4 to 6
Leg Curls	1	4 to 6

Max-OT Tip: When doing the 45 Degree Leg Press keep your knees apart at the bottom of the movement to increase your range of motion. Also, do not bounce your thighs off your chest. Finally, do not lock your knees out at the top of each rep. Stop just before they lock out.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Thursdays

Shoulders and Triceps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Dumbbell Press (Palms facing in at bottom of the movement and rotated forward at the top.)	3	4 to 6
Straight Bar Military Press (In front)	2	4 to 6
Dumbbell Side Laterals	2	4 to 6
Lying Tricep Press	3	4 to 6
Tricep Cable Press Downs	2	4 to 6
Seated Overhead Tricep Press (Performed with one dumbbell behind the neck)	1	4 to 6

Max-OT Tip: A technique that works exceptionally well when doing Dumbbell Side Laterals is a kind of "superset" at the end of each set. When completing a set of side laterals stand up straight with your shoulders back. With your elbows just slightly bent raise each dumbbell directly out to the side about 45 degrees. Do this until failure.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Weeks 23 - 26

Fridays

Back and Traps

The sets listed in the workout below do not include warm-up sets.

<u>Exercise</u>	<u>Sets</u>	<u>Reps</u> *
Pull-Ups (Weighted if necessary)	2	4 to 6
Seated Cable Rows	2	4 to 6
Lat Pull Downs	2	4 to 6
Bent Over Barbell Rows	2	4 to 6
Barbell Shrugs	3	4 to 6

Max-OT Tip: When doing Pull-ups or Pull-downs use a grip that's 4 to 6 inches wider than shoulder width. Do not take a grip wider than this as it places too much stress on the shoulder joint and lessens the overload to the upper back muscles. Never grip a bar that is angled on the ends past the bend. This is an improper design and should never be used.

* Remember, the weight you use should be light enough to do four reps, but heavy enough so you can't do more than 6 reps. Each set should be done to positive failure.

Max-OT Training Course

Conclusion

Well there you have it. A 6 month plan for adding maximum muscle size and strength the Max-OT way. It's efficient and it's very effective. You spend less time in the gym and more time growing. It's the only way to train.

Let me emphasize that there are many different ways to train. And these many different training programs can and will produce muscle growth. With this said, there is only one "best and most effective" way to train and that's Max-OT. If you are not training Max-OT then you are not gaining the strength and muscle size that you could be gaining. It's as simple as that.

We all want to build the most amount of muscle and strength in the least amount of time. I don't know any one that trains that isn't looking for a way to reach their training goals the fastest way possible. Max-OT is the way to maximum muscle mass. It uses the physiology and bio-mechanics of the human body the way they are meant to be used to work with the very movements and structure of your muscles to enhance growth at the fastest rate possible.

I urge you to read and reread the program. I further urge you to master the skills and techniques to take full advantage of the effects Max-OT has to offer. As time goes by you'll train with the Max-OT philosophy as though it is second nature. You'll be stronger with more muscle than you could have ever realized. But there is one thing that I can't provide and that's the effort, the drive, the intensity and the determination. You have to supply these key ingredients. The more focused you can channel these elements the more results you'll get from Max-OT.

The popularity of this program is spreading like wild fire for one simple reason - it produces muscle and strength increases faster than any other type of training there is. And it does this in less time and with more certainty. That's Max-OT. That's Maximum Overload Training.

Thanks to each and every one of you spending this time with me. Over the coming months the Max-OT program will be refined and updated. Photos will be added and the [Max-OT Q&A](#) will grow to answer all the questions presented to me over the last few months. Max-OT will also be available in a printable format for download in the near future to all those that participated in this course. You will be notified when this is completed.

I will also be posting new articles every few weeks covering new Max-OT techniques and detailing ways you can get most out of this phenomenal training program.