

**SERIOUS GROWTH® III**

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**BIG**

**BEYOND**

**BELIEF**

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**THE MOST EFFECTIVE MUSCLE PRODUCING  
PROGRAM  
EVER!**

**BY**

**LEO COSTA & DR. R. L. HORINE**





# TABLE OF CONTENTS

<b>DEDICATION</b> .....	<b>5</b>
<b>INTRODUCTION</b> .....	<b>7</b>
<b>The Training Model: A New Road Map</b>	
<b>CHAPTER 1</b> .....	<b>13</b>
<b>Basic Principles Of Training</b>	
<b>CHAPTER 2</b> .....	<b>19</b>
<b>Training Stress Factors</b>	
<b>CHAPTER 3</b> .....	<b>33</b>
<b>Constructing The Optimal Training Model</b>	
<b>CHAPTER 4</b> .....	<b>43</b>
<b>Exercise Selection</b>	
<b>CHAPTER 5</b> .....	<b>49</b>
<b>The Workout: Level One, Two and Three Training</b>	
<b>The Workout Charts</b> .....	<b>53-96</b>
<b>CHAPTER 6</b> .....	<b>97</b>
<b>Advanced Techniques</b>	
<b>CHAPTER 7</b> .....	<b>103</b>
<b>Recovery</b>	
<b>CHAPTER 8</b> .....	<b>109</b>
<b>Nutrition</b>	
<b>CHAPTER 9</b> .....	<b>119</b>
<b>Performance Supplementation</b>	
<b>CHAPTER 10</b> .....	<b>127</b>
<b>Monitoring Your Progress</b>	
<b>CONCLUSION</b> .....	<b>133</b>
<b>ADDENDUM</b> .....	<b>135</b>
<b>How to Gain 4 Pounds of Muscle in 10 Days</b>	



Daniel J. Boorstin, a well known historian and author, successfully argues that the first true pioneer of systematic modern exploration was Prince Henry The Navigator of Portugal. In the early 1400s under the leadership of Prince Henry, Portugal began a systematic exploration of unknown lands. This was accomplished by repeatedly sending out explorers. Each one venturing farther than the one before, then returned to report their findings to the mapmakers. These mapmakers then gradually constructed more accurate maps and built a foundation that allowed the explorers to venture still farther. This was the first organized cooperation between mapmaker and explorer.

This book could never have been written if not for the unreasonable efforts of early explorers and mapmakers in bodybuilding. This book is dedicated to these early pioneers.

*Vince Gironda*

*Bill Pearl*

*John Grimek*

*Arnold Swarzenegger (of course)*

And the current pioneers:

*Dr. Mauro Di Pasquale*

*Angel Spassov*

*Yuri Verishonski*

*Ivan Ivanov*

Also:

*A special thanks to Joe Weider for his untiring efforts  
to increase the awareness of bodybuilding around the world.*



# INTRODUCTION

## THE TRAINING MODEL: A NEW ROAD MAP

In the beginning, there was the *training routine*. A friend, trainer, or maybe just somebody you happened to meet in a gym told you, “This is the way I do it,” and you figured, hey, why not give it a try?

It was a lot like stopping some guy on a street corner and asking him how to get to New York City. He would give you the directions on how he got there, but you did not know if these were the best directions. You just figured if you followed them, you would get there someday. Unfortunately, a lot of people got lost on the way.

In the late 1980s, Optimum Training Systems perfected the first *training strategy* for the bodybuilder. As members of the first group of Americans ever invited behind the Iron Curtain to view Eastern Bloc training techniques, our eyes were opened to a whole new weight training approach by the Bulgarian Olympic weightlifting team.

Body chemistry was tracked 24-hours-a-day by sports researchers in Bulgaria. Athletes were treated like the *Bionic Man* with wires and monitoring devices attached to them throughout the day—even when they were sleeping! The Bulgarians were relentless in their pursuit of excellence. Any training method which showed even the slightest promise was studied in fine detail. And, as always, all that hard work paid off. The Bulgarians developed the most sophisticated and effective weight training program in the world.

When we put together Bulgarian expertise with what we already knew, the results were amazing. Our OTS *Bulgarian Power Burst System* and *Serious Growth* training manuals changed the whole nature of bodybuilding. No longer was the traveler to New York stuck with the guy on the street corner as a guide. Thanks to OTS, he now had someone who had done the research to find several different ways to get to New York.

He had more than just directions. He had a *strategy*, one that went far beyond mere routines. A *strategy* to give the bodybuilder the *big picture* of *all* the factors, both inside the gym and out, involved in getting him the body he wants.

But it still was not enough. OTS began with a promise to remain committed to developing the most effective, innovative approach to training available in the world. We were not going to stop just because we had created something more effective than the other guys. We wanted to take our program to the highest level.

That is why we are now taking bodybuilding into a new era with our new *Training Model*. We were not content with a strategy or several options for getting to New York. We wanted to hand you the whole map of the United States to give you *all the options*. We wanted to put *you* in control of your bodybuilding destiny.

With this new OTS Training Model you are the boss. If there is bad weather up ahead you will be able to choose an alternate route because all the roads have been charted. With the whole map available for the first time, you will be able to decide what is the best route for *you*.

*Serious Growth III: Big Beyond Belief* puts you in the driver seat. Once you understand the Training Model you will no longer be at the mercy and whims of every pseudo expert or half-baked program that comes out. You will be able to authoritatively say, “This is good” or “This is bull” without the confusion that so often plagues bodybuilders in their quest for serious growth.

In the process, many of those questions bodybuilders have been asking for years without a response will be answered. Why do you plateau? Why do highly conditioned bodybuilders seem to stagnate over time? Why does growth always seem to slow down? The answers to these and many other training mysteries will be answered in the pages that follow.

We will also give you the basics on how you can learn instinctive training, not the train by emotion trap but the real thing. Feeling down physically or mentally on a given day should not be a cue for cutting back on your training. Indeed, that day could be the day when you should be going all-out to reach your full growth potential. Real instinctive training comes from knowing your body and developing true physical intuition.

To this point, few people have been capable of instinctive training. You will, of course, find your occasional Platz or Schwarzenegger, the guys who can do it naturally. But the truth is that these instinctual, *motor skill geniuses* are more rare in the general population than mental geniuses.

Now, with the help of our Training Model and your own hard work and dedication, you will be able to learn how to perfect your own approach to *instinctive* training. We will be taking you to a whole new level where the bodybuilder can create his or her own program rather than relying on a routine or system. You will be able to cut through all the confusion and false claims to get the body you want.

## **LEO COSTA, JR.**

Like Tom, Leo is a pioneer in American bodybuilding. He had already established a solid reputation in the field when he was invited to Bulgaria as a guest of the Bulgarian Weightlifting Federation. As one of the first Americans allowed behind the Iron Curtain to learn first-hand the weight training secrets of the East Europeans, he had his mind opened to a whole new approach to the field.

In subsequent visits with the Bulgarians, Russians, East Germans and others, he was able to incorporate East European technique with the traditional American approach. Doing so he forged an entirely unique, stunningly successful





approach to weight training. As a personal trainer he has gained amazing results for professional athletes, screen actors, corporate executives, students, and people from all walks of life.

His successes helped build Optimum Training Systems, the yardstick for innovative training programs and products in the field. He has devoted himself to bodybuilding like few others over the last twenty years, and his name has become synonymous with weight training expertise and excellence. His gym and research facility in Visalia have become a Mecca for bodybuilders dedicated to Serious Growth. He continuously sets new standards for physical training.

## **DR. R. L. HORINE**

After his sessions with the Bulgarians, Russians and East Germans, Leo knew he had need of a top-flight researcher to put what he had learned into a cohesive training strategy. He needed someone who had mastered the elements of sports-specific training, bioenergetics, physiology, phasic training, and all the other aspects of putting together a successful training program. He also needed someone with an open mind and extensive knowledge of contemporary training techniques who could keep up with the East Europeans.

That is when he put out the call for R. L. Horine. Dr. Horine had the ability to take the extensive, complex techniques and research Leo had been introduced to and boil it down to a practical level. His work was a big factor in sending OTS over the top and making it a name in the bodybuilding world. With Leo, he authored the ground-breaking *Bulgarian Power Burst System* and *Serious Growth* training manuals that took the field by storm in the late 1980s. Dr. Horine remains one of the respected minds on the cutting edge of world training research and application.



## **THE BIG PICTURE**

What you now hold in your hands represents the state-of-the-art in bodybuilding. It is the perfect marriage of research, experience and wisdom.

It is not quantum physics, though. In fact, let us start out by dealing with the myth perpetrated by some that bodybuilding is a complex, brain-busting process with secrets beyond the grasp of most mere mortals. People try to overcomplicate bodybuilding but, bottom line, there are only so many variables involved.

We will not try to confuse you with a lot of smoke and mirrors. Instead we will bring you right up to date with physical training research and most importantly, what is working for bodybuilders training *on the edge* and getting great results. We also want you to understand the “why” behind our model’s effectiveness. To achieve bodybuilding superiority and graduate to advanced

instinctive training, you have to understand how the body works and what gets results.

We will start the manual with the basics of muscle growth by describing the principles of *stress* and *adaptation* and how they are made to work for the bodybuilder. We will also talk about the Bulgarian “*Body Becomes Its Function*” credo, and how targeting stress is essential to getting the growth you want.

Then we will talk about *recovery*. Be ready to be knocked over if you have been listening to the overtraining gurus out there lately. Chances are you have been cheating yourself out of growth you could have made. We will tell you *why* and *how* you can work harder and make progress you may have only dreamed of.

Then we will take the guesswork out of *hypertrophy* (muscle growth) by zeroing in on *training stress factors* and how you can best work with these factors to pack on the most muscle. Again, you may be amazed by some of the things we tell you.

We will show you why those 90-minute workouts are a waste of time and how our 45-minute session optimizes recovery and muscle growth. We will tell you how you can train a body part on a daily basis and why those super-slow-repetition proponents are super-wrong.

We will spend time explaining the real meaning of volume and intensity and how they work together in a superior weight training program. And let us clear up any misconceptions that bodybuilding is a *performance sport* and that you should train for it the same way you would football or competitive lifting. To succeed, bodybuilders have to train systematically, adjusting both volume and intensity as needed for maximum growth.

The importance of proper rest periods between sets is often ignored by many bodybuilders. Because of this, we will be discussing how rest periods affect the energy systems available to the body and how they can best be used in a comprehensive weight Training Model. We will also cover the Soviet findings on *micro-periodization* that we use in our model to maximize stress and make optimum use of the body's energy systems.

The principles of *hyperacceleration* and *hyperadaptation* lay at the heart of our Training Model, and we will give you the basics behind them so you know just how and why they work. You may have stumbled on them already in your weight training and gotten results without even realizing it, but unless you know how to properly stimulate muscle and allow for the process of hyperadaptation, you will be limiting much of your potential.

The structure of our Training Model rests on a unique, new approach to *training stress zones*. We will be telling you how to stay in the *Optimum Training Zone* where the Serious Growth really is. We will also be looking at some common mistakes bodybuilders make that lock the door to the Optimum Training Zone. We will show you how to open that door and keep it open.

We will present a new approach to exercise selection that we will be presenting in this manual for the very first time. This *Neuro Muscular Activation* (NMA) rating system stresses the importance of compound over-isolation exercises and free-weight dominance over machines. It provides the first practical approach to exercise choice.

We also have advanced techniques the serious bodybuilder can use to extend sets and some good advice on how they can best be used. The *Jump Set*, a great method of structuring your sets so you can keep intensity high without losing training volume, is also introduced.

Of course, the workout section of this manual is exhaustive. We will give you in-depth charts for training and provide the keys behind success in our *Level One* and *Level Two* training programs. We will tell you how to use *ramps* and *mini-ramps* and the principles of *hyperacceleration* and *hyperadaptation* to get phenomenal growth. We will provide you with tips from the pros on technique, training partners, gyms and other important topics.

As we have mentioned, the overtraining myth bodybuilders have been fed in recent years has really taken a toll. In our in-depth chapter on recovery strategies we will be focusing on what constitutes real, chronic overtraining. You will also see the importance of restoration and relaxation, and be given several excellent suggestions for maximizing recovery capabilities and getting Big Beyond Belief.

Nutrition is essential to Serious Growth, and we will cut through the confusion and show you that there are only two diets that work for the bodybuilder. The first is a traditional *lowfat* diet stressing high-quality foods and eating enough to make them work for you. The second is an amazing new *high-fat/low-carbohydrate* diet that has been described as the ultimate bodybuilder's diet by those who have tried it. Compiled by Dr. Mauro Di Pasquale, the diet takes the approach that fat is not the enemy many bodybuilders make it out to be, and it has been getting plenty of attention lately.

Performance supplementation remains a mystery to many bodybuilders, and in fact, it is easy to see why, with all the marketing and manufacturing gimmicks the supplement industry uses. Our chapter on performance supplementation will show you how to separate truth from fiction and will give you a leg-up in getting that 10'20% extra growth a good performance supplement can provide.

Finally, we will provide you with methods for measuring growth and monitoring your progress so you will not be at the mercy of your own emotions in tracking your development.

## **IT WILL NOT BE EASY**

The in-depth, no-nonsense Training Model we have provided you with in *Big Beyond Belief* is the best there is, but do not think you will be getting off easy. We cannot do the work for you, and the fact is that you are going to have to work hard to reap the ultimate benefits. To get outrageously big you have to train *on the edge*. We will get you maximum growth but there are no shortcuts or excuses.

## **THE MYTH OF THE "HARDGAINER"**

Let us deal with the *hardgainer* fantasy. In every bodybuilding magazine today you will read articles about the hardgainer, the guy who has a hard time putting on muscle because he has a genetic liability. All this hardgainer talk is merely a scam to get you to buy somebody's product.

The fact is that maybe one guy in 500 has the genetics to put muscle on easily. The rest of us have to work for our growth. The body does not want to put on muscle. It is an exhaustive physiological process, and 99% of us are hardgainers. It takes work, good diet, discipline, knowledge and a strong, health-conscious attitude to build muscle.

Genetics are just a cop-out. When you look at Tom Platz or Arnold, neither had what would be called “great genetics”, but they went on to be all-time greats. Forget the *hardgainer* whining and those *hard-gainer* programs too.

## **BE UNREASONABLE**

If you want to get Big Beyond Belief you are going to have to work for it. We are not going to mislead you. We will be asking a lot . In fact, you may think we are being a bit unreasonable. Hey, you may even think we are being a lot unreasonable. If so, we refer you to the great writer and philosopher George Bernard Shaw who once wrote,

*“Reasonable men adapt themselves to the world, unreasonable men attempt to adapt the world to themselves. That is why all progress depends on unreasonable men.”*

What follows may seem unreasonable, but it works. There is method in all the madness. It is a marriage of the best of both science and practice. In the end, you are the boss, not some trainer or gym rat.

After all, why conform to their limited routines and expectations when you can shape the world in your own image?

Let’s go to work!



Bob Pierce

Operations Manager  
Strength and Conditioning Technologies, Inc.

## BASIC PRINCIPLES OF TRAINING

To understand the Training Model presented in *Big Beyond Belief* you have to throw away some of those antique notions that bodybuilders have desperately clung to over the years.

### COMMON MYTHS

1. High-intensity training produces the greatest gains.
2. Constantly changing routines haphazardly or adhering to the *muscle confusion* theory maximizes gains.
3. The average workout should last 90 minutes or more.
4. You should only train a body part twice a week for growth.
5. You should only train a body part three times per week for definition.
6. It takes 72 hours for a muscle to recover from a workout.
7. Instinctive training means doing what feels good to you all the time.
8. Overtraining is the chief problem of today's bodybuilder.

Fortunately, muscles cannot see, hear, read or think. They are not restricted by all the myths and, if you are willing to go against the grain and do the right thing, they can grow far beyond your expectations.

To do this, you have to train *hard* and *smart*. Training hard involves commitment. Training smart requires becoming a student of the principles of muscle growth. To do this and begin to understand our Training Model you have to come to grips with the processes of adaptation, stress, homeostasis, and recovery.

### ADAPTATION

All animal life, humans included, are provided with an array of survival tools. Many of those tools occur naturally in the body, without conscious thought, as a way of responding to changes in the environment. They are inborn. Dogs and cats, for instance, respond to seasonal temperature changes by growing or shedding hair to protect themselves from extremes of heat and cold.

Likewise, when a person moves to the mountains he may find himself short of breath for a while. Soon, however, his body responds to the lower oxygen content of the air found at high altitudes by creating more oxygen-carrying red blood cells. He gets acclimated to the altitude and stops huffing and puffing.

This ability to make changes in response to the environment is called *adaptation* and is the key to survival. When life becomes stressful, taxing, or hazardous, an animal must have an effec-

tive way of dealing with it. If the stress is severe enough and it cannot adapt, it dies. Scientists suspect that just such a thing occurred 65 million years ago when the earth's climate cooled and dinosaurs could not respond effectively to the change.

## **STRESS**

Not all stress is life-threatening, of course. Some stress does little more than make us uncomfortable. But the human body, along with wanting to survive, also wants to be comfortable. It seeks to avoid pain and strain. If an event occurs that makes it uncomfortable, it will work hard to adapt itself so the amount of stress it experiences is within a nice, normal, comfortable range.

For example, when a person first begins a job calling for heavy manual labor, say in construction, he may find his hands beginning to blister in response to the stress caused by wielding the necessary tools. This blister would be the result of too much stress (friction) being applied to skin. In this case, the body was unable to effectively adapt and therefore it caused damage.

If the same person were gradually introduced to this level of work/stress by working an hour or so a day at the beginning and building up as time progressed, he could build up a callus before blistering. This would be an example of *effective adaptation*.

## **ADAPTATION AND MUSCLE GROWTH**

Weight training is little more than deliberate stress. When you lift weights on a regular basis you create a stressful environment for the muscles so they will adapt to the specific requirements of your workout by growing in size and strength. Your body wants to be comfortable. Muscle grows so the body will be able to withstand the added stress of the workout and be more comfortable with the situation.

**Basically, for the purposes of this manual, when we are talking about *recovery* or *adaptation* we are really talking about *muscle growth*.**

## **THE BODY BECOMES ITS FUNCTION**

While the knowledge that *stress* is necessary for muscle growth is important, it is equally important to know what kind of and how much stress you should be using to get the results you want.

We learned a great deal from the Bulgarians, but nothing was more important than coming to an understanding of the basic guiding Bulgarian principle: "The body becomes its function." This idea is the soul of efficiency and practicality. Everything the Bulgarian weight lifters do in training comes back to this principle and, not surprisingly, this is also the basic principle under which our Training Model is devised.

Progressive research uncovers the effective methods to manipulate the stress. The human body has a great, but limited, ability to adapt to any stress it receives. The adaptation is specific to the original stress. The body never adapts to stress in a general way. The body adapts specifically to

each individual stress applied.

In the previous example, the construction worker developed calluses. These calluses were a specific response and were only created in the specific contact points on the hand. The skin on the entire hand does not thicken. Again, only the specific contact points experience adaptation.

This illustrates the Bulgarian credo that “The Body Becomes Its Function.” You must apply a specific stress to gain a specific result.

For example, it is our contention that a football lineman should, in practice, never run more than 7’10 yards. The conditioning of running 40-yard sprints would not train a lineman specifically to the responsibility of his position. Running 7’10 yards would be more specific to his position and would also align with the principle of “The Body Becomes Its Function.”

It is interesting to note that the Bulgarians believe in their “Body Becomes Its Function” credo to the degree that they break one of the cardinal rules for weight training by not even warming up before going through a workout. Doing a warm-up set provides only a low level of stress to the muscles, and the Bulgarians do not want their athletes subjected to any level of stress other than that resembling an Olympic lifting competition.

At the 1990 Goodwill Games we watched Stephen Botev, a top Bulgarian lifter, walk up to 595 pounds straight out of the locker room and do a full Olympic squat without warming up. The next day he took the Gold Medal. He can do this because his body is so finely tuned and conditioned to this kind of powerful, explosive form of stress.

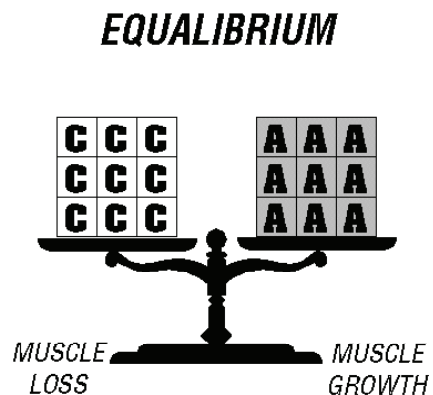
In much the same way, you must organize your time in the gym efficiently so it gets you the specific results you want. We have a limited amount of adaptive energies available to us at any time. As the Bulgarians pointed out, it is best to focus all those adaptive energies on the results we most strongly desire in our training.

## HOMEOSTASIS

You will hear the terms *anabolic* and *catabolic* thrown around in some gyms and may be confused by them. At its simplest, *anabolic* activity can be defined as those things you do to build muscle. *Catabolic* activity involves those things the body does to break muscle down.

People who do not lift weights or are not involved in trying to build muscle tissue exist in a balanced state called *homeostasis*. They are balanced between anabolic and catabolic activity and thus neither build nor lose muscle.

While it is normal for the average Joe to be in homeostasis, this is not a good place for the





bodybuilder. Through weight training he tries to increase anabolic activity and decrease catabolic activity. He is trying to create an *imbalance* between *muscle building* and *muscle breakdown* activities so he can foster growth. If there is balance between the two he is not going to grow at all.

With this in mind, some may think that the optimum situation for the bodybuilder would be to stay in the gym all day and workout from sunrise to sunset. But this is wrong. Recall, we have limited adaptive energies. Once you use this up and the stress exceeds the amount the body can withstand, you are asking for trouble. That is why recovery is such an important concept for the bodybuilder.

## RECOVERY

The way the body adapts to overcome stress and achieve a state where it will be more comfortable and successful handling the stress in the future is called *recovery*. Remember, in the context of this program, recovery is muscle growth.

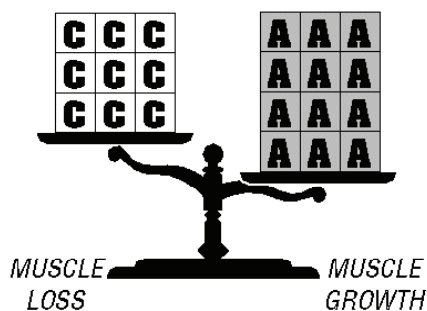
Through weight training, our muscles adapt by growing larger and stronger as a way of handling the stress. Muscle growth does not occur during the workout, however. During the workout, you are taxing your muscles so they will get the message: “Get bigger and stronger (adapt) so you will be able to handle the stress of your next workout.” Muscle growth actually occurs after your workout is completed.

Keep in mind, too, that *recovery* is a relative term. As you progress in your training you will find your adaptive energy increasing as a result of the regular stress your body will receive. Recovery will come faster and you will find yourself being able to accept increasing levels of stress. Later in this manual we will discuss, in-depth, some practices you can build into your training and daily life to help you maximize recovery.

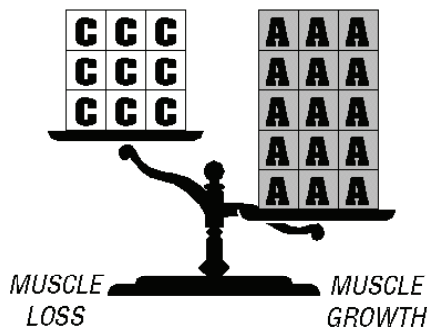
## OVERTRAINING

Overtraining occurs when your body is stressed beyond its ability to recover. If this occurs on a continual basis you will find muscle growth halted. You can even lose some of the growth you previously experienced. At its most severe, overtraining can set you up for injury and illness. Needless to say, for the bodybuilder with the proper devotion to training, overtraining

## CONVENTIONAL TRAINING



## OTS TRAINING STRATEGY





can be a serious concern.

Unfortunately, back in the 1980s *overtraining* was *overdone*. It became a rallying cry for a lot of misled bodybuilders. Some bodybuilding gurus began claiming that everyone was overtraining and urged them to cut back on volume. Sure enough, when they cut back they experienced big gains for a short while, but the growth did not last. More on this later.

The fact is that *chronic overtraining* can be destructive to your progress and health while *acute* overtraining, or short term overtraining, can be used to your benefit. We will show you how to use these temporary periods of overtraining to your advantage later in this manual.



# TRAINING STRESS FACTORS

Bottom line, our purpose in weight training is to intentionally apply stress to muscle (stimulus) for the purpose of creating a positive physiological response (muscle growth). This *training stress* consists of eight factors which can be manipulated to increase overall stress and resulting muscle growth.

Many people think of weight training as merely hoisting weights. They think that by gradually increasing the amount of weight they lift they will automatically achieve the growth they are looking for. It is not that simple. Just because you lift more weight week after week does not mean you are going to get bigger and bigger.

There are only eight stress factors involved in a workout. In order to gain maximum size and strength, all eight factors must be applied correctly. Merely increasing the weight progressively is only altering one of the eight stress factors. Focusing on this simple task creates a hazardous neglect of the other seven equally important factors.



Knowing how to properly manipulate each one of these factors is fundamental to your success in weight training. As in most endeavors in life, losing sight of these fundamentals is sure to sentence you to frustration and failure. So pay close attention to the next section of this manual. Learning what these training stress factors are and how to use them is absolutely necessary to achieve rapid bodybuilding success.

## FACTOR #1 TRAINING SESSION LENGTH

Many people have come to believe that the longer the workout lasts, the better it is. We are here to say this is bull. Those two-hour workouts many people insist on are largely a waste of time.

During the exhaustive research performed by the Bulgarians they decided to take blood samples from their athletes several times a day—most importantly before, during and im-



mediately after their workouts. The Bulgarians found from these blood samples that after 35'45 minutes of rigorous weight training the body's natural blood testosterone level would decrease by up to 80%.

That is not good news for a bodybuilder.

What this means is that after 45 minutes of training your desire and motivation may remain high but you have depleted one of the body's most important substances for recovery: testosterone. By reducing your body's ability to recover you have also reduced your body's ability to grow. Remember, when you are recovering you are growing. When you are not recovering, you are not growing. By training past the 45-minute marker you will not be getting the growth you should be getting from the amount of work you are putting in.

Limiting workouts to 35'45 minutes also helps the body process blood glucose (sugar) effectively and aid energy production in the muscle cells. This will help insure optimal performance throughout the workout.

The advantages of 35'45 minute workouts do not stop there. The quicker recovery provided by shorter workouts also allows the bodybuilder to hit the gym more often, thus expanding his opportunity for growth even further.

And let us not forget the psychological benefits of limiting training session length and the improved mental focus you achieve in a workout. Erasing the prospect of a tedious, mind-numbing two-hour workout allows you to enter the gym with a positive attitude ready to devote all your attention and effort to the task at hand.

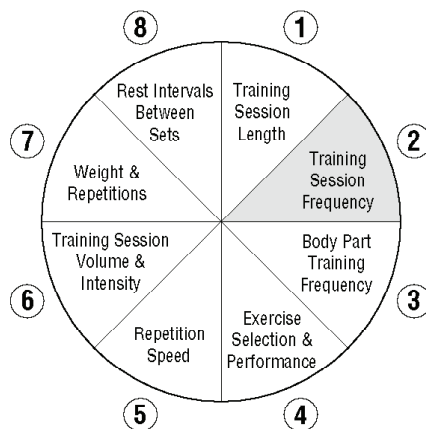
## FACTOR #2 TRAINING SESSION FREQUENCY

Research in the Eastern Bloc also showed that as long as you keep your workouts at the 35'45 minute level and exercise proper nutrition, a person can recover from a workout in two hours. We are not recommending this, but the Bulgarians trained six-times-a-day without complications!

Keep in mind that effective training reverts back to your beliefs and mindset. If you have been warned by the misguided experts out there that overtraining is rampant in the bodybuilding community, chances are you are going to believe it and cut back on your training.

Overtraining can actually be used to your advantage. The real problem with most bodybuilders these days is *undertraining*, not overtraining. Their fear of training *on the edge* keeps them from achieving the muscular growth they are capable of.

In this manual we offer programs ranging from a single workout four times per week, up to



two workouts a day, six days each week.

Be sure to pick a program with a training frequency appropriate to your daily schedule. If you are going to be out of town regularly on weekends, chances are you should skip the six-day program and opt for the four-day. Nothing breeds mental anguish for the bodybuilder more than a missed workout and the guilt he or she feels for missing it. You do not want to mess with your overall mindset by consistently missing workouts, so be reasonable in the program you pick. Also keep in mind that regularly missing the sixth day of a six-day program will cost you more progress than opting for the four-day program.

Of course, if you are into weight training to become a competitive bodybuilder the six-day-a-week, two-session-per-day program is going to look very appropriate. But do not be discouraged if your schedule will not permit it. You will still be able to achieve the same goals on the four-day program. It just takes a little longer.

Another concern involves the length of time you allow between training sessions. Some may believe that you can take a vacation from training without having it cost you in the development you have already achieved. This is simply not true. You would think that, because the body is comfortable during an extended rest period, it would find a way to sustain the physiology it possessed. But, the Bulgarians found that the body is continually in an adaptive state, whether you exercise or not. Atrophy, or muscle loss, is as natural a state for the bodybuilder as muscle gain.

When you think about it, this makes perfect sense. Think back to a time when someone you knew was in the hospital for a long stay stuck in bed. When he returned home did you notice how much weight he had lost? In the same way, when a person has a cast put on his arm or leg it is remarkable to see how much muscle tone he has lost when the cast is removed.

It is also interesting to note that atrophy takes place more quickly in a highly conditioned athlete than in an average person. The athlete's body is highly sensitive and when it recognizes a lack of stress, his highly conditioned nervous system will work as effectively toward atrophy as it will toward muscle development.

Because of this, bodybuilders must be particularly concerned with the question of how long they can rest without losing the muscle tissue they have gained. The Bulgarians found that atrophy began 72 hours after the last stress, or exercise, was applied. Therefore, you do not want to rest any longer than 72 hours (three days) between workouts. If your last workout is on Friday, it will be a necessity to get back into the gym on Monday to protect the growth you have made.

### **FACTOR #3 BODY PART TRAINING FREQUENCY**

The same goes for any body parts you exercise. Any longer than three days between workouts

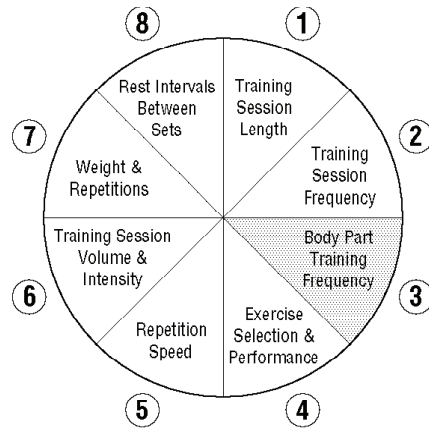
and you will risk atrophy.

On the other hand, it is important to remember that just because atrophy begins 72 hours after a muscle has been stressed does not mean that it takes 72 hours for recovery. Contrary to what some may claim, a muscle recovers much faster than it begins to atrophy.

Likewise, soreness is no indicator of proper recovery. Sore or not, a muscle can be trained again five hours after previous training. Along this line, it must also be said that the old bodybuilder tale that you can only train a body part twice a week for growth and three times a week for definition is way off the mark. This is simply another one of those bogus beliefs that got perpetuated and handed down over the years.

Much less recovery is required for someone who trains at peak efficiency than was formerly believed. We have found that with the use of nutritional supplements and proper training procedures athletes have trained the same body parts three times daily, six-days a week and achieved phenomenal results.

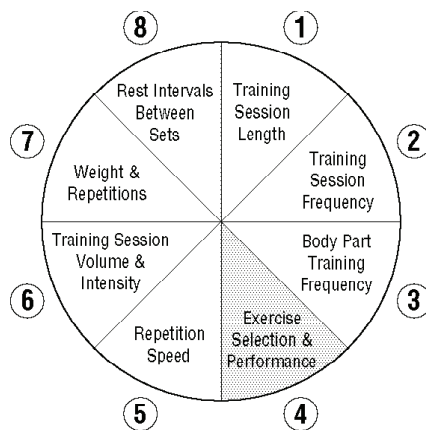
It is certainly no problem to train a body part daily and make progress as long as you understand and properly use the Training Model. Again, training on the edge where the real growth comes requires you to throw away those old prejudices and myths, but it is well worth the effort.



#### FACTOR #4 EXERCISE SELECTION AND PERFORMANCE

The question of exercise selection is one that has long plagued bodybuilders. Scores of fitness magazine articles over the years have been devoted to revealing secret exercises that stimulate muscle growth more than others. Most often, advice in this area has been aimed at particular exercises that have been found through experience to be effective for building muscle mass. There has really been no theory or guidepost for properly choosing one exercise over the other.

But exercise selection plays a critical role in *Big Beyond Belief* and it is time someone came along to give the bodybuilder a framework in which to determine what exercises are best. We think this area is so important that we will devote a whole chapter to it later in the manual. By zeroing in on



Neuro-Muscular Activation we have developed a logical, easy way to evaluate and choose the exercise that will work best for you.

We will leave the discussion of our method for exercise selection to chapter four. Until then, keep in mind that productive training comes from utilizing compound exercises and free-weights over the isolation exercises and machines.

### **Strict Form vs. Heavy Weight**

When we talk about *form* we are talking about the quality of execution of an exercise. Form focuses on *how* an exercise is done and there are differing levels of form to be concerned with in weight lifting.

To demonstrate this, let us take a barbell curl and examine it from different levels of commitment to form. Very strict form would entail no bouncing off the thighs and absolutely no swaying of the upper torso as the bar is being curled upwards.

Loose form would entail a slight bounce off the top of the thighs and a slight backward lean as the weight is coming up. This will allow more weight to be lifted than with strict form.

Sloppy form would include a strong bounce off the thighs creating unwanted momentum, an exaggerated backward lean and a possible bounce with the knees to allow the weight to come up. This would allow even more weight to be lifted during the exercise.

Here is where the confusion comes in. Where strict form allows you to target muscles and greatly reduce the possibility of injury, it also lessens the amount of weight you can lift and may reduce the intensity of a workout below an effective level.

On the other hand, sloppy form allows you to lift more weight but you will begin to use other muscle groups in an effort to get the weight up. That actually reduces the stress to the target muscle group. Risk of injury is also increased.

That is why, for maximum effectiveness, we suggest you begin your set with strict form. When the repetitions become impossible to perform strictly, loosen up your form slightly to continue the set but ***never go into sloppy form.***

This is a dynamic process that allows you to begin on one end of the spectrum when the set is begun but does not require that you stay there. It also indicates our preference for applying maximum irritation to the target muscles rather than “picture perfect” form.

But never lose sight of the fact that you can increase stress by simply performing exercises with more strict form. A guy used to doing sloppy barbell curls may find himself suddenly making progress by beginning to pay attention to good form. In this way, growth can be achieved without adding weight or changing exercises.

### **Muscle Fiber Training**

Much has been made of “fiber typing” for determining appropriate exercises and training.

*White* muscle fiber has been found to be more effective in generating muscular power while *red* muscle fiber breeds enhanced endurance. All muscle tissue has both kinds of fiber, but one generally predominates. This will determine what kind of strength and endurance an individual may possess in a particular body part.

The Eastern Europeans quickly seized on this finding when it was discovered. The Russians, Germans and Bulgarians began to do muscle biopsies knowing that white fiber in the legs would generate superior power and make for better Olympic lifters. Trainers in other sports have followed up on this research and designed programs to maximize white or red fiber according to the needs of specific sports. They have even gone so far as to meticulously subcategorize different varieties of red and white fibers.

The important point to make here is that bodybuilders need not be concerned with muscle fiber typing. While it may be important in power sports, track and field, football or other performance sports, the bodybuilder is not trying to develop muscle for a specific task. It is necessary to get a full spectrum of stress on the muscles for maximum growth.

Those training programs out there that focus on fiber typing are irrelevant for bodybuilders.

## FACTOR #5 REPETITION SPEED

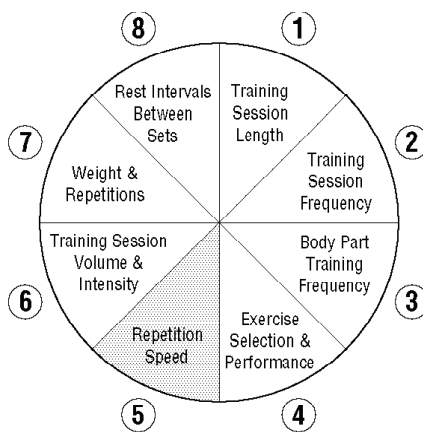
What we are concerned with here is the speed at which you perform a repetition. Many have claimed that sets should be performed slowly, but we suspect that sometimes people design exercise theory around the limitations of their equipment. If pushing a machine fast causes it to wear down and break, then there is a big temptation to prescribe slow reps when those machines are in use.

Then there is the “go for the burn” crew who will try to convince you that the pain you get from super-slow reps is necessary for growth.

This is all hogwash.

Muscles are designed for speed. The faster you can move weight through space, the more stress is applied to the muscle. That is the exact opposite of what the “slow trainers” are saying.

As for that burning sensation that you get when you opt for super-slow reps, that is from a buildup of lactic acid in the muscles and not from any increased stress. Indeed, the two things that stimulate your muscles are load (amount of weight) and the speed of the muscle contraction (how fast you move the weight). When you do slow reps, you must use less weight than normal and keep yourself from contracting too fast. In essence, you are doing the exact opposite of what you should be doing for maximum muscle growth.





The only problem with training at maximum speed is that the momentum created can lead to sloppy form, risking injury. Also, if the speed of the repetition is too fast, it can reduce the stress to the muscle by relying more on momentum.

That is why we say the best approach to an exercise is to perform each repetition as quickly as possible while still maintaining proper form and constant control of the weight. This will produce maximum stress while minimizing the chance of injury.

## FACTOR #6 TRAINING SESSION VOLUME AND INTENSITY

These two factors play a major role in any weight training program. Traditionally, *training volume* is emphasized by bodybuilders who want to maximize muscle size. Intensity is emphasized by power lifters, or strength-oriented athletes.

Training volume can be defined basically as the measure of total weight being lifted in a workout. It is determined by multiplying the weight being lifted by the repetitions and number of sets performed together (Volume = weight  $\times$  reps  $\times$  sets). For example, if you bench-pressed 175 pounds for 5 sets of 8 repetitions each your total volume would be:

### EXAMPLE

$$175 \text{ lbs.} \times 8 \text{ reps} \times 5 \text{ sets} = 7,000 \text{ lbs.}$$

Intensity, on the other hand, measures the average weight lifted during a workout. Intensity is determined by dividing the volume of weight lifted in a session by the total number of repetitions performed. For example:

### EXAMPLE B

$$\text{First Set: } 225 \text{ lbs.} \times 10 \text{ reps} = 2,250 \text{ lbs.}$$

$$\text{Second Set: } 275 \text{ lbs.} \times 6 \text{ reps} = 1,650 \text{ lbs.}$$

$$\text{Third Set: } 325 \text{ lbs.} \times 4 \text{ reps} = 1,300 \text{ lbs.}$$

$$\text{Total Volume} = 5,200 \text{ lbs.}$$

$$\text{Total Intensity} = 5,200 \text{ lbs.} \div 20 \text{ reps} = 260 \text{ lbs.}$$

Total intensity for the first example (A) equals 175 lbs. simply because the same weight was used for each set.

The definition of high-intensity training became confused by many during the 1980s. Some



misunderstood that “high-intensity” training meant you were putting out more effort or “training harder.” This is incorrect. In fact, if you were to duplicate the above workouts you might well find the higher volume workout to be much more strenuous and difficult to perform than the higher “intensity” session.

On the other hand, do not make the mistake of thinking that you could gain maximum muscle growth by performing endless repetitions with little or no weight (no volume). This would essentially amount to calisthenics and we know this would not build a high-degree of muscle.

Understand that the terms *volume* and *intensity* are relative and our Training Model dictates that a proper combination of both be used. As you will discover upon integrating the Big Beyond Belief workouts, volume and intensity must be strategically adjusted over time. This is accomplished through the application of micro-periodization, hyperacceleration, and hyperadaptation. These techniques will be explained later in this chapter.

## FACTOR #7 WEIGHT AND REPETITIONS (Set Volume and Intensity)

The same concerns of volume and intensity apply for the individual set, as it does for the entire training session. However, when referring to “set” volume and intensity we will use the more common terms “repetition” and “weight” as they are interchangeable.

In power-lifting or Olympic-lifting there is no need to go beyond three repetitions in a set. That 1-3 rep range makes it easy to dial in a proper ratio between volume and intensity, and training remains relatively consistent and simple in nature.

But bodybuilding is not performance oriented. You are not going after some outside objective like maximum weight on the bar. You are after maximum muscle size and strength. Because of this, you have to systematically go up and down a scale of volume and intensity as your training continues. Ratios constantly change. Some days, higher volume training will be stressed. On others, intensity will be the focus. Again, later in this chapter we will elaborate on how to manipulate these ratios for maximum effect.

### Set Focus

To help gain the maximum stress from each set, it helps to develop what we have termed a “set focus”. While it may be acceptable to count reps while you perform your exercises you may want to discard this practice as you grow more experienced. Instead, try focusing on the stress



received by the muscles being targeted in your exercises and work to maximize it.

The number of reps should, of course, be close to that recommended for your program. However, the number of reps performed is not nearly as important as the quality of execution in the entire set. The target rep ranges you are provided with on workout charts are merely a way of getting you to choose the proper amount of weight.

The key to any set is focusing the stress on the targeted muscles. The experienced bodybuilder should learn that providing for proper stress is far more important than counting reps.

## FACTOR #8 REST INTERVALS BETWEEN SETS

How much rest should you have between sets? This question is often underemphasized by trainers and bodybuilders but it is an important one. To begin to answer it we will need some basic information on *bioenergetics*, or the way your body uses energy sources during exercise and muscle contraction.

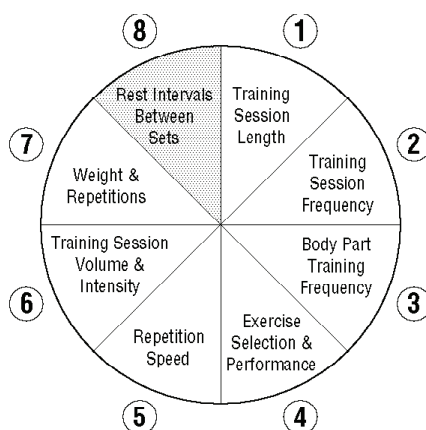
Most important here is understanding which energy system is being used by your body in the exercise you are performing. There are three basic energy systems: the ATP-PC, the Lactic Acid, and the Aerobic Energy system. All three are being used when you exercise, but one will dominate, based on what type of stress your body is receiving.

The ATP-PC system is the body's most powerful energy source for short bursts of exercise. Adenosine Triphosphate (ATP) and Phosphocreatine (PC) are two high-energy compounds essential to body activity. ATP and PC are stored within the muscle and no oxygen is required to release energy in the ATP-PC system (they are an anaerobic energy source).

Because of this, ATP and PC are immediately available for use by the body. They also pack a powerful punch. On the other hand, ATP and PC stores in the muscle are limited and this restricts the amount of energy the ATP-PC system can provide. In fact, in a rigorous workout, all ATP-PC energy can be exhausted in 30 seconds or less.

As a result, the ATP-PC system is the main source of energy for power training. This is the source that Olympic and power lifters use in getting tremendous amounts of weight up for a single repetition. It takes a while to replenish your ATP supplies so you will find athletes who are training for power resting three minutes or more in between sets.

The burn you will feel during and after a long, hard set is caused, in part, by the buildup of a waste product called Lactic Acid. Activating the Lactic Acid System allows for more volume-



oriented training. If you move from set to set more quickly, with less time for rest in between, there is not enough time to restore the ATP completely in a muscle cell. Glucose molecules stored in the muscle are then split, producing more ATP. Lactic acid builds up as a waste product from this process.

The Lactic Acid system produces more energy than the ATP-PC system overall, but cannot get the muscle the same kind of immediate, high-level surge in energy that produces the power of the ATP-PC source. However, it has been found that 15 minutes after a workout that taxes the Lactic Acid system, higher concentrations of growth hormone appear in the blood. That is one of the reasons workouts stressing high-volume training, where the Lactic Acid system predominates, produce superior growth in muscle size.

The Lactic Acid system is primary in workouts of moderate to high-intensity and shorter rest periods. The rapid breathing you will experience after employing the Lactic Acid system helps to restore oxygen and remove the lactic acid from the body.

The Aerobic Energy System is activated by jogging and other long-lasting, low-intensity activities devoted to improving cardiovascular fitness. It is less powerful than the anaerobic systems above and less important in weight lifting, but it does play a role during recovery. While you train one muscle using the ATP-PC or lactic Acid systems, the Aerobic System is helping in the recovery of muscle groups previously worked.

The Aerobic System uses the large store of carbohydrates and fats in the body and does not produce the toxic waste products found in anaerobic systems so it can provide a greater amount of energy over long periods of time. Marathoners make maximum use of the Aerobic Energy System.

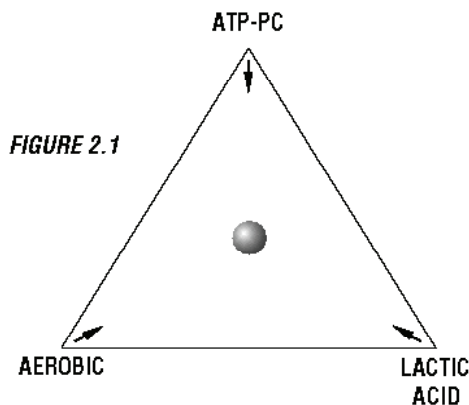
For superior muscular growth, rest periods need to be strategically varied in your weight training program. This allows for a full spectrum of stress for muscles. This is reflected fully on the workout charts you will be introduced to later.

### Bioenergetic Fields

To see how all three energy systems work together, but at different levels, look at the bioenergetic field triangles provided here and on the next page.

In **figure 2.1**, each corner of the triangle represents one of the three energy systems. The circle in the center represents a specific type of training. As you can see, all energy systems are exerting equal influence here. In reality, this kind of training situation seldom occurs, but this is what our triangle would look like if all three energy systems were activated in perfect balance.

**Figure 2.2** shows the training effect of a



marathon runner. The Aerobic Energy System dominates here. The other two systems are still working, but have less influence.

**Figure 2.3** represents a wrestler's training effect. The Lactic Acid System has the greatest influence here while the Aerobic and ATP systems, though still activated, play less of a role.

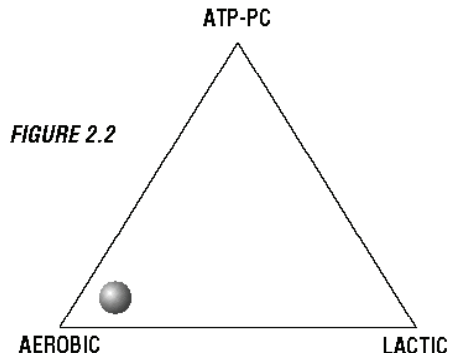
**Figure 2.4** shows the triangle for a power lifter. You will note the predominance of the ATP-PC system as previously explained.

In the previous illustrations you can see the importance of focusing training into a specific location of the bioenergetic field. For bodybuilding it is more complicated. When training for a performance sport, i.e. throwing a javelin or running a marathon, the training must be specific for that application with little variance on the bioenergetic field. Bodybuilders are unique in that they focus on what other athletes would consider a side effect—muscle growth.

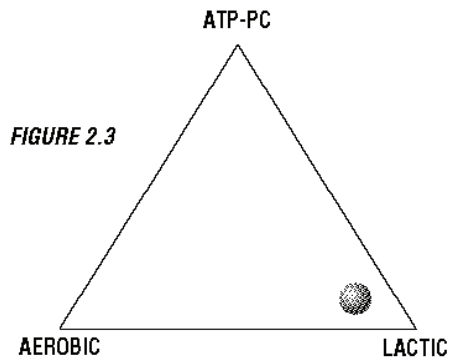
Muscle growth does not occur at any one point on the bioenergetic field. It occurs in an area within the field. This “muscle growth field” (see figure 2.5) must be systematically stimulated in multiple areas for maximum muscle growth. The multiple stimulation of the muscle field is achieved via micro-periodization.

**Figure 2.5** represents bodybuilder training. You will note it provides a much more complicated situation where the ratios between energy systems are constantly shifting through strategic use of rest periods, hyperacceleration, hyperadaptation, and other concepts we will discuss in the following pages.

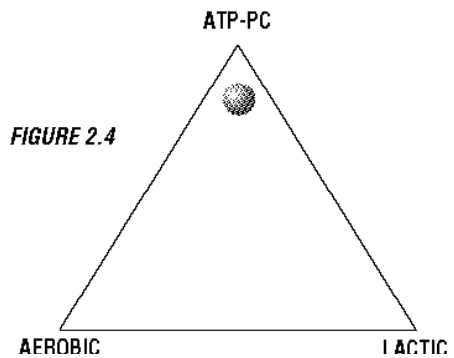
These eight stress factors define all the tools necessary to create the most effective bodybuilding program. The next step is to appropriately



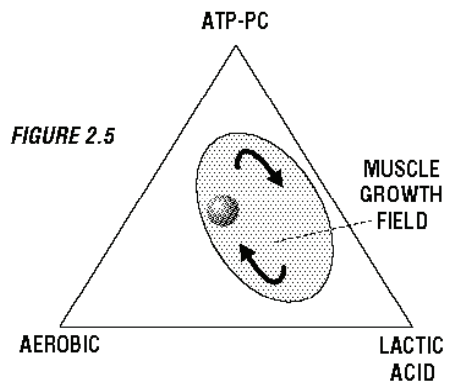
**FIGURE 2.2**



**FIGURE 2.3**



**FIGURE 2.4**



**FIGURE 2.5**

manipulate these stress factors. In the following section we will discuss micro-periodization, hyperacceleration, and hyperadaptation. All of these fancy sounding terms are simply methods of manipulating stress factors six, seven, and eight (as shown to the right).

## MICRO-PERIODIZATION

Now that we have discussed the stress factors involved in our Training Model let us take a look at the “big picture” and how to best structure our workouts to achieve Serious Growth.

The first major component in the Training Model is *micro-periodization*. Traditionally, periodization is a way of systematically varying the volume and intensity of training over a given period of time. Usually, the training program is divided into three segments. Each training segment has a different focus and the segments are often called “phases”. Each phase is designed to build on the previous phase. Traditionally, each phase lasts 3-4 months so the overall program generally runs about a year.

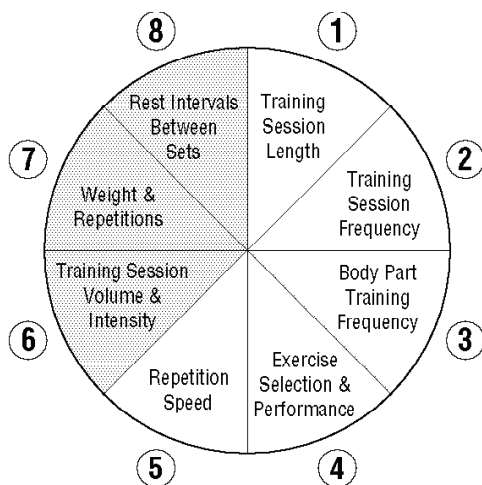
This approach was popularized in the Soviet Union and received much attention in American strength and fitness journals toward the end of the 1980s. An example of periodization would be a bodybuilder who trains during the off-season with heavier weight and fewer repetitions (higher intensity). Then he or she will work into an intermediate phase and finally decrease weight and add a large number of sets and reps (high-volume) as a way to develop more definition when competition approaches.

This *is not* the most effective way to train.

The Bulgarians later refined this technique into a more effective process they call *micro-periodization*. They take the whole 9-12 month periodization process and compress it into one week. They found that muscle physiology responds and adapts better when exposed to short-term training cycles.

Micro-periodization strategically varies the volume, intensity and rest periods in a weekly time frame. This insures that the muscle growth field, that lies within the bioenergetic field, is fully stressed. Each week is divided into three micro-periodized cycles beginning with an endurance cycle and proceeding through strength and power cycles. Eastern Bloc researchers found that placing the cycles in this order provided the best results.

In essence, the body grows and responds better when it is in peak metabolic condition, and micro-periodization allows you to stay in peak condition all year long. Remarkably, micro-periodization was also found to lengthen an athlete’s competitive life. The older method of Soviet periodization, which peaks an athlete once or twice a year, turned out to be hard on the body



and caused him to burn out much sooner than he should have.

We have synthesized these important findings into our Training Model and, as per the Eastern Bloc research, we will be providing for all three cycles during each workout week.

## **LAG TIME**

We like to stress that what we are presenting in this manual is not a mere set of routines but a Training Model which takes into account all the critical aspects of weight training. It provides a detailed map of everything you need to know on your way to getting the body you are striving for. The model is based on the concept that one-week's progress is dependent on the previous week's conditioning.

At the heart of this principle is the fact that, when your body is stressed, there is a *lag time* before it begins to adapt to that stress. Usually this works against us, but we can make it work for us, as well.

For example, when a person first begins to diet and significantly reduces his calorie intake he generally experiences dramatic weight loss. With the body's metabolic rate running at a normal level and calorie intake suddenly dropped, weight is lost due to the fact that the metabolism is running at such a higher level than the calorie intake. During this lag period the body takes time to figure out and respond to dietary changes. After a lag period of a few weeks duration, the body finally adapts to the change by lowering its metabolic rate to a level matching the calorie intake. Weight loss slows at this time.

Another example of lag time is when bodybuilders use a procedure known as *glycogen loading* or *carb loading*. By starving the body of carbohydrates they reduce the muscle's glycogen store (glycogen aids in the synthesis of ATP—the energy carrier we talked about before). The body responds by pulling as many carbohydrates into the muscle as possible (in the form of glycogen). When the athlete goes back to high carbohydrate consumption, his metabolism is fired up to the point that it continues to rapidly pull carbohydrates into the muscle even after normal glycogen levels have been restored.

The lag time, the time between the return of carbohydrates to the diet and the body's recognition that there is plenty available again, allows the athlete's muscles to keep greedily grabbing for carbs long after normal levels are returned. A *hyperloading* of carbohydrates results, which produces a temporary thickening of the muscle bellies. After awhile the glycogen store will return to normal. These two examples are by no means new or unique in concept. What is unique is using the phenomena of lag time to stimulate muscle growth.

## **HYPERACCELERATION & HYPERADAPTATION**

Our strategy uses the same principle. *Hyperacceleration* involves training using the maximum training stress so that your body's adaptive potential is taxed to its limits. This will cause an emergency state in the body and adaptive energies will rise to a higher level. Then, in the



hyperadaptation phase, we abruptly and dramatically lower training stress. As above, adaptive energies remain at a high level for short periods of time (due to the lag time phenomenon), and the sharp contrast between high adaptive energies and lower training stress results in accelerated growth.

At its simplest we are creating an emergency situation for your body, backing off, and then letting your body play catch-up. We start by gradually ramping-up to increased levels of volume and intensity while limiting rest periods. You will be doing the exercises quickly and you will find your level of strength waning in the face of stress.

Suddenly, you will switch to a hyperadaptive phase where you will decrease volume and increase rest periods. At the peak of exciting your body to its maximum level, you suddenly take the pressure off and allow it to catch up. With your body at a high state of activity, suddenly there is no need for the excessive adaptive energies. So, an overabundance of adaptive energies creates additional muscle growth. As in the weight loss and glycogen loading examples above, you are going to find yourself making dramatic gains.

*Hyperacceleration* (ramping phase) and *hyperadaptation* (super-growth phase) are keys to growth for the bodybuilder. Many bodybuilders have inadvertently experienced the tremendous benefits to be gained by using these concepts such as switching from a high-volume training program to high-intensity/low-sets program, but few have understood them well enough to use them to achieve growth over a long period.

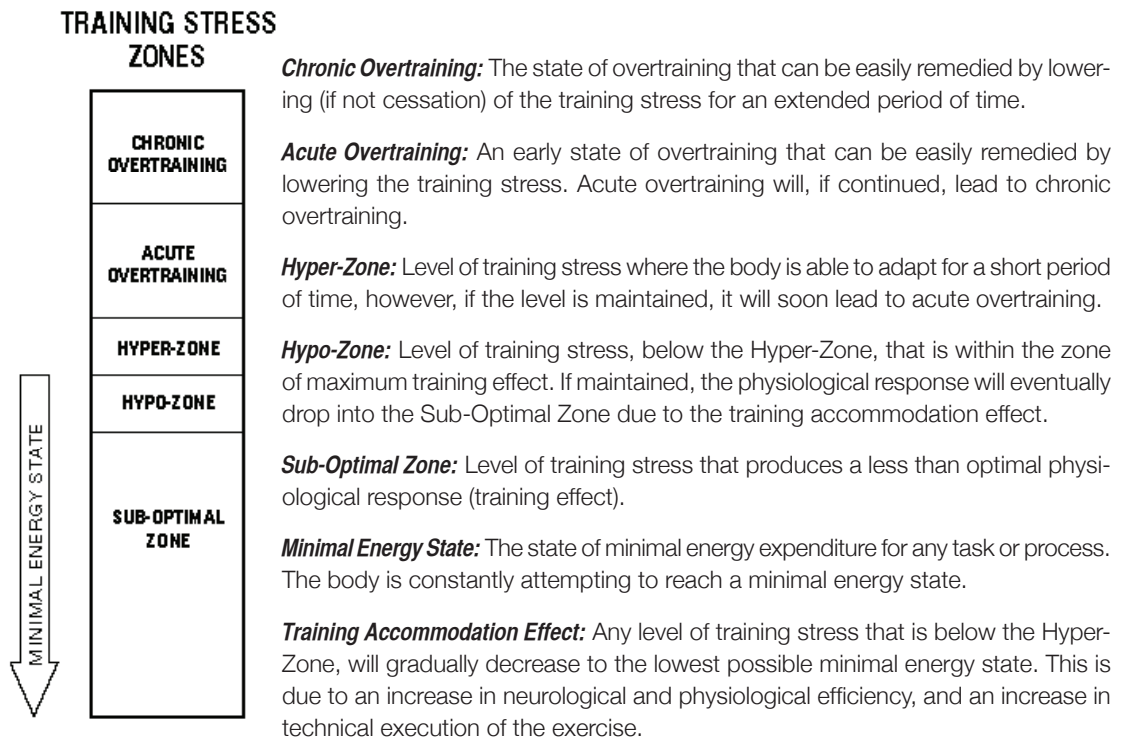
Understanding our Training Model allows the bodybuilder to learn how to use these principles to insure long-term growth. Eventually he will be able to instinctively determine when hyperacceleration and hyperadaptation phases are needed to achieve growth. First, however, the bodybuilder must be aware of the *training stress zones* and how they come into play in weight training.



# CONSTRUCTING THE OPTIMAL TRAINING MODEL

## INTRODUCTION

We have explained the eight stress factors, micro-periodization, hyperacceleration and hyperadaptation. All these create an environment for optimal muscle growth. The next, and most important step, is to build a *model* of how all these components interrelate. We will do this via a step-by-step construction of the Optimal Training Model. This will provide a better understanding of how all the seemingly confusing pieces fit into a simple puzzle.



## MINIMAL ENERGY STATE

Initially, it is necessary to understand the principle of *minimal energy state*. Your body is constantly striving to achieve a state where its energy reserves will be taxed to the smallest degree possible. That is why people do not gain muscle from just walking around and performing their daily chores. It takes more energy to maintain muscle mass, than to not. Your body wants to keep muscle mass at a minimum to keep the energy you expend at a minimum.

Because of this, muscle atrophy (muscle shrinking from lack of use) is a perfectly natural

process. This is especially true for the highly conditioned athlete. As we discussed earlier, the athlete's body will work at higher efficiency both in gaining muscle mass and losing it. The body is constantly trying to get to a state where it expends the minimum energy possible.

That is why we accommodate to training. The body learns how to become neurologically efficient quickly and will adjust to any training routine. The more conditioned the person, the faster the minimal energy state will be reached. This explains why a champion level bodybuilder will go stale in a training routine quickly. His body rapidly perceives the new stress, adapts and begins to accommodate to it so that it can keep its energy expenditure down.

## TRAINING STRESS ZONES

Step two in building this model is to divide the levels of stress into zones. The lowest defined as Sub-Optimal and the highest defined as chronic overtraining.

## ACUTE AND CHRONIC OVERTRAINING

In the last decade, "overtraining" became a dirty word to many bodybuilders. It became common to believe that everybody was overtraining. Their logic dictated that if you just cut back on volume in response to the overtraining you would achieve significant growth and, as we have discussed, you will for a while. Unfortunately that growth does not last.

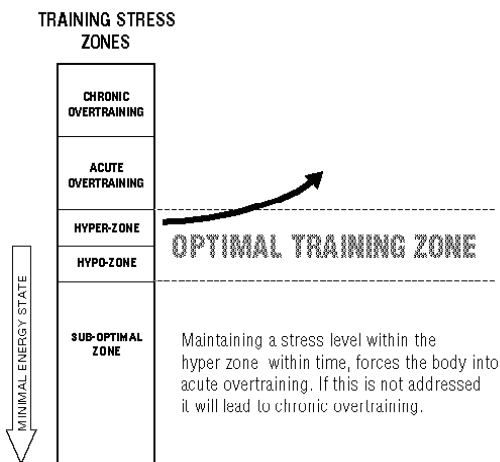
Much of the problem here comes from not understanding the difference between *chronic overtraining* and *acute overtraining*. Chronic overtraining is a serious condition for the bodybuilder. It puts the bodybuilder at risk of injury and will halt progress and eventually cause him to lose what he gained. In chronic overtraining the bodybuilder must severely lessen training or even end it.

Acute overtraining is simply an early state of overtraining. It can lead to chronic overtraining but it can easily be dealt with by lowering training stress. Acute overtraining can also be used to your benefit in activating the hyperacceleration and hyperadaptation processes we talked about earlier.

## THE HYPER- AND HYPO-ZONES

For maximum results, these are the areas in which you should be training. In the upper or *Hyper-Zone* the body will adapt to training and add muscle successfully for a short time. This is one of two zones where maximum growth is made, but if training continues in this period it will lead to acute overtraining.

In the lower, or *Hypo-Zone*, maximum growth will continue, but the action of Minimal Energy State will eventually force the stress level



into the Sub-Optimal Zone due to the body's continuing attempts to adapt to training. In the Sub-Optimal Zone the body responds to stress by working to make itself comfortable and adapt to it. Muscle growth is minimal, if any.

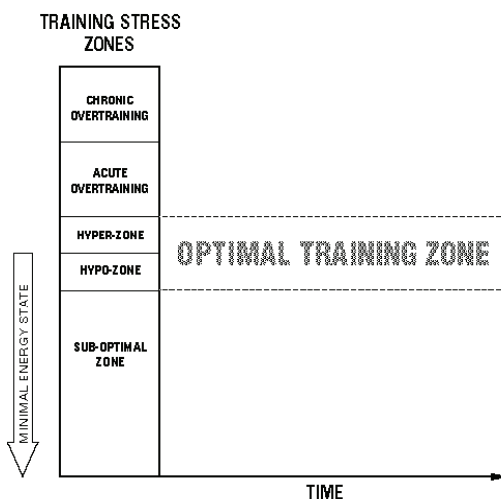
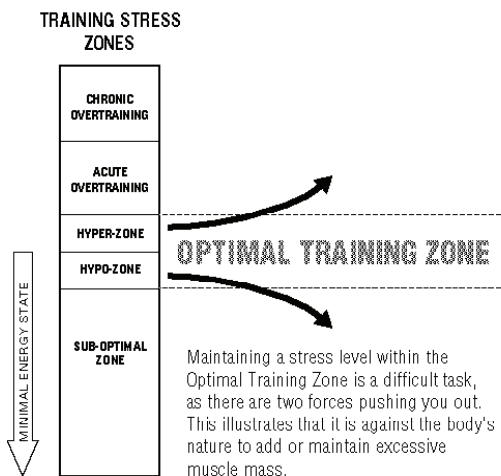
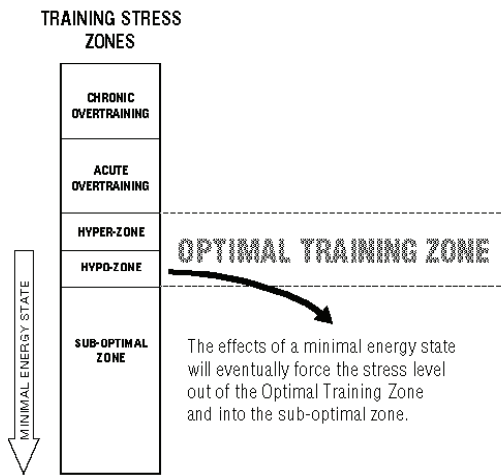
If you have ever worked in a job shoveling gravel or doing other manual labor you know that the first month you perform these activities you are dead at the end of the day. Recovery and adaptation reserves are sapped. But, after that initial period, your body begins to accommodate to the demands and you eventually end up using less of your energy reserves than the guy who just got hired. Again, the body will work toward reaching that Minimal Energy State.

### OPTIMAL TRAINING ZONE

It obviously stands to reason that, for maximum growth, it is essential to stay in the Hyper or Hypo zones all the time. These two zones combine to make up the Optimal Training Zone. At some point in Hyper-Zone level training you will lose your ability to recover and adapt to rigorous training and begin to overtrain. Similarly, at some point of Hypo-Zone training the forces of minimal energy state will kick in so the body will be more comfortable, stress will be minimized and growth slowed.

### OPTIMUM TRAINING MODEL

Our goal in devising an Optimum Training Model is to take into account all training factors, including the body's tendency toward a minimal energy state and overtraining, and provide the bodybuilder with a map explaining those things he experiences in his training and what he can expect to see on the road ahead. Having the map on hand, he should be able to see the big picture and ultimately plan and execute a training strategy geared toward achieving Serious Growth.



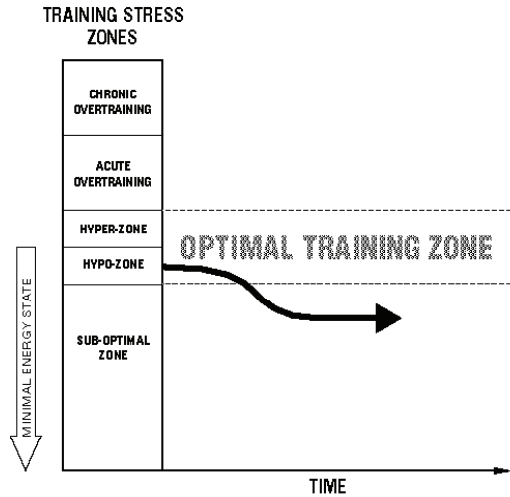
In the next few pages we will outline a series of common training situations bodybuilders face and discuss how they can be explained by the Optimum Training Model.

### TRAINING GOES STALE

In this scenario, the bodybuilder finds himself on a good program, making progress. Eventually, progress diminishes. He will be using the same weight or may even be upping the weight (progressive resistance) but progress virtually stops.

What has happened here is that the body has successfully accommodated to the training stress it has been receiving. The body's wish to work toward a minimal energy state finally takes center stage, and the bodybuilder ends up getting pushed out of the optimal training zone through his own physiology. In the Sub-Optimal Zone, little training effect (growth) will be experienced.

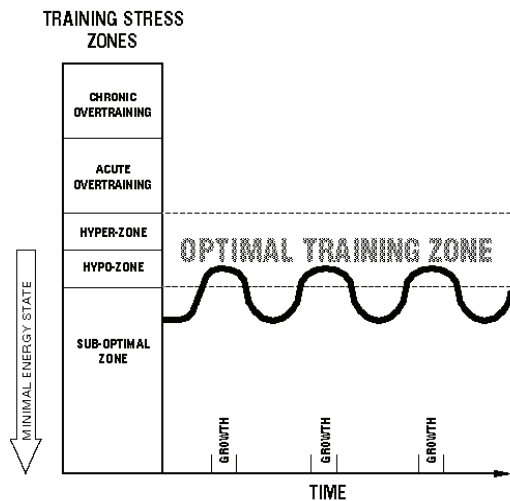
The diagram above reflects the quandary of the bodybuilder who finds a program that works initially, but will not make the necessary changes when it goes stale and the *accommodation effect* takes place in the body. Many bodybuilders who have been in training for several years find themselves *plateauing* when the routine that originally got them success no longer works. They will end up looking no different than they did years ago.



### THE MUSCLE CONFUSION THEORY

This is how most people are training today. The bodybuilder finds himself in the Sub-Optimal Zone making little progress and decides to try a new routine. Sure enough, he begins to make progress again when training stress rises to the Hypo-Zone. He will soon find himself down in the Sub-Optimal Zone again when the body accommodates to the new routine. Then he will turn around and try something new again and the whole process repeats itself. This is the most common experience for bodybuilders.

This muscle confusion approach to growth involves tricking the muscles into growth by constantly changing routines. Most often, all

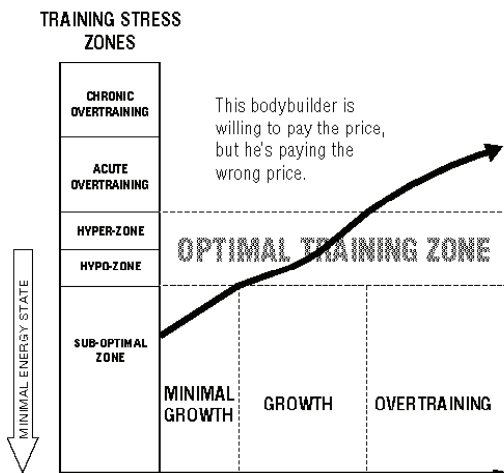


it really does is end up confusing the bodybuilder. It is more mental confusion than muscle confusion. The bodybuilder finds himself spending as much time in the Sub-Optimal Zone as he does the Optimal Training Zone and wasting a lot of precious time.

## TRAINING HARD, BUT NOT SMART

In this situation, someone begins in the Sub-Optimal Zone experiencing little progress, gets fed-up, changes his routine or increases volume, and kicks into high-gear. He will achieve growth, and spend plenty of time in the Optimal Training Zone, but he will eventually push himself into acute overtraining.

At that time, he will begin to notice growth slowing down. His response is that he will just train harder to overcome this. He forces himself into chronic overtraining where he loses growth and injury or burnout occurs. He cannot understand why what worked for a while does not work any longer. He thinks it is overtraining and he will either quit training, resort to steroids, or begin writing articles for *hardgainers*.

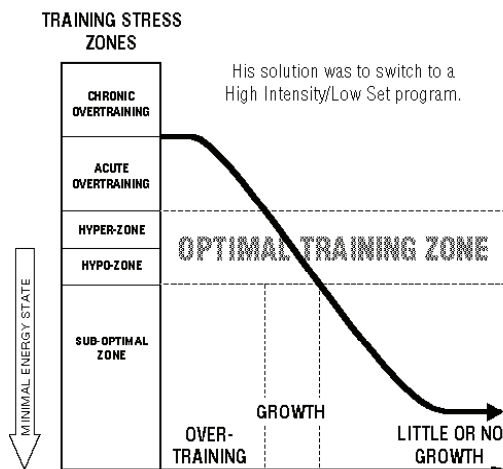


## THE HIGH-INTENSITY/LOW-SET SYNDROME

Here is another typical situation for the dedicated bodybuilder. He has been busting his backside on double split, two-hour training sessions and then he runs into that expert who tells him he has been overtraining and has to cut his volume down.

That's right, of course, but the strategy only works over the short-term. Sure enough, he cuts down on training session volume and finds himself achieving tremendous growth. But only for a while. Soon his body accommodates to the lessened training and he is mired in the Sub-Optimal Zone again.

Lately, many bodybuilders are switching to high-intensity training sessions and limiting body part training to twice weekly. They are experiencing immediate growth due to the hyperadaptation effect. The problem is, unless they do something else, that growth will not continue. They will accommodate to the new training



and end up training at a Sub-Optimal level. They will then opt for some kind of aimless muscle confusion approach and find themselves wasting a lot of valuable time.

## THE OPTIMUM TRAINING MODEL

As you can observe, staying in the Optimal Training Zone is not a static process. You have to make the proper changes and choices to stay within its parameters. You will find yourself ramping (hyperaccelerating) and working toward acute overtraining. At the moment you are reaching your peak and jeopardizing your growth through overtraining, we back-off so that the hyperadaptation effect can occur and you can pack on the muscle.

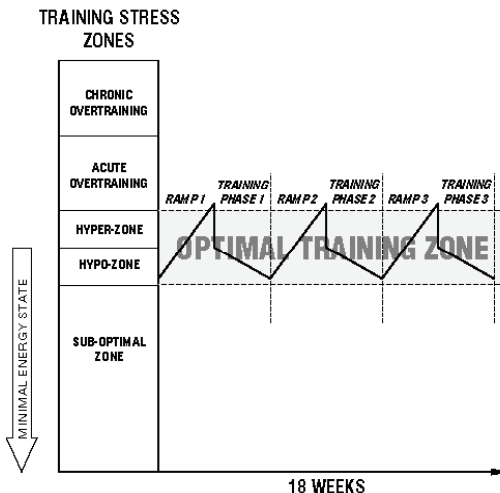
This is done through a process of ramping where you will gradually find your training load increasing through a three-week phase only to have volume cut dramatically at the beginning of another three-week phase for maximum hyperadaptation and growth. It is important to remember that each hyperadaptive phase is set up for the specific ramping or hyperacceleration that has taken place before it. You cannot just use mix and match. Ramps and hyperadaptation phases are specifically designed to keep you constantly working in the Optimal Training Zone and achieving maximum growth, so do not get tricky with them.

Once you have finished our three-phase, 18-week program you can go back to the beginning or move to the phase that seems to work best for you. Different people will find different hyperadaptations getting the best results. But you need to go through the full 18-week program of Level One training first to get your body and physiology tuned up to all three types of ramps (or hyperacceleration) to find which works best for you.

Eventually, you will find yourself being able to ramp-up and then stay in a hyperadaptation (super-growth) phase for long periods of time. This is where instinctive training comes in. You will feel yourself going into the Sub-Optimal Zone and know it is time to ramp-up again, but you need to get the feel of each of the hyperaccelerations before being able to accurately determine what may be best for you. We have had some bodybuilders stay on one of the hyperadaptations two months before dropping into the Sub-Optimal range and having to re-ramp.

## INFLUENCES ON THE OPTIMUM TRAINING ZONE

The Optimum Training Zone can be narrowed or widened by three critical elements: per-



**formance supplementation, poor nutrition and a high-level of conditioning.** The presence of these elements can have an enormous effect on your ability to stay within the Optimum Training Zone and achieve maximum growth. Our Training Model provides an explanation of the effects these factors have on development.

**Performance supplementation** widens the top portion of the Optimal Training Zone by raising the upper limits and allowing the bodybuilder to push harder in his training without running the risk of acute overtraining. Performance supplementation will allow the bodybuilder who really wants to go after Serious Growth to train harder by increasing his ability to recover and adapt.

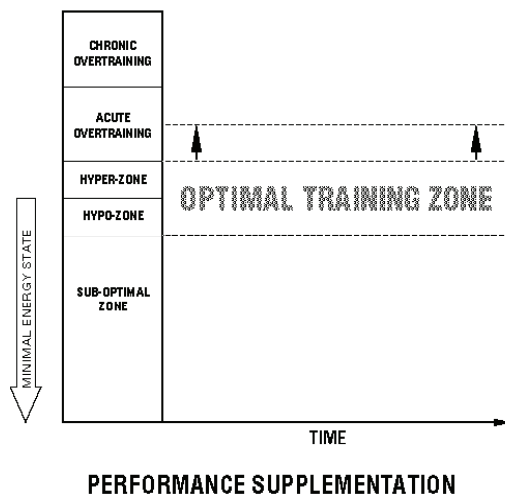
It must be admitted that performance supplements do little for the bodybuilder who is satisfied with lower level training. He does not have the needs of the guy going all out, and the extra edge that performance supplementation gives you when you are training on the edge will not be necessary for him. This is why athletes who are not training hard and try performance supplements may feel no improvement while those on the edge find a noticeable difference.

You will also find athletes who are already in chronic overtraining getting little use from supplements. They are already so far into the overtraining stress zone that there is no way the widening of the Optimal Training Zone could help them.

The athlete who opts for a cheap product will also find himself getting few results from performance supplements. Low-quality supplements do not have the necessary ingredients to really increase recovery capabilities and increase optimum training limits. They may not cost much, but you are still wasting what you spend.

But if you are training on the edge, and receive the proper supplementation, you will notice the differences in growth and energy immediately. To discover more about how supplements work to aid recovery and growth, we have provided an important chapter on the subject later in this manual. If you are training on the edge, and concerned about supplements, we urge you to read chapter 9.

The use of anabolic steroids increases the Optimal Training Zone both for those who tend toward overtraining and those mired in the Sub-Optimal Zone. Steroids aid recovery to keep you from overtraining and, on the other hand, also allow you to train at minimal levels and





still attain growth.

Unfortunately, they will also make you a training imbecile.

The sad truth is that most bodybuilders who go on steroids never learn to train properly. They can train just about any way and still get growth, so they do not refine their training. Why should they?

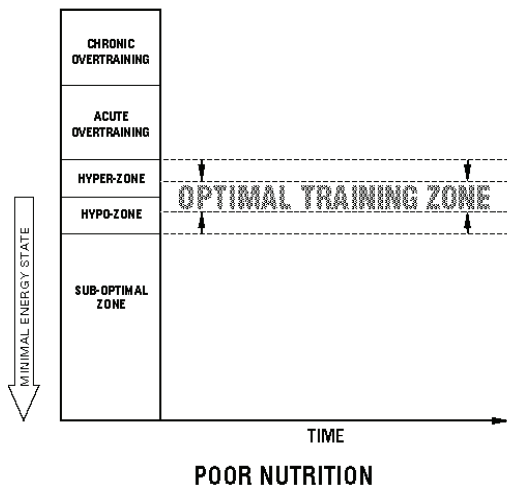
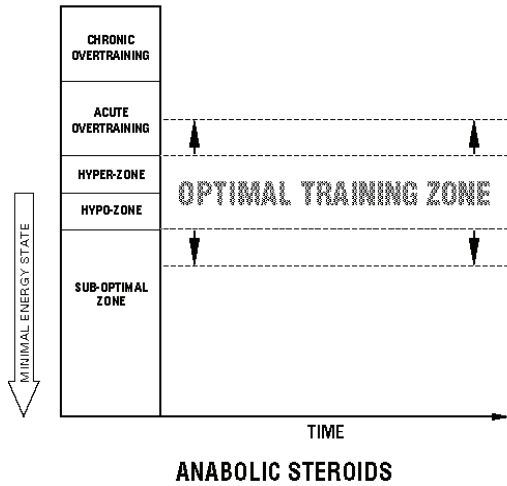
They think they have their training dialed in, but when they go off steroids they suddenly find themselves shrinking up to nothing. They cannot figure out what is going on. The fact is, they have not learned how to train and will not be able to rise above Sub-Optimal training because of it.

Training with steroids is much like a child riding a bicycle with training wheels. He watches his big brother riding on two wheels and thinks he is doing the same thing. He thinks he really knows how to ride a bike, but he does not. He is fooling himself. All anabolic steroids do is give you training wheels. Meanwhile, they can also wreak havoc on your life both physically and mentally.

It is truly amazing to see some of the bodybuilding programs out on the market right now authored by bodybuilders who know ten times more about pharmacology than they do about physical training. They think they are doing everyone a great public service by bringing their training secrets to the average guy. Trouble is, these programs do not work too well if you do not have a pharmacist around to provide the necessities.

**Poor nutrition** can greatly narrow the Optimal Training Zone for an individual bodybuilder. Eating too few calories or the wrong kind of food will reduce your ability to recover and force you into overtraining much more easily than would normally be possible. We will discuss nutrition in-depth in a later chapter, but, for now, it is only important to understand that poor nutrition plays havoc with recovery and muscle growth.

A **high-level of conditioning** also narrows the Optimal Training Zone in a different way. These athletes are going at their training at a hundred-miles-per-hour clip in comparison to





others so the ups and downs you see on previous stress zone charts are much more severe and quick with this group. They are pushing their bodies to the limit and it is much easier for them to enter into overtraining or accommodate to a particular training strategy.

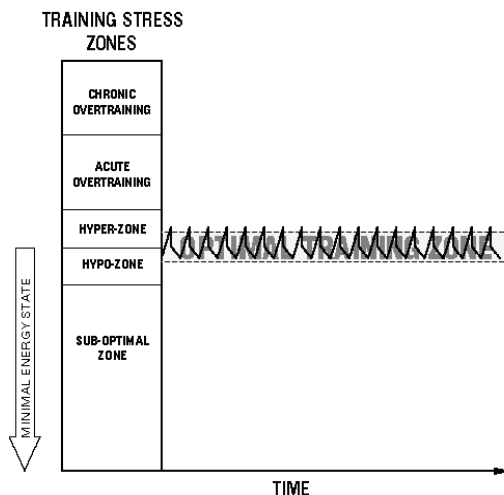
That is why it is doubly important for the serious bodybuilder to insure a high-quality diet and use performance supplements to help widen the optimum zone.

## ADVANCED OPTIMUM TRAINING MODEL: LEVEL TWO

Even with the best diet and performance supplements, the highly conditioned bodybuilder will still be faced with a narrowing of the Optimum Training Zone. His body is finely tuned and reacts very quickly to any variation in training.

The best way to combat this is to use high-frequency *mini-ramps* to make up for the more pronounced fluctuations in training effect. These mini-ramps do not last three weeks like those prescribed for the bodybuilder just getting on the 18-week program. Instead, they are much shorter and occur more frequently. In our advanced, Level Two training you will be hyperaccelerating and hyperadapting within the space of a week.

We will give you the actual guidelines for this later in our workout section, but keep in mind that these mini-ramps are something that should only be used after going through the full 18-week Level One program. After that, you can opt for the advanced model illustrated here, or go back to Level One used earlier. It is up to you.



## INSTINCTIVE TRAINING: LEVELS THREE AND FOUR

Advanced training will lead you to the *instinctive training* that is the exclusive domain of high level bodybuilding. The experience you gain in mastering ramping and what different zones feel like will eventually get you to the place where you can train instinctively.

But, again, do not mistake instinctive training for *emotional training*. Instinctive training comes from experience and learning how your body feels when entering a particular stress zone. Emotional training comes when a bodybuilder confuses his mental state or feelings with the intuition he has gained from experience.

Many times a bodybuilder will have a bad day, feeling a little down or tired, and take that as a cue that he should cut back on training volume. That is not instinctive training. Instinctive training runs much deeper. Many times, a high level bodybuilder would feel like he got hit by

a truck in the morning but instinctively knew from the way his body felt that he had to hit it hard again. He would go ahead and take his workout to the limit and end up experiencing phenomenal growth for his efforts.

The only way to get this kind of *body sense* is to systematically run through the training phases we are going to give you and learn to feel the full range of sensation in those phases. With experience, you will get to the place where you can feel the effects of ramping to the point where you will know instinctively when to back-off or ramp-up.

## **BECOMING YOUR OWN COACH**

What do Michael Jordan, Joe Montana and Nolan Ryan all have in common?

Other than the fact they are all superstars in their sports, they all had the benefit of something an instinctively trained bodybuilder does not have: a coach.

In instinctive training, you have to become your own coach. You will be the boss on all your training decisions and it will be up to you to keep the emotion and the temptation to succumb to the old bodybuilding myths out of your workouts.

This is what makes bodybuilding tough. It is where the adversity comes in. Not only do you have to do all the work and continue to push yourself to your limits, but you also have to set all the guidelines and plan out your training all by yourself. There is no coach there to do it for you like there is on the basketball court or football field.

That is why, before you begin to instinctively train, we urge you to study this manual and go through Level One and Level Two training first. Learn them inside out. Use them as a coach. It will be up to you to take your training to the heights, but, at least with the manual in hand you will have a strong, established coaching base to start from.

## EXERCISE SELECTION

### A BREAKTHROUGH

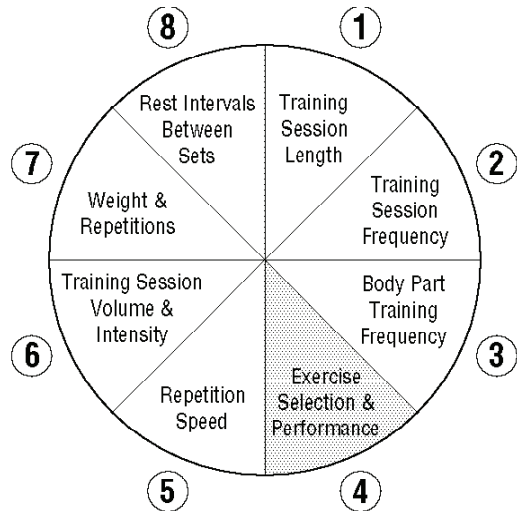
One of the biggest, most perplexing problems for the bodybuilder has always been, “What exercises should I use?” Countless magazine articles, instructional tapes and in-the-gym training sessions have been devoted to the topic, but there has never really been a solid framework given to the bodybuilder to help him in selecting the best exercises for his training program.

Most advice has been devoted to individual exercises. We have passed on the question by saying, “These exercises are good basic builder exercises, and these are not,” based on our experience. But, we never really knew *why* some of these exercises worked and some did not.

“Squats,” we said for example, “are much more productive exercises than leg-presses.” But, from a muscle working perspective, these exercises stress the same areas and there is really no visible reason why squats should be superior. They just are.

We decided it was high-time to find out why some exercises were better mass builders than others and what really made one exercise more effective than another. Maybe there is another way to look at exercises to determine what is a mass builder and what is not.

Sure enough, we started looking at the neurological effects of exercises and discovered a unique method of rating the productivity of exercises based on its ability to stimulate the nervous system in the body. At the heart of our approach is a new rating system based on *Neuro-Muscular Activation* (NMA) that allows you to put all exercises into perspective and determine their effectiveness for you. This is a breakthrough in exercise selection for the bodybuilder.



### COMPOUND VS. ISOLATION EXERCISES

One of the building blocks for our NMA theory is the proven superiority of *compound exercises* over *isolation exercises*. Compound exercises (like the bench-press or dips) stress multiple muscles across more than one joint while isolation exercises (like dumbbell flies or working the “pec-deck”) stress only across a single joint. Many have touted the superiority of isolation

exercises saying you could more accurately target a specific muscle with them and thus develop that muscle more efficiently.

The problem with this is that working muscles across a single joint is not the most effective approach to building muscle. Because compound exercises incorporate the use of several groups of muscles instead of the limited amount stressed in isolation exercises, they allow a greater training load for more muscle in the same amount of time.

The squat, for instance, is a compound exercise. It works the quadriceps, hamstrings, glutes, lower back, abdominals, calves and the abductors and thus is an incredibly effective exercise. Compare this to a leg extension which is geared for the quads and you will immediately see how much more productive the compound exercise is.

Compound exercises are more time and energy efficient. You get the most muscle worked in the shortest and most efficient period of time. As you will see later, compound exercises also provide for a higher level of neuro-muscular stimulation.

## **LINEAR VS. VARIABLE RESISTANCE EXERCISES**

Variable resistance machines vary the resistance through the range of motion of the exercise. In theory these machines are designed to reduce the resistance at the weakest part of the movement, and to increase the resistance at the strongest part of the movement. The machine's intent is to match your natural strength arc.

Theoretically this all sounds good but, when you really begin to examine it, this is based on false logic. Let us go back to our earlier chapter where we discussed the fact that muscle growth occurs from stimulation by outside stress. You pick up a 20-pound dumbbell, curl it, and it creates stress on the muscle. The muscle will then adapt by growing so the next time stress is applied, you will be able to lift the dumbbell more easily. The muscle adapts to the outside environment.

Variable resistance machines, however, do the exact opposite by trying to adapt the outside stress to the muscle. Through variable resistance, the machine is attempting to change the rules of nature. If you are providing a machine to adapt to the muscles, those muscles are not having to work as hard. By making the muscles' task easier, they are not going to need to adapt and grow as much.

In the outside environment, in the real world, there is no cam there adjusting resistance. You have to go out and lift what you need. Through evolution, our muscles have been designed to work in a certain way and the cam on the machine does not allow for natural movement and stress.

Go to any gym where there are high-caliber athletes. You will not see them working much with machines, variable resistance or linear. They are working free-weights. Intuitively, over time, they have found free-weights to work better. Experience has shown them what we know

from looking at neuro-muscular activation: compound exercises using free-weights is the way to go.

## **RATING EXERCISES BASED ON NEURO-MUSCULAR ACTIVATION**

Muscles grow as a result of neurological input or stimulation from the nervous system. It may be the outside stress that produces that stimulation, but it is the nervous system which ultimately causes growth.

Whenever you cut a nerve to a muscle, you will see the importance of the nervous system in muscle maintenance and development. Atrophy begins almost immediately. Atrophy will actually occur faster through nerve loss than through lack of use. Taking lack of exercise, faulty nutrition, or loss of nerve supply into account, it is the latter which will cause atrophy the quickest. Nerve activation is the key to muscle growth and maintenance.

We have discovered that measuring neuro-muscular activation (NMA) or the amount of neural stimulation of the muscle provides an excellent measure of the effectiveness of an individual exercise. The more the amount of neural activation in the muscle, the better the exercise. The higher the NMA rating, the more growth and strength development.

It is the same as watching a movie or reading a book. The more involved you are in something, the more focused you are, the more you will get out of it. Muscles are not unlike the human mind. The more concentrated they are on a task, in terms of neurological concentration, the more they will gain from it. The higher the NMA, the more growth will occur.

For a moment, think of NMA as driving a vehicle. At its very lowest level you will find yourself at Disneyland driving one of those little *Autopia* cars hooked up to a track. You really do not have to steer as the track will take care of that for you. All you have to do is give the car gas to accelerate and maintain motion. You can eat a burger, talk to a friend or whatever. Little concentration is necessary.

Go up several degrees and drive an automobile and you will find concentration much more necessary and increased. Added to controlling the accelerator are the needs to steer the car left and right and allow for greater traffic flow. Activity level is raised significantly.

Go up several degrees more and you are flying an airplane. You not only have to control speed and turns, but altitude, pitch, and yaw. The demand for concentration and psychological awareness has increased as you have moved up the ladder. You do not see many airline pilots cranking up the stereo speakers in their cockpits like you do someone driving a car. There is too much demand for concentration.

NMA works in a similar manner. Unfortunately, when it comes to NMA the *wonder-machines* resemble more a ride on the *Autopia* than in the friendly skies. Lifting free weight involves a much higher level of neuro-muscular activation, and thus the muscle growth to be gained from it reflects this height.

## NMA LEVELS

What we would like to supply you with is a classification system for NMA. The higher an exercise stands in this system, the more demanding it will be on the nervous system. The higher the level of neuro-muscular activation or stimulation, the greater the opportunity for growth from the exercise.

We have classified NMA at seven different levels. Your measure of an exercise's effectiveness will come from the NMA level at which it is classified.

**LEVEL ONE:** Isolation exercises using variable resistance machines. These exercises provide the lowest level of NMA stimulation. They are the *Junior Autopia* of weight lifting. As we already know, compound exercises provide more stimulation than isolation.

Meanwhile keep in mind that, contrary to the arguments of many, the old style *linear*-machines are actually more effective in activating and stimulating the nervous system than the *variable resistance* contraptions. They are just like the old bench-press machines or the simple hack-squat or leg-press apparatuses. They are on tracks but they have no cams, and do not involve variable resistance. You just stack on the weight and go for it.

Also, research has shown that you will get a higher level of concentration in the biceps by having a machine where you can grab onto something and hold it. Many of the variable resistance machines supply pads for your wrist, which takes much of the gripping motion out of an exercise like the curl, and limits contraction. Again, the variable resistance machines do you a disservice by taking you further and further away from the natural environment for exercise. We are not designed to be in machines. We are designed for real-life, 3-dimensional work, and the limited NMA level achieved by variable resistance machines underlines this important fact.

**LEVEL TWO:** This level of NMA comprises compound exercise performed with variable resistance machines. The machine bench-press would be an example of this kind of exercise. You are in a better position for nerve stimulation because you are performing a compound exercise, but the variable resistance mechanism limits the possible stimulation and growth potential.

**LEVEL THREE:** Isolation exercises with non-variable resistance machines. There is no cam, chains, or gears. You just stack the weight on and curl it. These machines are cheaper, but provide enhanced NMA. Sometimes you do not get what you pay for.

**LEVEL FOUR:** Non-variable-resistance compound machine exercises. You will find that cable mechanisms are at a higher NMA level than guided-track machines. With cables there is yaw, pitch, and other variables to be concerned with. It is a more realistic, 3-dimensional situation. When you are doing low cable-rows, as opposed to being locked in a machine and pulling, your body senses the more natural environment and responds with a higher level of neural stimulation. You can feel the increase in

stress and the greater growth potential.

**LEVEL FIVE:** Isolation exercises with free-weight. There is a grey area between some Level Five and Level Four exercises. It is debatable whether isolation exercises with free-weights (like standing lateral-raises with dumbbells) are actually superior to doing a shoulder-press on a machine. It is possible that performing shoulder-presses on a Smith machine could have a higher NMA than the isolation with free-weights.

Still, though the two categories could be interchangeable at times, the free-weight isolation would have to be classified at a generally higher NMA level.

**LEVEL SIX:** Compound movements with free-weights. Remember at the beginning of this chapter when we talked about how confusing it was to determine whether squats or leg-presses were superior? From a kinesiology perspective, the same muscles are being worked. How can one exercise be superior to the other?

The fact is that if you lock yourself into a leg-press machine and do the exercise with as much intensity as you can, it will not provide nearly the same benefit as standing with weight on your shoulders and squatting. When you are squatting you are in a more natural, 3-dimensional environment. Your nervous system is at a much higher activating level. It senses there is more danger and reacts to it.

Psychologically, you are also provided with a boost from free weight. There is always that slight element of danger that gets you more focused and involved in the lift. Hey, when you have a load of iron on your back squatting, you are highly motivated not to fail on the lift!!!

Working with dumbbells on exercises can also provide optimum effectiveness. With dumbbells, anything can happen. They can twist, turn or roll off. The body senses that it has to develop balance and equilibrium and the muscles experience a much higher level of NMA.

The exception to this would come with the inexperienced bodybuilder. Without the skill to handle the dumbbells he might be better off with a bar. If he can bench-press 300 pounds on a barbell bench-press, for instance, he may only be able to push 80 pound dumbbells because of a lack of skill and balance. This person would be better off with barbells until he acquires more experience. It should also be remembered that some exercises, like squats, cannot be effectively done with dumbbells.

But for the highly skilled bodybuilder with better balance and coordination, dumbbells will generally require a higher level NMA and lead to increased growth. Most higher caliber bodybuilders have instinctively learned that dumbbells provide more stimulation.

**LEVEL SEVEN:** Moving the body through space. Your muscles will experience a higher level of NMA when you are moving your torso through space instead of merely moving your extremities. Again, because of the more natural nature of the exercise,



the addition of stimulated muscle groups and enhanced danger potential, the body responds with increased nerve activity. It is a similar effect to that which you get with dumbbells, without the coordination problems.

This moving-body-through-space bonus is one of the reasons why squats are so great. It is also the reason why weighted push-ups, while simple, are superior to bench-presses. You will feel a much deeper exhaustion at the end of them. It should not take much to realize the increased stimulation the weighted push-up provides. It is the same with substituting close-grip chin-ups for curls. The moving of the body through space involves much greater neuro-muscular stimulation than the curl.

Body movement is not always feasible, though. If you want to train your shoulders, for instance, handstand push-ups would fall right into place here. However the balance required and blood pressure problems involved would make them a poor choice. Still, in most cases, body movement provides for the ultimate compound exercise and highest NMA and growth potential.

## **EXERCISE SELECTION**

By understanding the above classification system and knowing its rules you will be better able to determine the value of an exercise and to make a more informed choice. This system is really quite revolutionary in that it marks the first time the bodybuilder will have a guide for exercise selection and not be forced to rely on guessing or hit-or-miss solutions.

You will be able to make informed choices. When faced with the prospect of a hack-squat or leg-press you will be able to see that, since the hack-squat moves the body through space, while the leg-press merely moves the weight and feet, the hack-squat is a better growth builder than the leg-press.

We also urge you to try to devote your training to exercises found between Levels Four through Seven. This is where the real NMA and growth will take place.

This is not to say, of course, that exercises found from Levels One through Three are useless. Variable resistance machines are convenient, easy to use, and there is a low risk of injury when using them. They can be excellent for rehabilitation.

It is important to remember to keep the majority of your workout at Level Four exercises and above. Bottom line, isolation exercises should never comprise more than 30% of a workout.

And do not pass up the chance to become an experimenter. By looking at the classifications above you may be able to discover a twist on a present exercise you are performing that will make it even more effective.



## CHAPTER 5

# BIG BEYOND BELIEF: THE WORKOUT

### WARM-UPS

As discussed earlier, our view on extended warm-up sessions changed after watching the Bulgarian lifters and coming to understand their *Body Becomes Its Function* creed. The Bulgarians only wanted to subject their lifters to stress similar to what they would face in competition, and the low level of stress provided by a warm-up set was not in line with the explosive movement they would need for getting world record weights up.

Still, the bodybuilder is not training with the same goals in mind. We believe you should allow for a brief warm-up, taking 40-50 percent of the weight you will be training with, and performing ten or so repetitions with it before starting a lift. This should loosen you up well enough to begin training. If you feel the need of an additional warm-up set, go ahead. Just do not waste a lot of time and energy doing warm-ups. Get the blood moving and get in a good stretch and then go right to your workout.

### THE PRE-CONDITIONING PROGRAM

The Big Beyond Belief workout is designed for advanced, experienced bodybuilders. If you have not lifted weights before or you are coming off a long layoff, you should condition yourself for the upcoming workouts with the Pre-Conditioning program provided below.

Keep in mind that you are just preparing your body for the real program here. Do not worry so much about weight. We want you to get used to doing the exercises and stressing your muscles. Take it slow in the beginning, and start to gear-up as you become more comfortable with the regimen. Above all, we want you to concentrate on technique and form.

### THE IMPORTANCE OF TECHNIQUE

<b>PRECOND. WORKOUT</b>	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>3 Sets Per Body Part</b>	(3) Chest (3) Back (3) Biceps (3) Calf	(3) Legs (3) Delts (3) Triceps	(3) Back (3) Chest (3) Calf (3) Biceps	(3) Legs (3) Triceps (3) Delts	(3) Chest (3) Back (3) Biceps (3) Calf	(3) Legs (3) Delts (3) Triceps
<b>*Rest 2 Minutes Between Sets</b>	Cycle A Endurance 10-12 Reps	Cycle A Endurance 10-12 Reps	Cycle B Strength 8-10 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 6-8 Reps	Cycle C Power 6-8 Reps

If you have watched the pros, you know how impeccable their technique is. It is as close to perfect as possible. Our staff at OTS takes the same approach. Though we have been lifting for years, we still critique ourselves closely because we know that the better your technique is on the exercises, the more benefit you will get out of them.

We cannot emphasize the importance of **technique** in your workouts. If you are doing bicep curls and you are really training your shoulders instead of your biceps (because you are doing the exercise wrong), then you are obviously not going to be getting the results you want. You are sabotaging your own progress.

**Learn to do the exercises correctly.** We also urge you to pick a minimum of exercises and learn to do them well. Stay with the basics. Do not get too fancy.

## **UNDERSTANDING THE CHARTS**

You will note that specific training components (Endurance, Strength, and Power in the Level One workouts; Endurance, Active Recovery and Intensity in Level Two) are cycled into your workout. As per Eastern European research, these cycles have been placed strategically in the workout charts. Be sure to perform the exercises on the days and in the manner specified on the charts.

The number of sets to be performed is in parenthesis. “Number of Repetitions” gives you a target for how many repetitions you should perform for each set of the workout.

The weight you pick to lift should be determined by that *target rep range* or amount of repetitions indicated on the chart. Pick the maximum weight that will allow you to do the specified amount of repetitions for the sets on that day. If you are able to do more reps than are called for on the chart, you need to add weight to the bar for your next set. If you cannot make the amount of reps outlined in the target rep range, take some weight from the bar.

### **Do not Be Confused By A Temporary Loss Of Strength**

Once you have settled into the workout routine you may experience a loss of strength or endurance during the first weeks of the program. Do not panic if this happens. You are not overtraining. Your body is just adapting to the added stress you are providing it.

It is important not to begin to question or make changes in your training during this period. Stick with the charts. Keep in mind that there is a rebounding effect that will occur following this period, where you will be rewarded with tremendous gains in strength and size.

## **TRAINING FREQUENCY**

When you look at the charts for Level One training, you will note that three different programs are offered. The first (pages 55-66) outlines a four-day-per-week training schedule, the second (pages 67-78) a six-day-per-week program and the third (pages 79-90) a six-day schedule incorporating two workout sessions per day.

Which to choose? It is largely up to you. Obviously, for maximum effect you would want to

train on the six-day, two-session-per-day schedule. But, this often is not possible. You need to pick the schedule that best fits in with your weekly needs and commitments.

Often, bodybuilders make a mistake thinking they can get on the six-day, two-a-day schedule. They will find themselves out of town every other Saturday, missing their workout and jeopardizing growth.

If you know that most of the time you will have six days free to train but realize that you will have to miss some workouts, we suggest you opt for the four-day schedule. Likewise, even if you think you can get in the two-sessions-per-day on the six-day program, but think you will have an occasional problem, opt for the single session schedule.

The rule of thumb here is: **IF YOU ARE NOT ABSOLUTELY SURE YOU CAN MAKE EACH SESSION EVERY WEEK, BACK OFF TO A LESS TIME-CONSUMING PROGRAM.**

Also remember that unlike other programs you cannot switch back and forth between, say, the once-a-day and twice-a-day schedules. These workouts are sophisticated and based on the most advantageous approach to activating the energy systems in your body. Do not mortgage your growth by skipping between programs and lessening the body's adaptive capabilities.

## **THE WORKOUT CHARTS**

In Level One training you will ramp-up to an ultimate Training Phase by following the guidelines for each of the three weekly ramps. The ramps will produce a strong hyperacceleration effect where maximum stress taxes your body's adaptive abilities to their limits. This causes an emergency-like state in your body and your adaptive energies will rise to a higher level.

Once you have gone through the three-week-long ramp, you will enter Super-Growth (hyper-adaptation) Training where the training stress is lowered. Your adaptive energies will stay at the same heightened level (due to the lag time principle we discussed earlier) and the sharp contrast between high adaptive energies and lower stress will create accelerated muscle growth.

You will stay at each Super-Growth Phase for a minimum of three weeks. If you are making good gains and training in the Optimum Zone you can stick with a Super-Growth Phase for a longer period. But once progress slows, it is time to move on to the following ramp.

Remember that each ramp is designed specifically for the Super-Growth Phase that follows. You cannot mix and match ramps and Super-Growth Phases. Each ramp bioenergetically sets you up for the following Super-Growth Phase. To mix ramps and Super-Growth Phases is to limit the hyperadaptive growth you will receive by following the charts properly.

What Level One training does is provide for a maturing of your muscle physiology. You need to go through all three ramps and Super-Growth Phases (it will take a minimum of 18 weeks) at least once in order to prepare your body and mind for future training.

Once you have gone fully through Level One training you can go back to a Super-Growth Phase that worked particularly well, ramp-up to it and continue to use that phase until you find

your progress slowing down. Then you can ramp-up to that phase again or cycle back to the beginning and start the process all over again. Most people will find it best to return to Level One ramp and go through the entire Level One training again but, bottom line, it is up to you. If you find one Super-Growth Phase getting you better results than others, you can stick with it for as long as it keeps you in the Optimum Training Zone.

Again, it is very important to go through the entire Level One training program at least once before doing something like this.

This is where the real fun begins. After cycling through all three Level One ramps and Super-Growth Phases you can opt to go on to Level Two training. Level Two training involves pushing your efforts to the edge where even more incredible growth is achieved.

To properly execute Level Two training you have to have every aspect of your training dialed in. You must have carried Level One training through to its completion. You need to have a sound nutrition program (see chapter 9 on Nutrition) and use effective supplementation (see chapter 10 on this subject). Because of your excellent conditioning, your Optimum Training Zone will narrow, and you will find it easier to lapse into the Sub-Optimal Zone, or into overtraining, but the growth to be gained through proper Level Two training is truly remarkable.

Level Two training involves staying on the proper Level Two program for 2-3 weeks. What the training does is provide for maximum hyperacceleration and hyperadaptation over the course of a single week. Ramping up and Super-Growth Phase are all compressed into one week rather than the six-week program prescribed in Level One.

The *Active Recovery* Days you will see mentioned on the chart are actually little more than midweek hyperadaptation phases. You end up working muscle, but only at a medium effort. During active recovery you do not go to complete exhaustion in your sets. What you are doing is keeping the muscle warm while allowing it to recover from the previous workout. The object is to stimulate muscle without taxing it beyond recovery levels.

There is a danger in Level Two training, however. You have heard of people getting “too much of a good thing”—this can certainly be true with Level Two. Any more than three weeks of Level Two training will fry you and throw you into overtraining. Some people will be tempted to stay on for an extra week because of the fantastic results they are getting but, in the end, they will pay for it. Level Two training is strong medicine.

Stay with Level Two training for 2-3 weeks maximum. After that, go back to your favorite Level One Training Phase. After progress diminishes, you can ramp back up to that Phase again or go back to Level Two training. This will allow for maximum hyperacceleration and hyperadaptation and some very, very **SERIOUS GROWTH**.

# ***THE WORKOUTS***

## *TABLE OF CONTENTS*

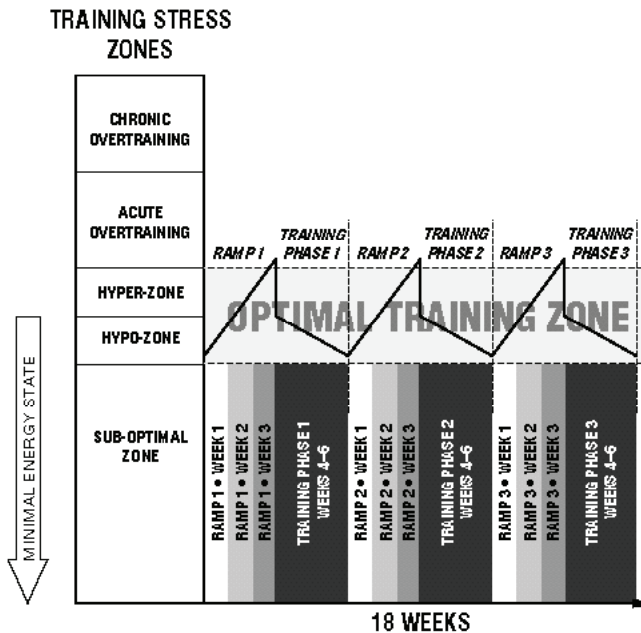
<b>LEVEL ONE TRAINING: 4 DAYS PER WEEK—1 WORKOUT PER DAY</b>	
<b>RAMP 1 CHARTS</b> .....	<b>55-58</b>
<b>RAMP 2 CHARTS</b> .....	<b>59-62</b>
<b>RAMP 3 CHARTS</b> .....	<b>63-66</b>
<b>LEVEL ONE TRAINING: 6 DAYS PER WEEK—1 WORKOUT PER DAY</b>	
<b>RAMP 1 CHARTS</b> .....	<b>67-70</b>
<b>RAMP 2 CHARTS</b> .....	<b>71-74</b>
<b>RAMP 3 CHARTS</b> .....	<b>75-78</b>
<b>LEVEL ONE TRAINING 6 DAYS PER WEEK—2 WORKOUTS PER DAY</b>	
<b>RAMP 1 CHARTS</b> .....	<b>89-82</b>
<b>RAMP 2 CHARTS</b> .....	<b>83-86</b>
<b>RAMP 3 CHARTS</b> .....	<b>87-90</b>
<b>LEVEL TWO TRAINING 4 DAYS PER WEEK—1 WORKOUT PER DAY</b> .....	<b>92</b>
<b>LEVEL TWO TRAINING 6 DAYS PER WEEK—1 WORKOUT PER DAY</b> .....	<b>93</b>
<b>LEVEL TWO TRAINING 6 DAYS PER WEEK—2 WORKOUTS PER DAY</b> .....	<b>94</b>
<b>LEVEL THREE: INSTINCTIVE TRAINING</b> .....	<b>95-96</b>
<b>LEVEL FOUR: ADVANCED INSTICTIVE TRAINING</b> .....	<b>97-104</b>



# Level One Training

*Four Days Per Week  
One Workout Per Day*

## Ramp 1



# RAMP 1 • WEEK 1

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1 ( ) Sets</b>	(3) Back (3) Chest (3) Bicep (3) Calf	(3) Delts (3) Tricep (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (1) Delts (2) Calves (1) Bicep (1) Tricep	(3) Thighs (3) Chest (3) Back (1) Delts (2) Calf (1) Tricep (1) Bicep
<b>Rest Period</b>	120 Seconds	120 Seconds	120 Seconds	120 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

# RAMP 1 • WEEK 2

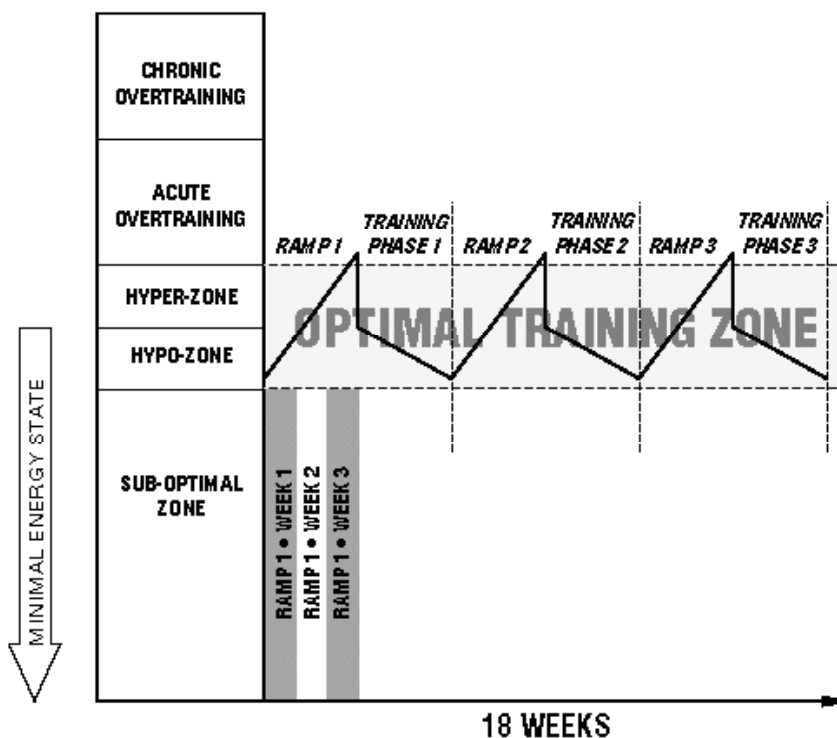
	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1 ( ) Sets</b>	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Tricep (4) Thighs (4) Abs	(4) Back (4) Chest (4) Thighs (1) Delts (2) Calves (1) Bicep (1) Tricep	(4) Thighs (4) Chest (4) Back (1) Delts (2) Calf (1) Tricep (1) Bicep
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps



# RAMP 1 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1</b> <b>( ) Sets</b>	(5) Back (5) Chest (5) Bicep (5) Calf	(5) Delts (5) Tricep (5) Thighs (5) Abs	(5) Back (5) Chest (5) Thighs (2) Delts (2) Calves (1) Bicep (1) Tricep	(5) Thighs (5) Chest (5) Back (2) Delts (2) Calf (1) Tricep (1) Bicep
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

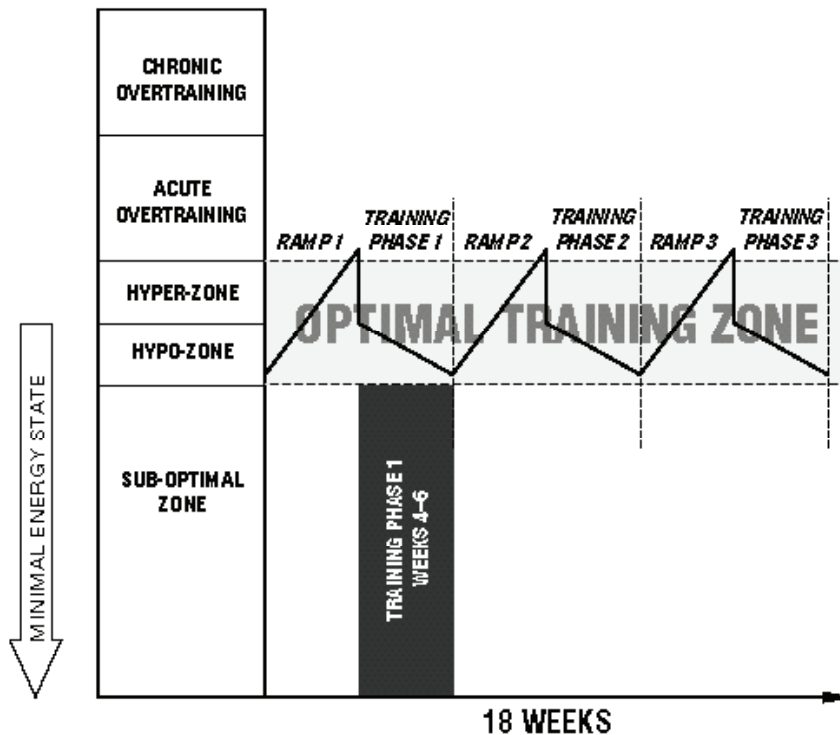
## TRAINING STRESS ZONES



# LEVEL 1 • SUPERGROWTH PHASE 1

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1 (3) Sets</b>	(3) Back (3) Chest (3) Bicep (3) Calf	(3) Delts (3) Tricep (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (1) Delts (2) Calves (1) Bicep (1) Tricep	(3) Thighs (3) Chest (3) Back (1) Delts (2) Calf (1) Tricep (1) Bicep
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 10-12 Reps	Cycle A Endurance 10-12 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 5-7 Reps

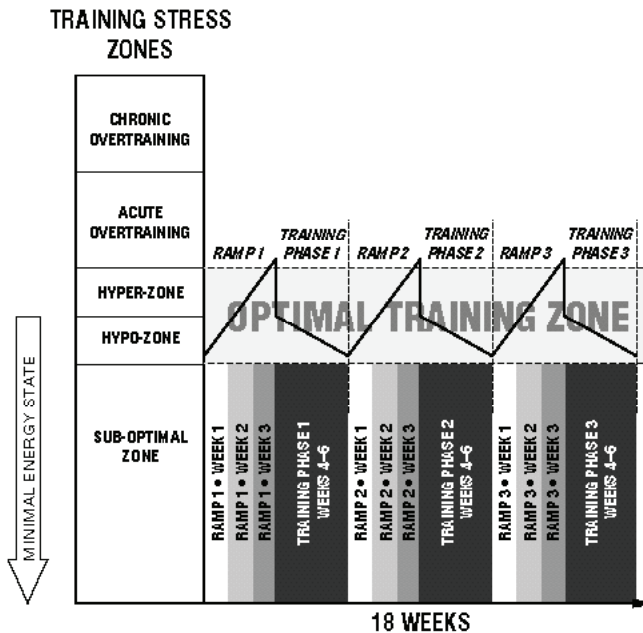
## TRAINING STRESS ZONES



# Level One Training

*Four Days Per Week  
One Workout Per Day*

## Ramp 2



## ***RAMP 2 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (3) Thighs (3) Calf (3) Bicep	(3) Chest (3) Back (3) Thighs (3) Calf (3) Tricep	(3) Back (3) Chest (3) Thighs (1) Delts (2) Calves (1) Bicep (1) Tricep	(3) Thighs (3) Chest (3) Back (1) Delts (2) Calf (1) Tricep (1) Bicep
<b>Rest Period</b>	150 Seconds	150 Seconds	150 Seconds	150 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

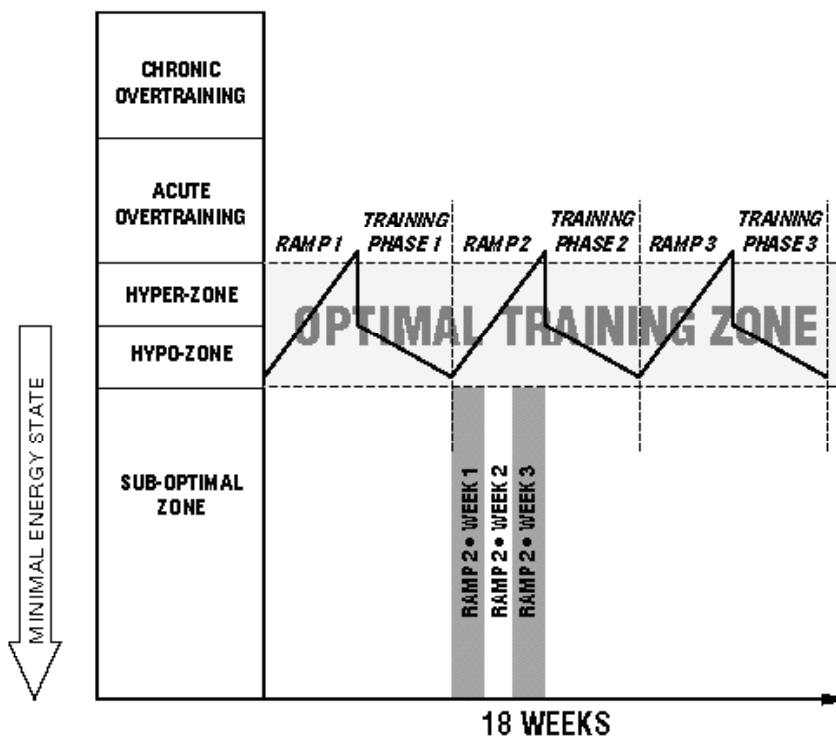
## ***RAMP 2 • WEEK 2***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (3) Thighs (3) Calves (3) Biceps	(3) Chest (3) Back (3) Thighs (3) Calf (2) Triceps	(3) Thighs (3) Chest (3) Back (2) Calf (1) Delts (1) Bicep (1) Tricep	(3) Back (3) Chest (3) Thighs (1) Delts (2) Calfs (1) Triceps (1) Biceps
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

# RAMP 2 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1 ( ) Sets</b>	(4) Back (4) Chest (4) Thighs (4) Calves (4) Bicep	(4) Chest (4) Back (4) Thighs (4) Calves (3) Tricep	(4) Back (4) Chest (4) Thighs (3) Calves (2) Delts (1) Tricep (1) Bicep	(4) Thighs (4) Chest (4) Back (3) Calves (2) Delts (1) Tricep (1) Bicep
<b>Rest Period</b>	60 Seconds	60 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

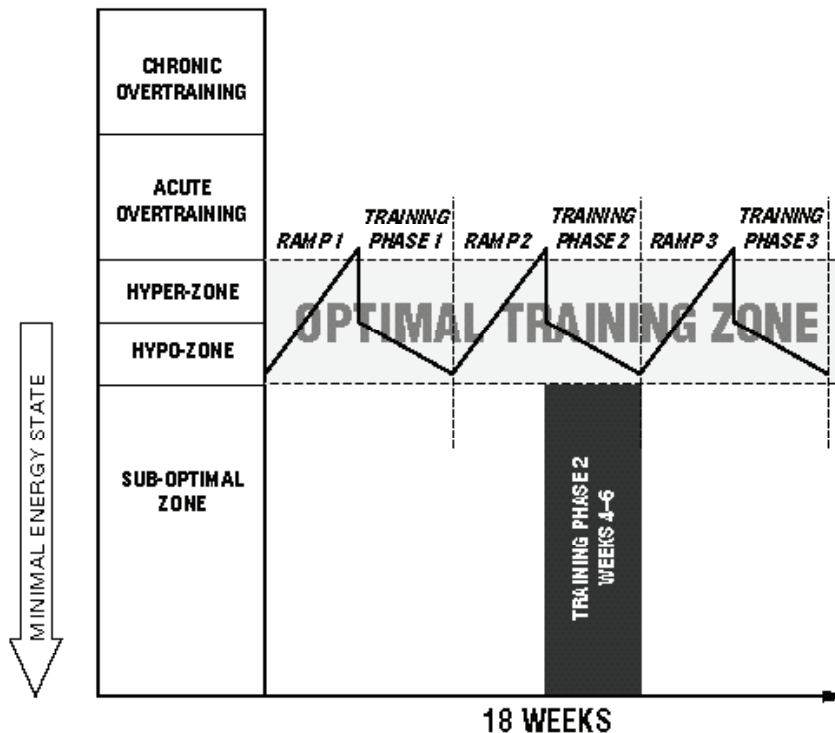
## TRAINING STRESS ZONES



# LEVEL 1 • SUPERGROWTH PHASE 2

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1 ( ) Sets</b>	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Tricep (4) Thighs (4) Abs	(4) Back (4) Chest (2) Calves (1) Triceps (1) Biceps	(4) Thighs (4) Chest (2) Delts (2) Calves (1) Tricep (1) Bicep
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

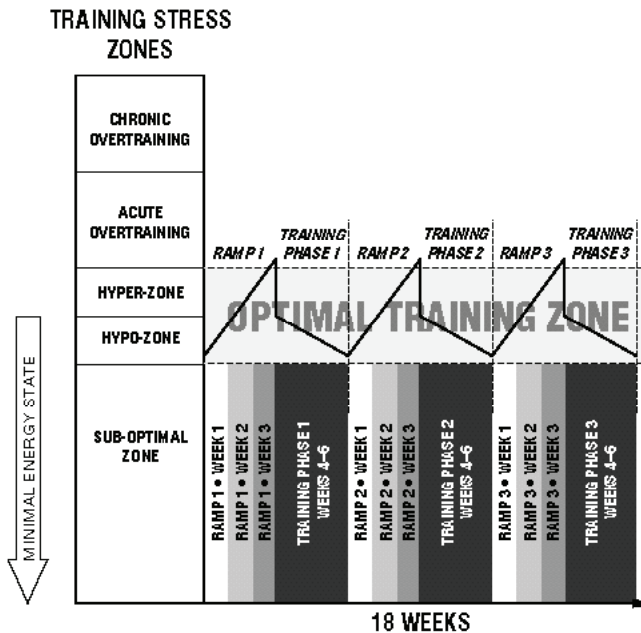
## TRAINING STRESS ZONES



# Level One Training

*Four Days Per Week  
One Workout Per Day*

## Ramp 3



## ***RAMP 3 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (4) Bicep (3) Calf	(4) Delts (4) Triceps (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (2) Calf (2) Delts	(3) Thighs (3) Chest (3) Back (2) Delts (2) Calves
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

## ***RAMP 3 • WEEK 2***

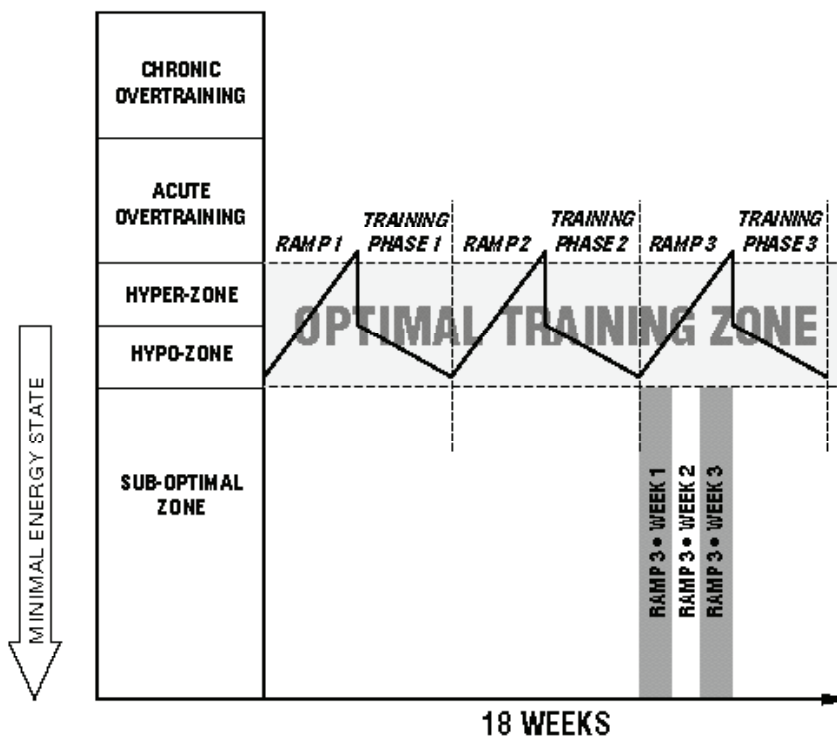
	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (4) Bicep (3) Calf	(4) Delts (4) Triceps (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (2) Calf (2) Delts	(3) Thighs (3) Chest (3) Back (2) Delts (2) Calves
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps



# RAMP 3 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1</b> ( ) Sets	(4) Back (4) Chest (5) Bicep (4) Calf	(5) Delts (5) Triceps (4) Thighs (4) Abs	(4) Back (4) Chest (4) Thighs (2) Calf (2) Delts	(4) Thighs (4) Chest (4) Back (2) Delts (2) Calves
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps

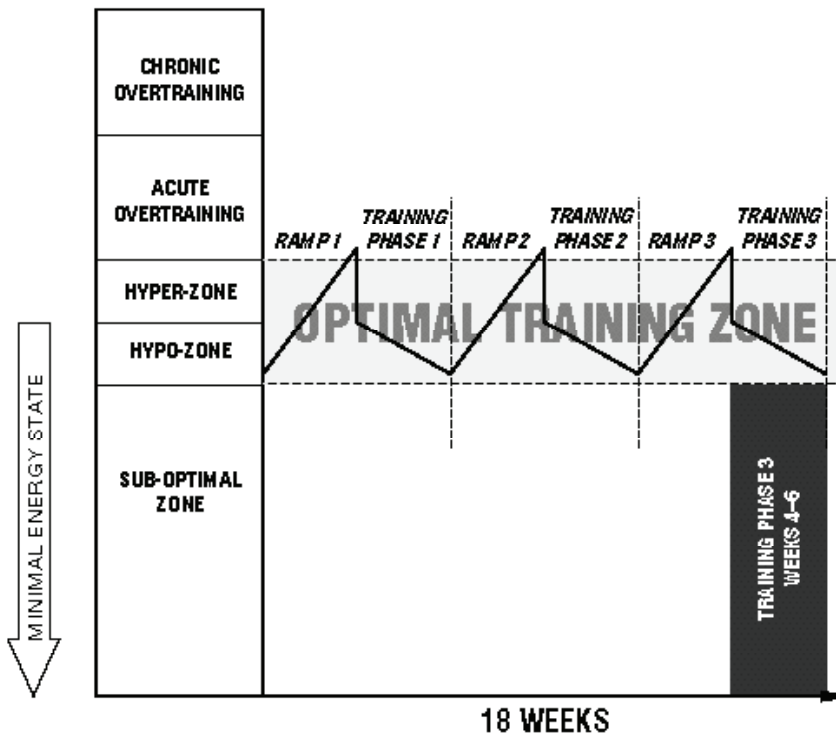
## TRAINING STRESS ZONES



# LEVEL 1 • SUPERGROWTH PHASE 3

	DAY 1	DAY 2	DAY 3	DAY 4
<b>Workout 1</b> ( ) Sets	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Triceps (4) Thighs (4) Abs	(3) Back (3) Chest (3) Thighs (1) Delts (2) Calves (1) Biceps (1) Tricep	(3) Thighs (3) Chest (3) Back (1) Delts (2) Calves (1) Triceps (1) Biceps
<b>Rest Period</b>	60 Seconds	60 Seconds	120 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 4-6 Reps

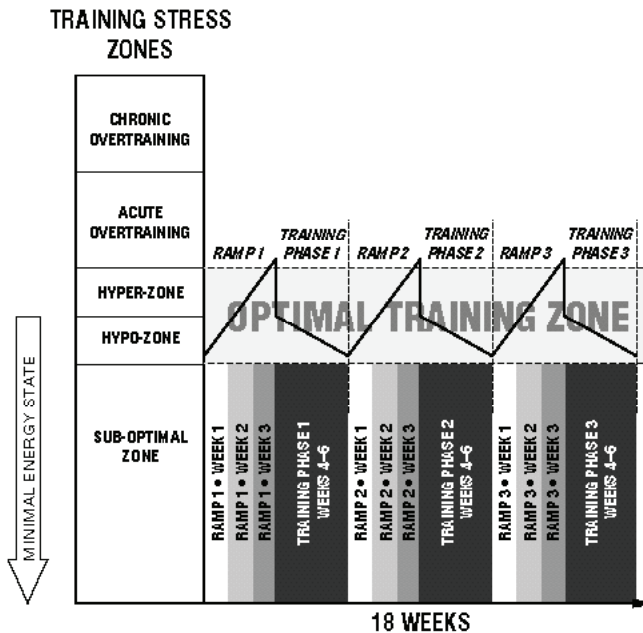
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
One Workout Per Day*

## Ramp 1



## ***RAMP 1 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (3) Bicep (3) Calf	(3) Delts (3) Tris (3) Thighs (3) Abs	(3) Chest (3) Back (3) Bicep (3) Calf	(3) Delts (3) Tris (3) Thighs (3) Abs	(3) Back (3) Chest (3) Calf (3) Bicep	(3) Delts (3) Tris (3) Thighs (3) Abs
<b>Rest Period</b>	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

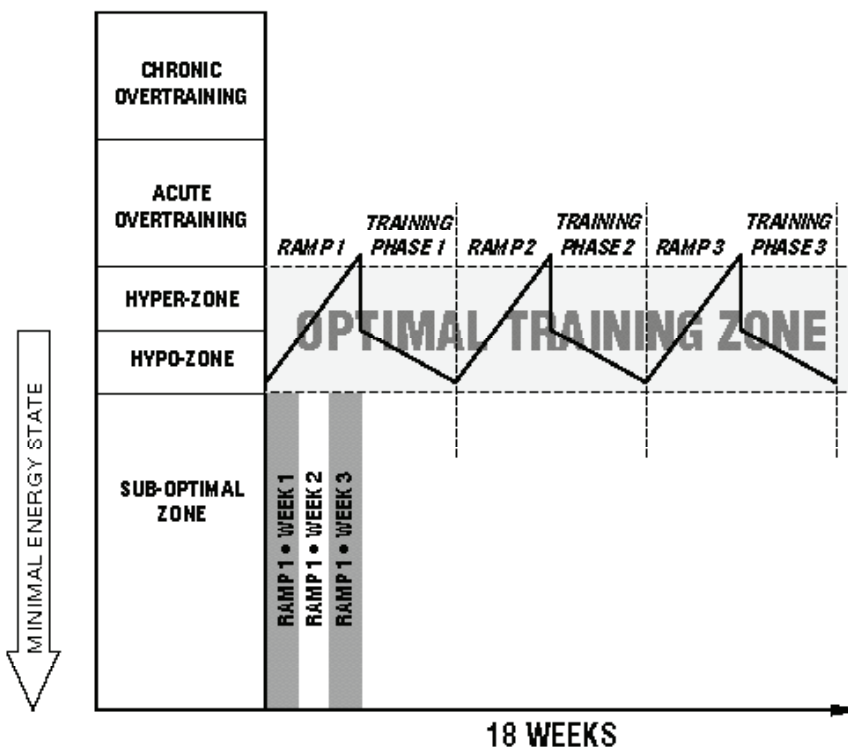
## ***RAMP 1 • WEEK 2***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Tris (4) Thighs (4) Abs	(4) Chest (4) Back (4) Bicep (4) Calf	(4) Delts (4) Tris (4) Thighs (4) Abs	(4) Back (4) Chest (4) Calf (4) Bicep	(4) Delts (4) Tris (4) Thighs (4) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

# RAMP 1 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ( ) Sets	(5) Back (5) Chest (5) Bicep (5) Calf	(5) Delts (5) Tris (5) Thighs (5) Abs	(5) Chest (5) Back (5) Bicep (5) Calf	(5) Delts (5) Tris (5) Thighs (5) Abs	(5) Back (5) Chest (5) Calf (5) Bicep	(5) Delts (5) Tris (5) Thighs (5) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

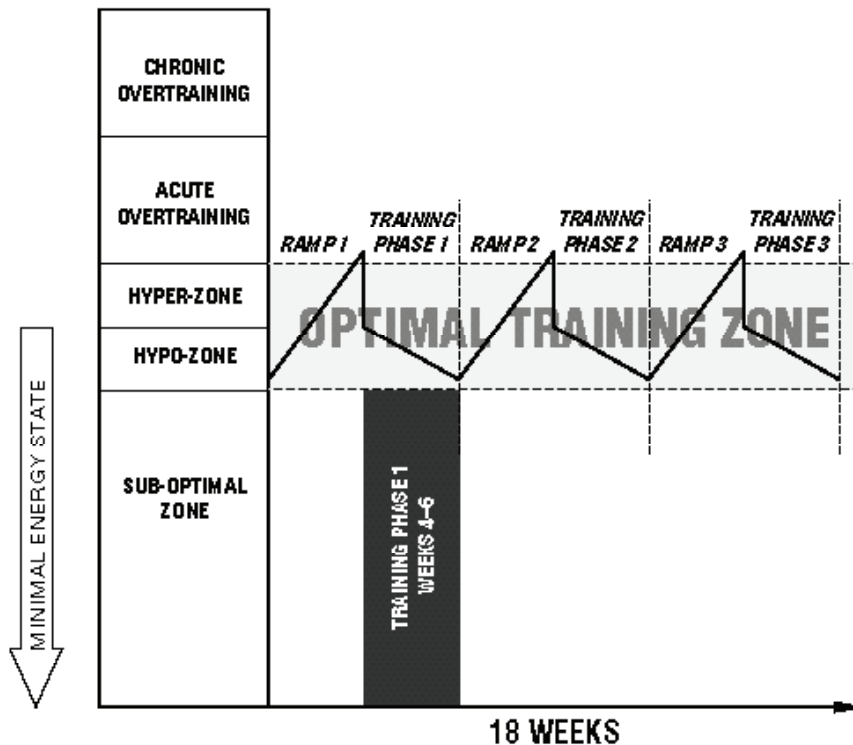
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 1

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(3) Back (3) Chest (3) Biceps (3) Calf	(3) Delts (3) Tricep (3) Thighs (3) Abs	(3) Chest (3) Back (3) Calf (3) Bicep	(3) Thighs (3) Abs (3) Delts (3) Tricep	(3) Back (3) Chest (3) Calf (3) Biceps	(3) Delts (3) Abs (3) Tricep (3) Thighs
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 10-12 Reps	Cycle A Endurance 10-12 Reps	Cycle B Strength 8-10 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 5-7 Reps	Cycle C Power 5-7 Reps

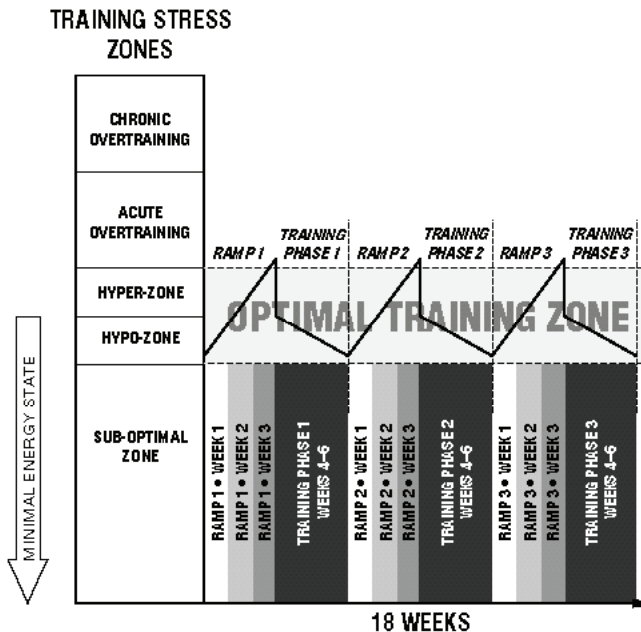
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
One Workout Per Day*

## Ramp 2



## ***RAMP 2 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (3) Thighs (3) Calf (3) Bicep	(3) Chest (3) Back (3) Thighs (3) Calf (2) Tricep	(3) Back (3) Chest (3) Bicep (3) Calf (3) Thighs	(3) Chest (3) Back (2) Tricep (3) Thighs (3) Calf	(3) Back (3) Chest (3) Calf (3) Thighs (2) Bicep	(3) Chest (3) Back (3) Thighs (2) Tricep (3) Calf
<b>Rest Period</b>	150 Seconds	150 Seconds	150 Seconds	150 Seconds	150 Seconds	150 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

## ***RAMP 2 • WEEK 2***

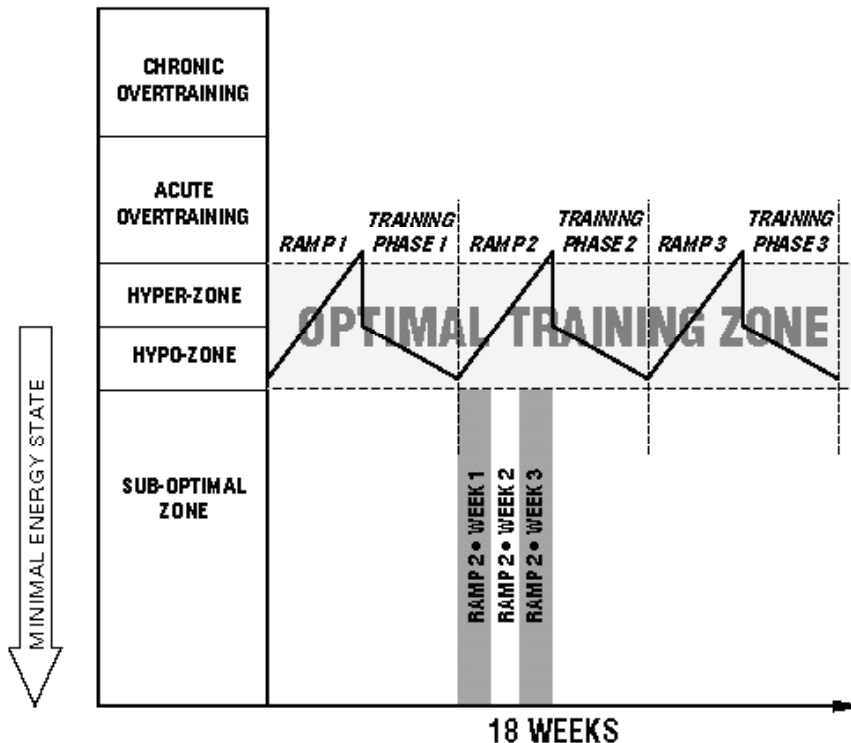
	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (3) Thighs (3) Calf (3) Bicep	(3) Chest (3) Back (3) Thighs (3) Calf (2) Tricep	(3) Back (3) Chest (2) Bicep (3) Calf (3) Thighs	(3) Chest (3) Back (2) Tricep (3) Thighs (3) Calf	(3) Back (3) Chest (3) Calf (3) Thighs (2) Bicep	(3) Chest (3) Back (3) Thighs (2) Tricep (3) Calf
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps



# RAMP 2 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1 ○ Sets</b>	(4) Back (4) Chest (4) Thighs (4) Calf (4) Bicep	(4) Chest (4) Back (4) Thighs (4) Calf (3) Tricep	(4) Back (4) Chest (3) Bicep (4) Calf (4) Thighs	(4) Chest (4) Back (3) Tricep (4) Thighs (4) Calf	(4) Back (4) Chest (4) Calf (4) Thighs (3) Bicep	(4) Chest (4) Back (4) Thighs (3) Tricep (4) Calf
<b>Rest Period</b>	60 Seconds	60 Seconds	60 Seconds	60 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

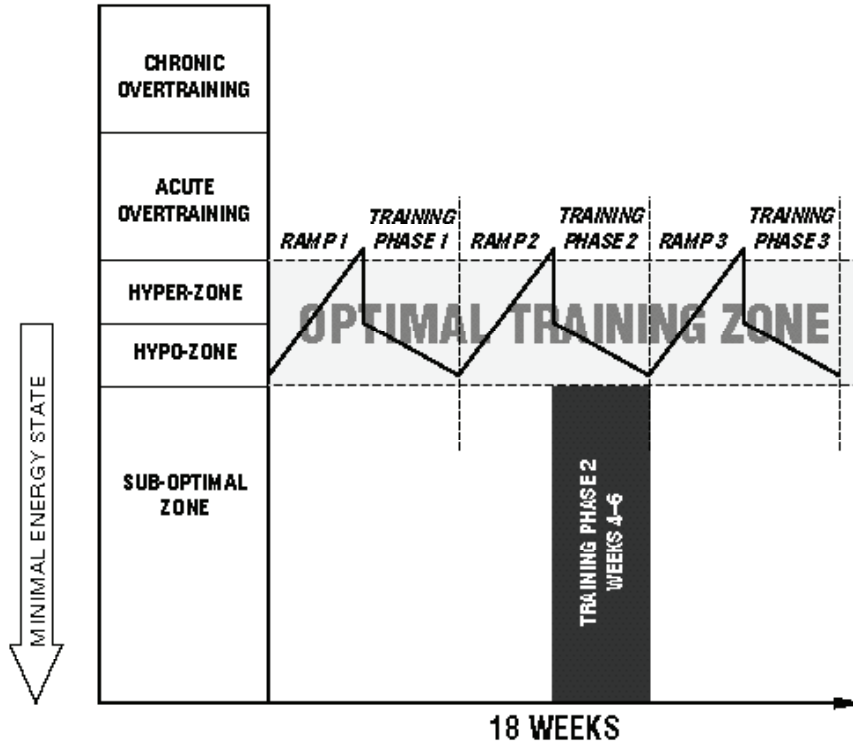
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 2

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1 () Sets</b>	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Tris (4) Thighs (4) Abs	(4) Chest (4) Back (4) Bicep (4) Calf	(4) Delts (4) Tricep (4) Thighs (4) Abs	(4) Back (4) Chest (4) Calf (4) Bicep	(4) Delts (4) Tris (4) Thighs (4) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

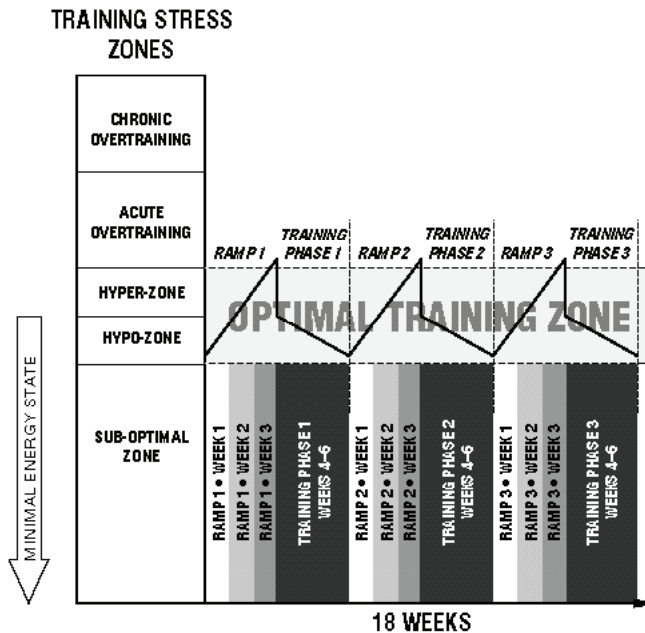
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
One Workout Per Day*

## Ramp 3



## ***RAMP 3 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (4) Bicep (3) Calf	(4) Delts (4) Tris (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (3) Calf	(3) Chest (3) Calf (3) Back (3) Thighs	(3) Back (3) Chest (3) Calf (3) Bicep	(3) Chest (3) Back (3) Thighs (3) Calf
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

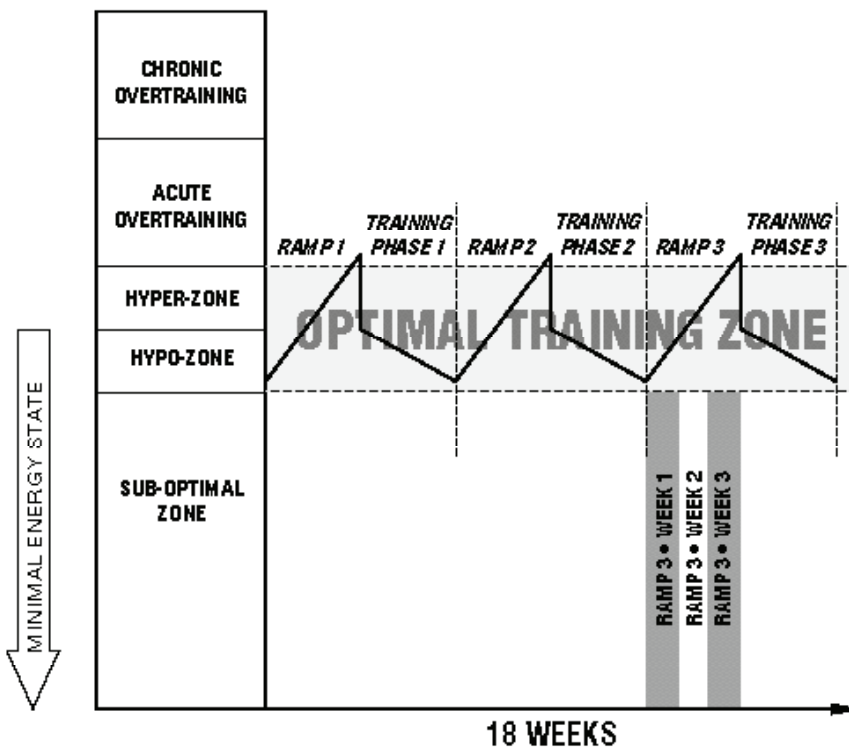
## ***RAMP 3 • WEEK 2***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1 () Sets</b>	(3) Back (3) Chest (4) Bicep (3) Calf	(4) Delts (4) Tris (3) Thighs (3) Abs	(3) Back (3) Chest (3) Thighs (3) Calf	(3) Chest (3) Calf (3) Back (3) Thighs	(3) Back (3) Chest (3) Calf (3) Thighs	(3) Chest (3) Back (3) Thighs (3) Calf
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	90 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

# RAMP 3 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> <b>( ) Sets</b>	(4) Back (4) Chest (5) Bicep (4) Calf	(5) Delts (5) Tris (4) Thighs (4) Abs	(4) Back (4) Chest (4) Thighs (4) Calf	(4) Chest (4) Calf (4) Back (4) Thighs	(4) Back (4) Chest (4) Calf (4) Thighs	(4) Chest (4) Back (4) Thighs (4) Calf
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	90 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

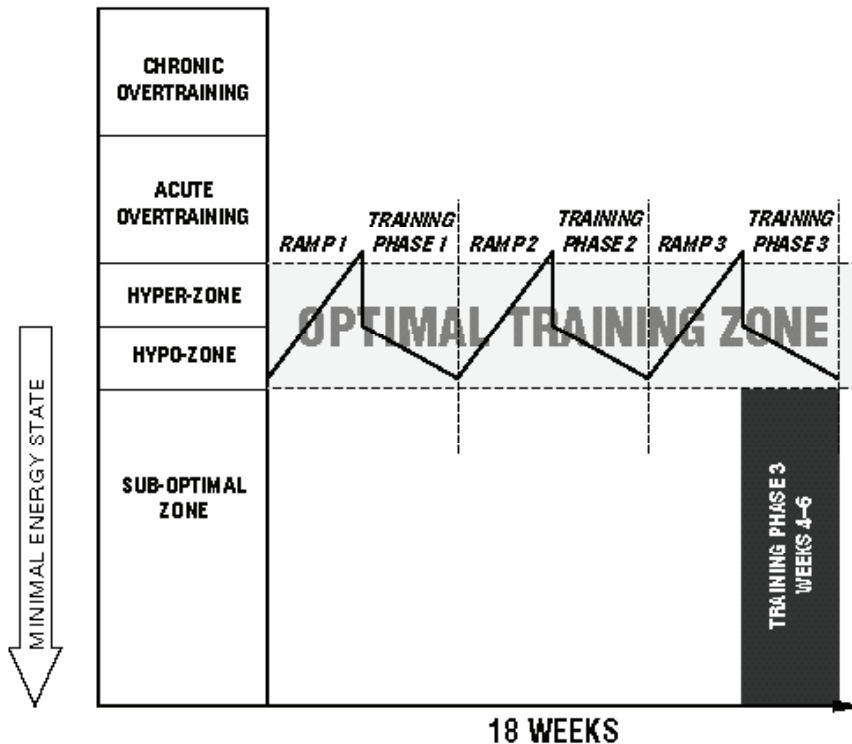
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(4) Back (4) Chest (4) Bicep (4) Calf	(4) Delts (4) Tris (4) Thighs (4) Abs	(3) Chest (3) Back (3) Calf (3) Bicep	(3) Thighs (3) Abs (3) Delts (3) Triceps	(3) Back (3) Chest (3) Calf (3) Biceps	(3) Delts (3) Abs (3) Tricep (3) Thighs
<b>Rest Period</b>	60 Seconds	60 Seconds	120 Seconds	120 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 8-10 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 4-6 Reps	Cycle C Power 4-6 Reps

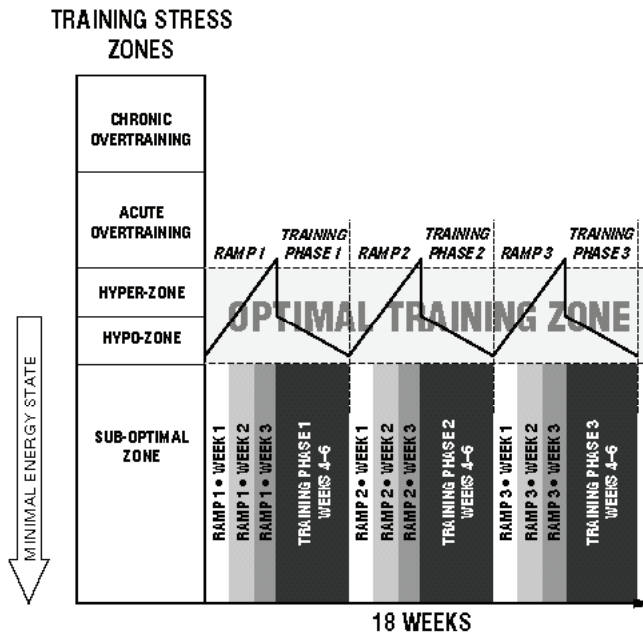
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
Two Workouts Per Day*

## Ramp 1



## ***RAMP 1 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ( ) Sets	(9) Back (9) Calf	(5) Delts (3) Traps (9) Tris	(9) Back (9) Calf	(5) Delts (3) Traps (9) Tris	(9) Back (9) Calf	(5) Delts (3) Traps (8) Tris
<b>Workout 2</b> ( ) Sets	(9) Chest (9) Bicep	(9) Thigh (3) Abs	(9) Chest (9) Bicep	(9) Thigh (4) Abs	(9) Chest (9) Bicep	(9) Thigh (4) Abs
<b>Rest Period</b>	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

## ***RAMP 1 • WEEK 2***

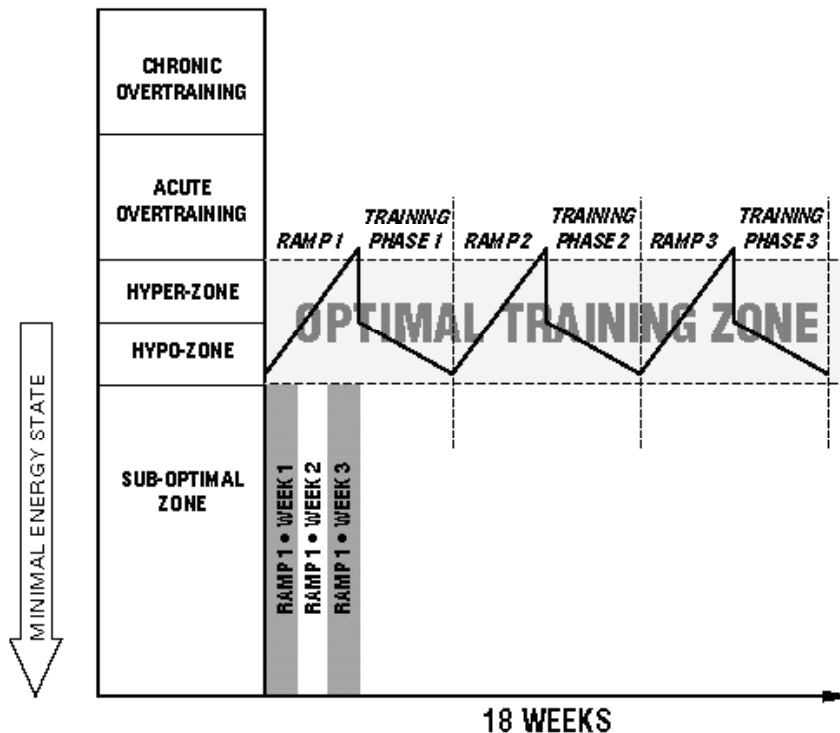
	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ( ) Sets	(10) Back (10) Calf	(6) Delts (3) Traps (10) Tris	(10) Back (10) Calf	(6) Delts (3) Traps (10) Tris	(10) Back (10) Calf	(6) Delts (3) Traps (10) Tris
<b>Workout 2</b> ( ) Sets	(10) Chest (10) Bicep	(10) Thigh (4) Abs	(10) Chest (10) Bicep	(10) Thigh (4) Abs	(10) Chest (10) Bicep	(10) Thigh (4) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps



# RAMP 1 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ( ) Sets	(12) Back (12) Calf	(8) Delts (4) Traps (12) Tris	(12) Back (12) Calf	(8) Delts (4) Traps (12) Tris	(12) Back (12) Calf	(8) Delts (4) Traps (12) Tris
<b>Workout 2</b> ( ) Sets	(12) Chest (12) Bicep	(12) Thigh (5) Abs	(12) Chest (12) Bicep	(12) Thigh (5) Abs	(12) Chest (12) Bicep	(12) Thigh (5) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

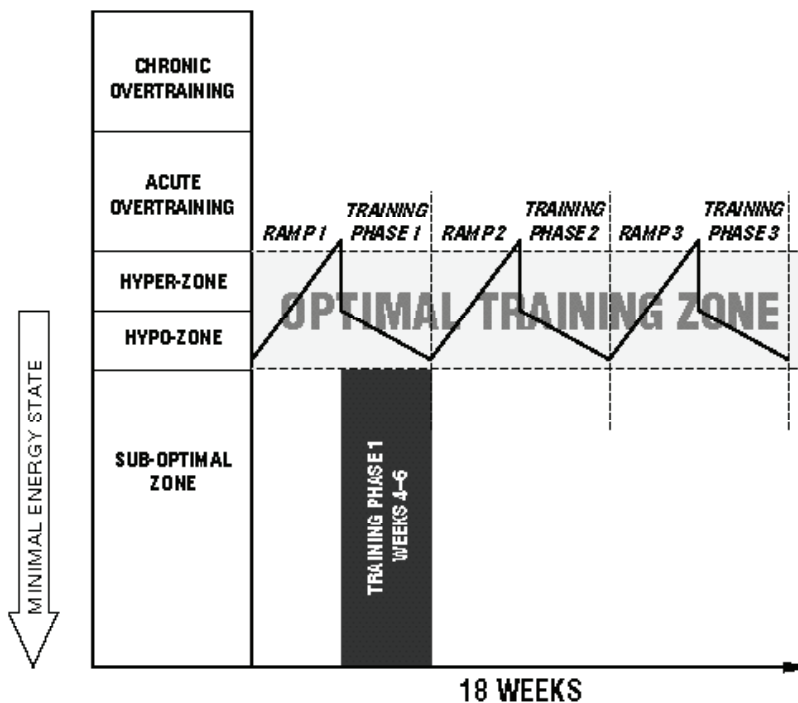
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 1

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(4) Back (4) Calf	(4) Delts (1) Traps (4) Tris	(4) Back (4) Calf	(4) Delts (1) Traps (4) Tris	(4) Back (4) Calf	(4) Delts (1) Traps (4) Tris
<b>Workout 2</b> ○ Sets	(4) Chest (4) Bicep	(4) Thigh (3) Abs	(4) Chest (4) Bicep	(4) Thigh (3) Abs	(4) Chest (4) Bicep	(4) Thigh (3) Abs
<b>Rest Period</b>	4 Minutes	4 Minutes	4 Minutes	4 Minutes	4 Minutes	4 Minutes
<b>Number of Repetitions</b>	Cycle A Endurance 10-12 Reps	Cycle A Endurance 10-12 Reps	Cycle B Strength 8-10 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 5-7 Reps	Cycle C Power 5-7 Reps

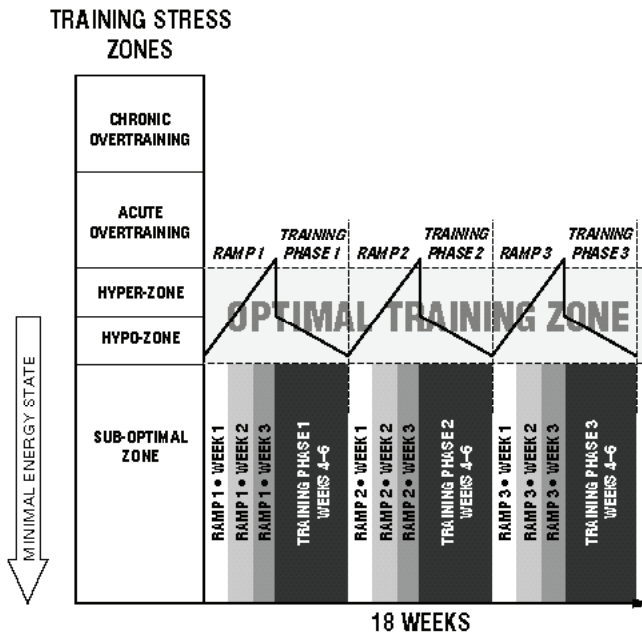
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
Two Workouts Per Day*

## Ramp 2



## ***RAMP 2 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ○ Sets	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf
<b>Workout 2</b> ○ Sets	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

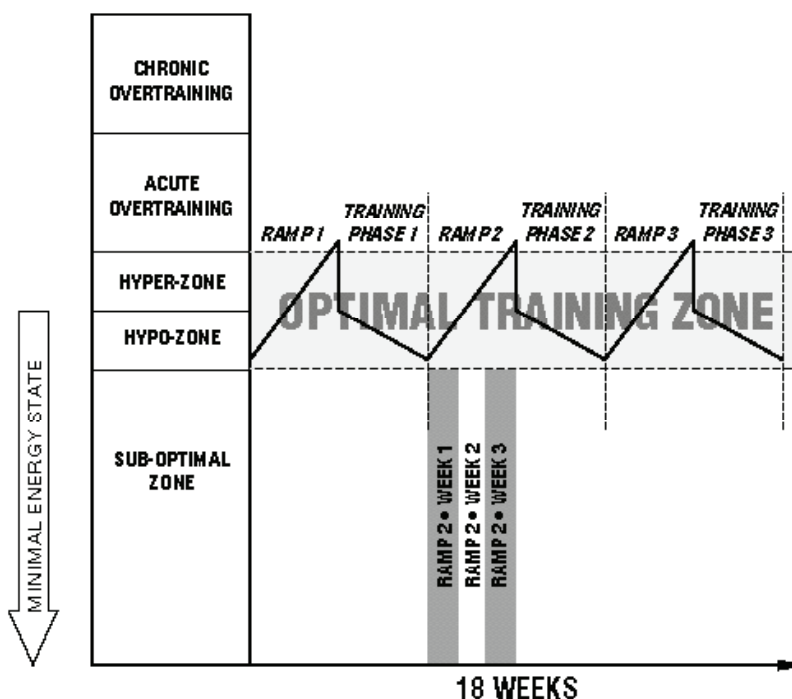
## ***RAMP 2 • WEEK 2***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ○ Sets	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf
<b>Workout 2</b> ○ Sets	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs
<b>Rest Period</b>	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds	120 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

# RAMP 2 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf
<b>Workout 2</b> ○ Sets	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

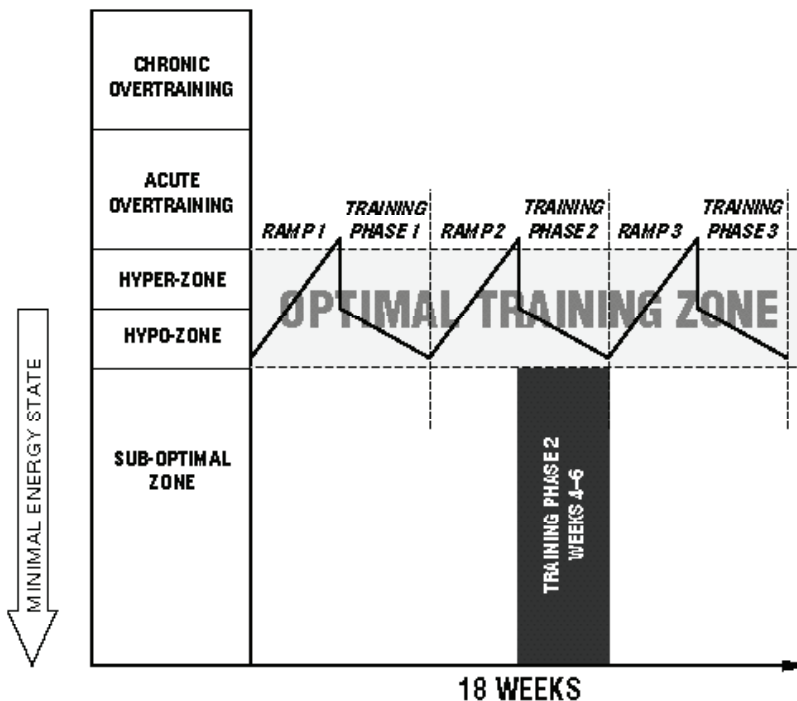
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 2

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(9) Back (9) Calf	(6) Delts (3) Traps (9) Tricep	(9) Back (9) Calf	(6) Delts (3) Traps (9) Tricep	(9) Back (9) Calf	(6) Delts (3) Traps (9) Tricep
<b>Workout 2</b> ○ Sets	(9) Chest (9) Bicep	(9) Thigh (7) Abs	(9) Chest (9) Bicep	(9) Thigh (7) Abs	(9) Chest (9) Bicep	(9) Thigh (7) Abs
<b>Rest Period</b>	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds	90 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

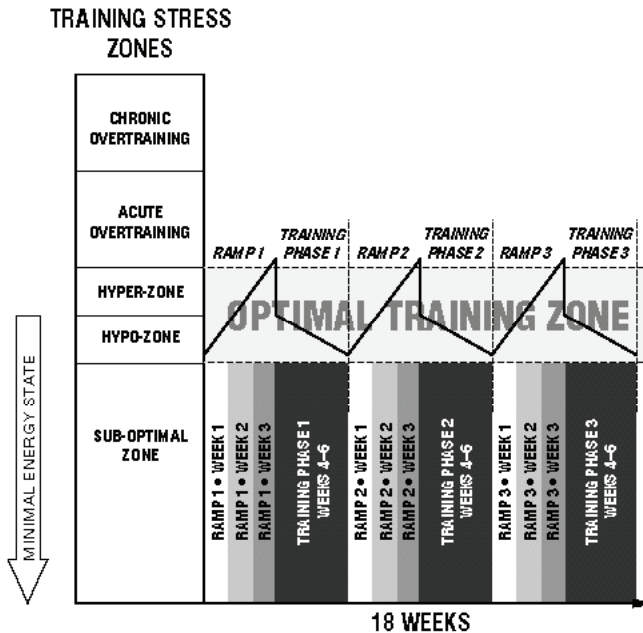
## TRAINING STRESS ZONES



# Level One Training

*Six Days Per Week  
Two Workouts Per Day*

## Ramp 3



## ***RAMP 3 • WEEK 1***

	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ○ Sets	(7) Chest (7) Bicep	(7) Thighs (4) Abs	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf
<b>Workout 2</b> ○ Sets	(7) Back (7) Calf	(6) Delts (3) Traps (6) Triceps	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs
<b>Rest Period</b>	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds	180 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

## ***RAMP 3 • WEEK 2***

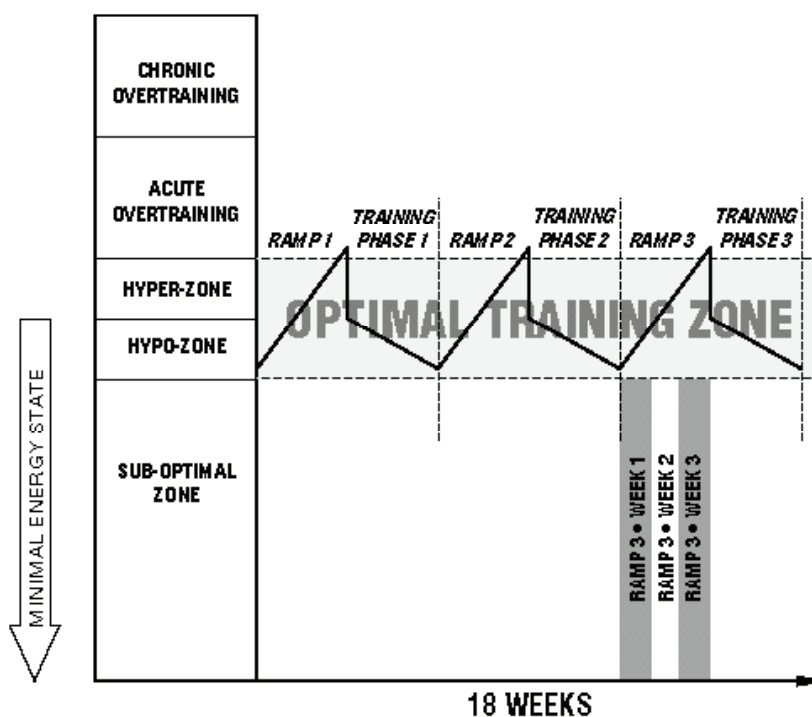
	<b>DAY 1</b>	<b>DAY 2</b>	<b>DAY 3</b>	<b>DAY 4</b>	<b>DAY 5</b>	<b>DAY 6</b>
<b>Workout 1</b> ○ Sets	(7) Chest (7) Bicep	(7) Thighs (4) Abs	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf
<b>Workout 2</b> ○ Sets	(7) Back (7) Calf	(6) Delts (3) Traps (6) Triceps	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	90 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps



# RAMP 3 • WEEK 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(8) Chest (8) Bicep	(8) Thighs (5) Abs	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf	(5) Back (5) Chest (4) Bicep (4) Calf
<b>Workout 2</b> ○ Sets	(8) Back (8) Calf	(7) Delts (4) Traps (7) Triceps	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs	(5) Delts (5) Tricep (5) Thighs
<b>Rest Period</b>	120 Seconds	120 Seconds	90 Seconds	90 Seconds	60 Seconds	60 Seconds
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 10-12 Reps	Cycle B Strength 10-12 Reps	Cycle C Power 8-10 Reps	Cycle C Power 8-10 Reps

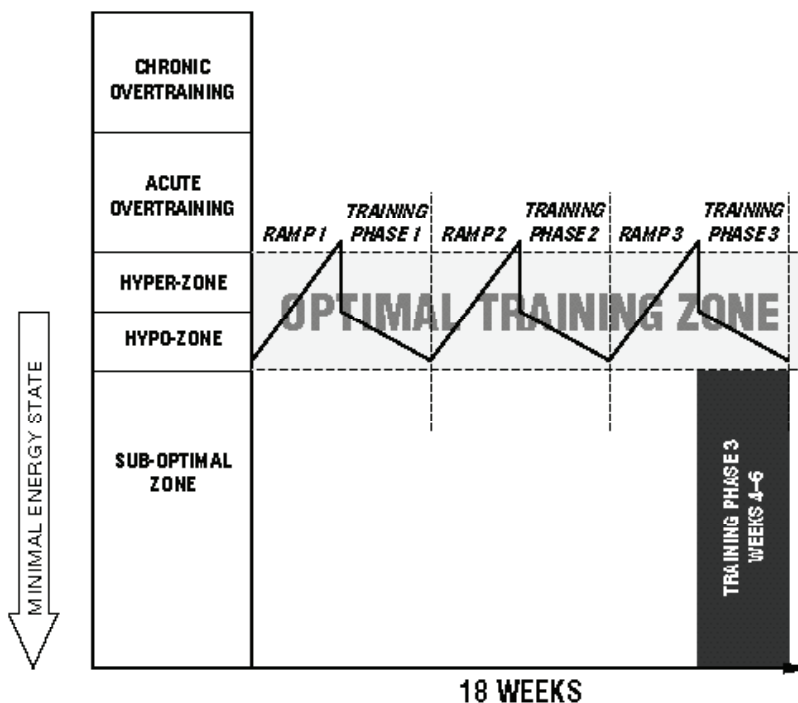
## TRAINING STRESS ZONES



# LEVEL 1 • TRAINING PHASE 3

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
<b>Workout 1</b> ○ Sets	(9) Back (9) Calf	(6) Delts (3) Traps (9) Tricep	(9) Chest (9) Bicep	(6) Delts (3) Traps (9) Tricep	(4) Back (4) Chest (3) Bicep (3) Calf	(4) Back (4) Chest (3) Bicep (3) Calf
<b>Workout 2</b> ○ Sets	(9) Chest (9) Bicep	(9) Thighs (7) Abs	(9) Back (9) Calf	(9) Thighs (3) Abs	(9) Delts (4) Tricep (4) Thighs	(4) Delts (4) Tricep (4) Thighs
<b>Rest Period</b>	60 Seconds	60 Seconds	120 Seconds	120 Seconds	4 Minutes	4 Minutes
<b>Number of Repetitions</b>	Cycle A Endurance 13-15 Reps	Cycle A Endurance 13-15 Reps	Cycle B Strength 8-10 Reps	Cycle B Strength 8-10 Reps	Cycle C Power 5-7 Reps	Cycle C Power 5-7 Reps

## TRAINING STRESS ZONES



# ***Level Two Training***

# LEVEL TWO • 4 DAYS PER WEEK

	<b>BODY PART</b>	<b>NUMBER OF SETS</b>	<b>NUMBER OF REPETITIONS</b>	<b>REST PERIOD</b>
<b>DAY 1</b> Endurance	Chest	3 Sets	20-24 Reps	3 Minute Rest
	Triceps	3 Sets	30-40 Reps	4 Minute Rest
	Thighs	2 Sets	35-50 Reps	7 Minute Rest
<b>DAY 2</b> Endurance	Back	3 Sets	40-50 Reps	4 Minute Rest
	Shoulders	3 Sets	20-25 Reps	3 Minute Rest
	Biceps	2 Sets	30-40 Reps	3 Minute Rest
	Calves	2 Sets	35-45 Reps	3 Minute Rest
<b>DAY 3</b> Active Recovery	Thighs	3 Sets	10-12 Reps	90 Second Rest
	Chest	3 Sets	10-12 Reps	90 Second Rest
	Back	3 Sets	10-12 Reps	90 Second Rest
	Shoulders	3 Sets	10-12 Reps	90 Second Rest
	Calves	3 Sets	10-12 Reps	60 Second Rest
	Triceps	3 Sets	10-12 Reps	60 Second Rest
	Biceps	3 Sets	10-12 Reps	60 Second Rest
<b>DAY 4</b> Intensity Day	Chest	4 Sets	3-5 Reps	60 Second Rest
	Back	4 Sets	4-6 Reps	60 Second Rest
	Shoulders	3 Sets	5-7 Reps	60 Second Rest
	Thighs	4 Sets	3-4 Reps	90 Second Rest
	Calves	4 Sets	5-7 Reps	60 Second Rest
	Biceps	3 Sets	4-6 Reps	60 Second Rest
	Triceps	3 Sets	4-6 Reps	60 Second Rest

## ***LEVEL TWO • 6 DAYS PER WEEK***

	<b>BODY PART</b>	<b>NUMBER OF SETS</b>	<b>NUMBER OF REPETITIONS</b>	<b>REST PERIOD</b>
<b>DAY 1</b> Endurance	Chest	3 Sets	20-24 Reps	3 Minute Rest
	Triceps	3 Sets	30-40 Reps	4 Minute Rest
	Thighs	2 Sets	35-50 Reps	7 Minute Rest
<b>DAY 2</b> Endurance	Back	3 Sets	40-50 Reps	4 Minute Rest
	Shoulders	3 Sets	20-25 Reps	3 Minute Rest
	Biceps	2 Sets	30-40 Reps	3 Minute Rest
	Calves	2 Sets	35-45 Reps	3 Minute Rest
<b>DAY 3</b> Active Recovery	Thighs	3 Sets	10-12 Reps	90 Second Rest
	Chest	3 Sets	10-12 Reps	90 Second Rest
	Triceps	3 Sets	10-12 Reps	90 Second Rest
<b>DAY 4</b> Active Recovery	Back	3 Sets	10-12 Reps	90 Second Rest
	Calves	3 Sets	10-12 Reps	90 Second Rest
	Biceps	3 Sets	10-12 Reps	90 Second Rest
	Shoulders	3 Sets	10-12 Reps	90 Second Rest
<b>DAY 5</b>	Chest	8 Sets	3-5 Reps	60 Second Rest
	Triceps	6 Sets	4-6 Reps	60 Second Rest
	Thighs	6 Sets	3-4 Reps	90 Second Rest
<b>DAY 6</b>	Back	8 Sets	4-6 Reps	60 Second Rest
	Shoulders	6 Sets	5-7 Reps	60 Second Rest
	Biceps	6 Sets	4-6 Reps	60 Second Rest
	Calves	6 Sets	5-7 Reps	60 Second Rest

# ***LEVEL TWO • 6 DAYS PER WEEK 2 WORKOUTS PER DAY***

	<b>BODY PART</b>	<b>NUMBER OF SETS</b>	<b>NUMBER OF REPETITIONS</b>	<b>REST PERIOD</b>
<b>DAY 1</b> 1st Workout Endurance	Chest	8 Sets	20-24 Reps	3 Minute Rest
	Triceps	3 Sets	30-40 Reps	3 Minute Rest
<b>DAY 1</b> 2nd Workout Endurance	Thighs	2 Sets	30-50 Reps	7 Minute Rest
<b>DAY 2</b> 1st Workout Endurance	Back	6 Sets	40-50 Reps	4 Minute Rest
<b>DAY 2</b> 2nd Workout Endurance	Shoulders	4 Sets	20-25 Reps	3 Minute Rest
	Biceps	3 Sets	30-40 Reps	3 Minute Rest
	Calves	3 Sets	35-45 Reps	3 Minute Rest
<b>DAY 3</b> Active Recovery	Thighs	3 Sets	10-12 Reps	90 Second Rest
	Chest	3 Sets	10-12 Reps	90 Second Rest
	Triceps	3 Sets	10-12 Reps	90 Second Rest
<b>DAY 4</b> Active Recovery	Back	3 Sets	10-12 Reps	90 Second Rest
	Calves	3 Sets	10-12 Reps	90 Second Rest
	Biceps	3 Sets	10-12 Reps	90 Second Rest
	Shoulders	3 Sets	10-12 Reps	90 Second Rest
<b>DAY 5</b> 1st Workout	Chest	12 Sets	3-5 Reps	60 Second Rest
	Triceps	8 Sets	4-6 Reps	60 Second Rest
<b>DAY 5</b> 2nd Workout	Thighs	8 Sets	3-4 Reps	90 Second Rest
<b>DAY 6</b> 1st Workout	Back	12 Sets	4-6 Reps	60 Second Rest
<b>DAY 6</b> 2nd Workout	Shoulders	8 Sets	5-7 Reps	60 Second Rest
	Biceps	8 Sets	4-6 Reps	60 Second Rest
	Calves	10 Sets	5-7 Reps	60 Second Rest

## LEVEL THREE—INSTINCTIVE TRAINING

Once you understand the principles of hyperacceleration and hyperadaptation, have gone through Level One training, and have experienced the Level Two program you can begin to create your own program. You are now in condition, have absorbed the training concepts, and can piece them together in the way you find them to be most effective. You are ready for instinctive training.

A caution: Instinctive training does not mean to train according to how you feel. Instinctive training is based upon intuition, and intuition can only be gained through experience. This is why you must experience Level One and Level Two training. They give you the tools to make instinctive training work. There is a big misconception out there that if you are sore, you are not recovered. In fact, soreness is not an efficient indicator of recovery.

Training is like eating. You do not wait until you are starving, and all the food has been processed by your system, before you eat again. In the same way, there is no reason to wait until you are totally without soreness to continue training. Many times you will find yourself coming to the gym feeling like a train wreck, but, if you have instinctive training dialed in, you will know it is a day to push your efforts to the absolute edge of total exhaustion.

It is important, of course, to have objective devices to measure your progress. This can involve using calipers to measure body fat (as we discuss in chapter 11, “Monitoring Your Progress”) or the tape measure. If you are looking for a 19<sup>↑</sup> arm or want to gain 20 pounds without carrying any more body fat, progress can be measured easily. Similarly, it is relatively easy to measure for strength gains. It is important to set measurable goals and stay away from a vague, subjective, and ultimately frustrating approach.

When you quit making measurable progress, you will know you have either entered the Sub-Optimal or Overtraining Zones and are not training at high efficiency. If you have gone into Chronic Overtraining you will know by the symptoms you will begin to exhibit (see chapter 8 on “Recovery” for a list of these). At this time, you will want to proceed to a hyperadaptation phase.

Likewise, if you have plateaued you will know it is time to go to hyperacceleration training by ramping up or moving to Level Two training. When you stagnate, you have to determine what the problem is and act to correct it. This should be a fluid process and changes should be made without hesitation. If progress is slowing, go immediately to a hyperaccelerated or hyperadaptive phase. Do not wait around.

Measurable progress also combines with *body sense* in instinctive training. After Level One training, you will know what ramp 1, 2, and 3 feel like. You will know by the way you feel whether it is time to do a ramp 2 which sets you up for high-rep endurance training or ramp 1 which gets you ready for lower-rep intensity training. This mixture of objective measurement and a body sense learned through experience can be a potent force in muscle growth.

Again we caution you not to advance to Level Three training until you are ready. Much as a child must learn to add before going on to multiplication and division, so must you acquire

the necessary body sense by paying your dues in Level One and Level Two training.

But when you are ready, move on to a more instinctive approach. Using Level One and Level Two training and our model, you will be able to create and customize an individualized program that will work best. We provide no charts for Level Three training because it is uncharted territory. You will have to explore. In short, Level Three training involves you drawing up your own charts.



## ADVANCED TECHNIQUES

### Take Your Sets To The End

Before advancing to any of the extension techniques which we will explain next, a bodybuilder has to learn how to get the maximum number of repetitions out of the original set. Many bodybuilders do not go all-out on their last repetitions. They do not take a set to complete momentary exhaustion.

This does not mean going to failure where you bail out on the rep. It just means taking your sets to the end or the last full-repetition possible. Too many people resort to a set-extension technique (i.e. forced reps, negative reps, etc.) without getting that last rep possible. All they are doing is cheating themselves.

We cannot emphasize this point enough. Again, to perform a set properly it has to be taken to the VERY LAST REPETITION POSSIBLE.

### SET-EXTENDERS

If you have gotten everything out of a set, and gone to complete momentary exhaustion, you may want to give the following set-extension techniques a try as a way to press the outside of the envelope, and get the most stress possible on muscle tissue. Just keep in mind that they should all be executed with a great deal of discretion and care. The possibility of injury is greatly increased with set-extendors. As such, they should be performed with a spotter or training partner.

**1. Forced Reps:** Have your partner give you just enough help to get 2-3 more repetitions out of the set. This is an excellent technique for maximizing stress, but it is often misused. Many bodybuilders go immediately into forced reps early in their training without learning how to do maximum reps or go to complete momentary exhaustion on their own. Most elite bodybuilders claim they can only do forced reps a couple of times a week, and only on a few exercises. Still, you see the kids in the gym doing forced reps on every exercise. Because they are not taking their sets to complete momentary exhaustion, they are making forced reps much easier than they should be and limiting their effectiveness. Like all set extendors, forced reps should be used selectively. If you can imagine a gun pointed to your head and find yourself capable of another rep, do it before going on to the set extender.

**2. Power Reps:** Loosen up your form so you can squeeze 2-3 more reps out of each set. These used to be called “cheating reps”, but as pointed out by bodybuilder Don Ross (who coined the term “power rep”), the cheating-rep name is misleading. This does not involve picking up heavy weight and cheating with it. It involves using heavier weight and being able to go farther into a set to maximize growth potential. Far from cheating, it is a legitimate set-extender.

**3. Descending Reps:** When you have achieved complete exhaustion quickly (without any rest) select a lighter weight and immediately perform a few more reps. You can repeat this procedure several times in the same set, dropping down 2-4 times.

**4. Giant Set:** After completing a set, immediately begin another set using a different exercise that works the same muscle.

Again, the set extension techniques above are to be used selectively. They should not be a part of the foundation of your training program.

## **JUMP SETS**

This is a remarkable technique for increasing the intensity of your training. As a rule, there is an inverse relationship between volume and intensity. When you increase intensity, volume goes down. Likewise, when you increase volume, intensity will go down. Jump sets allow you to get around this rule.

Usually, when you perform several sets of an exercise for a muscle group, you find yourself progressively losing strength from set to set. You are forced to drop weight off the bar to reach the target repetition range, and this lowers the intensity of your training session. But with jump sets, the rule that says “intensity has to be sacrificed for volume” is suspended. **JUMP SETS ALLOW YOU TO ADD INTENSITY, WHILE KEEPING VOLUME AT THE SAME LEVEL.**

Say, for example, you are training your chest and back, five sets of each. You can start your jump set by performing three sets of weighted-dips for the chest then move to three sets of chins for the back. Then you go back and do the final two sets of weighted-dips for the chest and follow with the final two chin-sets for your back.

The workout looks like this:

Chest,	Set 1, Weighted Dips,	followed by prescribed rest period.
Chest,	Set 2, Weighted Dips,	followed by prescribed rest period.
Chest,	Set 3, Weighted Dips,	followed by prescribed rest period.

Then jump to:

Back,	Set 1, Wide Grip Chins,	followed by prescribed rest period.
Back,	Set 2, Wide Grip Chins,	followed by prescribed rest period.
Back,	Set 3, Wide Grip Chins,	followed by prescribed rest period.

Then jump back to:

Chest,	Set 4, Weighted Dips,	followed by prescribed rest period.
Chest,	Set 5, Weighted Dips,	followed by prescribed rest period.

And:

Back, Set 4, Wide Grip Chins, followed by prescribed rest period.

Back, Set 5, Wide Grip Chins, followed by prescribed rest period.

In the above example, your chest and back will rest enough so that you will be able to use heavier weights on the latter sets than you normally would if you performed them straight through. The workout time is the same, sets the same, and rest periods the same. The overall intensity level, however, is much higher for each exercise because you are resting a body part when you jump to another.

## **SUPERSETS**

Supersets comprise the combination of two different exercises, each training a different body part, moving from one set to the next with no rest in between the sets. A superset would consist of:

Chest, Set 1, Weighted Dips, no rest

Back, Set 1, Wide Grip Chins, no rest

Chest, Set 2, Weighted Dips, no rest

Back, Set 2, Wide Grip Chins, no rest

And so on as with the modified compound set.

Part of the popularity of supersets comes from the “pump” the athlete receives while performing them. When the body is not allowed to rest during exercise, it becomes starved for oxygen. When this happens, blood vessels open up to improve oxygen transport from the lungs through the blood to the muscle cells.

## **MODIFIED COMPOUND SETS**

The modified compound set is similar to the jump set. It allows for training two body-parts simultaneously and quickly. It is not the boon to training the jump set can be, and volume will be affected, but it is still used by many bodybuilders.

Modified Compound Sets are similar to Super Sets. The only difference is that you take the prescribed rest between each set. Using the same previous example as in Super Sets, Modified Compound Sets would look like the following:

Chest, Set 1, Weighted Dips, rest one minute

Back, Set 1, Wide Grip Chins, rest one minute

Chest, Set 2, Weighted Dips, rest one minute

Back, Set 2, Wide Grip Chins, rest one minute

And so on to completion.

## GIANT SETS

Giant Sets are also similar to Supersets. Giant Sets incorporate two or more exercises that work the *same* muscle group with no rest allowed between the different exercises.

## RANGE OF MOTION

If you have ever worked with a personal trainer or taken some kind of weight training instruction you have heard that old pearl of wisdom: “Take the muscle through the full range of motion.” It is a nice sounding phrase and, to a degree, inspiring, but what does it really mean?

The fact is, there are four different ways you can look at *range of motion*, and only one of those makes much sense for the bodybuilder.

First off, there is *anatomical range of motion*. Anatomical range of motion refers to the range of motion of a joint. It concerns the total area a joint can be moved through and, for the bodybuilder, it has little importance. There is no way you can move the kind of weight you need for muscle development through space, while utilizing the entire range of the joint. Every once in awhile, you will find an exercise like a standing calf-raise where you can move the joint through its entire range, but this exercise is very much an exception to the rule.

Likewise, *muscle range of motion* is largely an impractical concept for the bodybuilder. Full muscle range of motion involves stretching a muscle to full extension and bringing it back the opposite direction to its full contraction. Finding exercises that will provide this kind of range is difficult, if not impossible. Again, the standing calf-raise would provide a full muscle range of motion but you will be hard pressed to find many other exercises that do.

Take the bench-press, for instance. Most people do bench-presses to target the pecs, but the only way you could get full muscle range of motion with a bench-press would be by bringing your elbows above and behind your shoulders (for complete extension) and then back to a place in front of the rib cage (for complete contraction). This would require a very complex machine or pulley system. Even then, the full exercise could never be performed with enough weight to produce much growth.

Similarly, the bent-over row is a great compound exercise, but there is no way it will take the lats through a full muscle range of motion. Full range would require lifting your elbows behind your neck and bringing them all the way down to behind your lower back and this cannot be effectively done. Most exercises just will not hit all the angles you need for full muscle range of motion, and modifying them for this purpose would be little more than an exercise in futility.

Most of the time when you hear the term “range of motion” being used by the *experts*, it refers to *exercise range of motion*. This is the range of motion a muscle goes through using the blueprint, or set of guidelines, for the proper execution of an exercise. For instance, the bench-press is most popularly performed by:

1. Bringing the bar down slowly in a controlled manner.

2. Touching, but not bouncing, off the chest.
3. Pressing the weight back up, keeping the bar even and balanced, and locking-out at the elbows.

If you are just being introduced to the exercise, this is the kind of instruction you will get. If you get to the end of a rep having done the above, you will figure you have done it correctly, but have you?

As pointed out in the previous chapter on Level Four training, there is absolutely no truth to the belief that a muscle can be properly and effectively stimulated only by being taken through the full muscle or exercise range of motion. In fact, the opposite is most often true. If you are concerned with muscle range of motion, you will end up using only the weight for an exercise that can be handled by the weakest part of that muscle. This will severely limit intensity and growth.

As for full exercise range of motion you have to ask yourself why it is you are in the gym. Are you there to squat or curl the most weight you can? Are you there to do every exercise in the way it was first taught?

While the above questions would be answered “yes” by a power lifter or some kind of gym robot, they would have to be answered “no” by the serious bodybuilder. The bodybuilder is not interested in who can bench-press the most weight, or who can do the exercise perfectly by the book. They are there to get the biggest pecs.

Bodybuilders know that, up on the stage, nobody is going to ask them for exercise instruction or how much they can bench-press. They are looking for growth, period!

Bottom line, most exercises should not be performed with the idea of getting the muscle through a full range of motion. In most cases, an exercise only takes a muscle through a partial range of motion anyway. As discussed above, the bench-press only takes the pecs through a partial range of motion. The military-press only takes the delts through a partial range of motion. The bent-over row only takes the lats through a partial range of motion. It is the same with almost every exercise you will do.

## **TARGET RANGE OF MOTION**

With this in mind, what we should be focusing on is *target range of motion*. This centers all the training stress in an exercise on the particular muscle you want to build. It's done through the use of partial reps.

For instance, the bench-press is a compound exercise that works the chest, triceps, shoulders and other stabilizing muscles. Pressing from the chest upwards through the first  $\frac{3}{4}$  of the movement targets the chest very well. The last  $\frac{1}{4}$  of the movement works mostly the triceps.

If you are performing the bench-press to build your chest, why should you waste valuable time and effort on the last  $\frac{1}{4}$  of the movement that targets the triceps? Why not just do  $\frac{3}{4}$  partial reps of the movement and devote all your energy to building the area you want to build—the

chest?

This is what target range of motion is all about. You target the muscle you want to work and devote all your energy to performing an exercise, or portion of an exercise, which will work that muscle. This is especially beneficial when your workout calls for high-repetition training for a major muscle group. It also allows you to load on the weight to maximize the stress on the targeted muscle.

Though not applicable to some exercises, targeting range of motion can be a real plus in others. With the military-press you can target the deltoids, and maximize training benefits by doing  $\frac{3}{4}$  partial repetitions. Likewise, if you want to train the triceps, why do the first  $\frac{3}{4}$  movement? By performing the last  $\frac{1}{4}$  of the movement to lockout, you will be insuring that all your effort is going towards training the target muscle, since that last  $\frac{1}{4}$  movement puts stress primarily on the triceps.

In essence, you are targeting your range of motion to the best effect. You understand that a muscle does not have to go through a traditional full range of motion to be trained and that, in fact, full range of motion is often of limited effectiveness.

IT IS ESSENTIAL that you do not begin target range of motion experimentation until after you have learned how to perform the exercises correctly. You need to learn and experience exercises in the classical manner before going on to this kind of advanced training. Experience will teach you when and how to best perform exercises in a target range of motion.

As discussed in our chapter on Level Four training, it is also essential that you learn how to isolate muscle effectively before trying to target it. This will take months, if not years, of gym discipline.

## **A CAUTION**

While targeting range of motion may be an important principle to learn, it is also important not to forget that taking exercises through a full range of motion has its benefits also.

Unless excessively advanced, and in Level Four type training, it would be unwise to do nothing but partial reps in a workout. Taking a movement through the full exercise range of movement can provide tremendous motivation for the bodybuilder. Those complete reps will help give you the sense of achievement and success you need to motivate yourself and train on the edge, especially during strength and power cycles of training.

Not using full exercise range of motion also takes away the benefits to be gained from using compound exercises. You will get the most muscle worked in the shortest time and experience a higher level of neuro-muscular stimulation with full compound exercises.

Still, if you are going to train on the edge, the target range of motion concept will be an essential one to learn. If you are an advanced bodybuilder, you have probably already been introduced to it and found it useful. If not, we urge you to begin experimenting with it in an effort to leave no stone unturned in your pursuit of Serious Growth and bodybuilding excellence.

# RECOVERY

## Recovery Is Essential To Serious Growth

Training is the key to muscle growth but it puts heavy demands on the body. Your ability to recover will be a big factor in maintaining and increasing growth. Your body needs an opportunity to respond to the training stress it has received and time to transport vital nutrients to muscles for energy and development.

Eastern Bloc researchers understood early on how important recovery is to development and spent plenty of time and energy finding ways to accelerate recovery. Through diet, nutritional supplements and advanced training strategy they developed methods that greatly enhanced their athletes' ability to recover from their workouts.

This advanced recovery ability allowed their athletes to train at a higher volume and higher frequency and helped them become the best weightlifters in the world. Without their advanced recovery techniques, they would have soon found themselves overtraining and jeopardizing the gains they had made. They would have been just another group of anonymous competitors instead of the champions they became.

The human body is a resilient organism capable of much more than we often give it credit for. Today's athlete has to be ready to provide his body with every healthy advantage possible. Even today, recovery is often overlooked in the equation. But, for many, it can be the answer to months or even years of frustration.

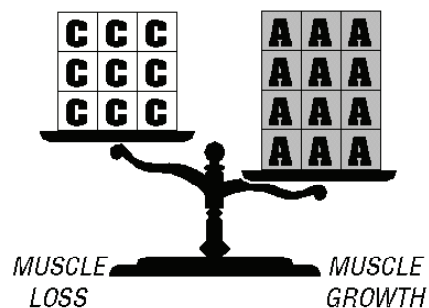
It is essential (for your own optimum development) that you become familiar with techniques to enhance recovery from your workouts. We highly recommend you make use of the suggestions and techniques presented in this chapter. Make them a regular part of your training.

## ADJUSTING ANABOLIC AND CATABOLIC STATES

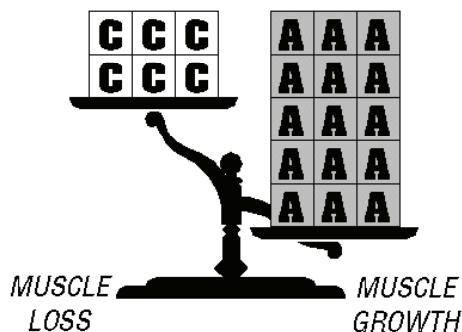
Back in Chapter 1 we discussed homeostasis and the balance between anabolic (muscle building) and catabolic (muscle loss) activity. As you recall, an average weight lifter gains muscle mass due to the increased anabolic activity caused by his training (see figure at right).

By focusing more on recovery, and reducing the length of the training sessions, while increasing their frequency, a weight lifter can decrease his catabolic activity while increasing anabolic activity. This will cause him to gain even more muscle tissue (see figure on next page).

### CONVENTIONAL TRAINING



Proper nutrition, getting plenty of rest, supplementation, and mastering the other recovery techniques covered in this chapter will provide an even larger reduction of catabolic activity in the body and make for even greater muscle growth. Again, we urge you to carefully read the following suggestions and begin to recognize how important recovery is to serious growth.



## NUTRITION

An important aspect of recovery is good, solid nutrition. This involves not only eating the right foods, but eating *enough* of the right foods. This is the #2 problem area for bodybuilders who are falling short of their goals (#1 is improper training). Often, the solution to their problem is simple: Eat More Calories.

A normal diet is great for a normal person going through a day of normal activities, but if you are in weight training, you must increase your calorie intake to get the extra nutrients necessary for gaining muscle tissue, and for the extra energy you will need for your workouts.

Nutrition is so important to the bodybuilder that we have reserved the whole next chapter in this manual for discussing diet options, including a new high-fat diet that many bodybuilders have experienced amazing results with.

## REST

There has been a great deal of research done in the area of sleep and its effect on training. It is clear from this research that not getting enough sleep will hinder your chances at maximum growth.

First, and most obvious, without enough rest you will lack energy for your workouts. Secondly, and this has a significant effect beyond training, a large amount of growth actually occurs during sleep. If you do not allow for proper sleep, you will be cheating yourself of growth you would otherwise be getting.

We prescribe approximately 9-10 hours of sleep a day. This can be a straight 10 hours at night or 8 hours at night with a 1-2 hour nap in the afternoon. So important is sleep to good health and fitness that, even if you were not on a weight training program, we would prescribe a healthy dose of it.

## RELAXATION

The ability to relax after a workout, and to stay relaxed, is vital if you want to maximize recovery capabilities. This is because relaxation kicks in the all-important parasympathetic part of the autonomic nervous system.



By way of introduction, the *autonomic nervous system* is made up of nerves that control and maintain body functions without our awareness. In a way, it could be called the “automatic nervous system” because it regulates activities like breathing, digestion, heart rate, blood flow, and glandular secretion that require no conscious effort on the part of the brain. This part of the human nervous system is made up of both the *parasympathetic* and *sympathetic* systems.

These two systems play opposite roles in the body. The sympathetic system responds to the body’s needs during periods of increased activity and emergency. The parasympathetic system responds to periods of lessened activity and relaxation.

For example, the sympathetic system is responsible for elevating your heart rate, while the parasympathetic system lowers it. The sympathetic system also sends extra blood to the muscles when you exercise, while the parasympathetic system diverts blood from the muscles to the stomach and intestines during periods of rest.

These two systems constantly work together in a delicate balance. When one system becomes dominant, it will override the other system and take control.

During intense training the sympathetic system will become dominant and provide stronger muscle contractions, additional blood flow to the muscles, and an increased heart rate to handle the increased activity in the body. However, muscle recuperation and recovery after a workout are most efficiently performed under the guidance of the parasympathetic system.

Relaxing after your workout stimulates the parasympathetic system, thus allowing the body to recover from the stress you have put on it and send more blood to the digestive tract, allowing for better nutrient transport through the body.

No single method of relaxation works for everyone. It should be determined on an individual basis. This is why it is important for you to experiment until you find a method that works best for you. Some possible relaxation methods might include:

- Listening to soothing music
- Listening to a “relaxation tape” (there are several on the market)
- Learning self-hypnosis from a registered hypnotherapist (they can teach you how to relax “on-cue”)
- Sipping herbal tea
- Visualization of calming scenes or situations

Whatever you use, remember, it is important to achieve this relaxed state immediately after your training session when the majority of muscle growth takes place, and when recovery is so

important.

## POST-WORKOUT RECOVERY TECHNIQUES

In aiding recovery you might also want to try these post-workout activities immediately after completing your training session as a way of easing into a period of relaxation:

- A cool-down session. Immediately after you finish your workout provide for a 10-12 minute low-level aerobic session. We are not talking about anything heavy here. We do not want you to max-out on the stairmaster or anything like that. Simply walk home from the gym, ride a bike lightly, or do something else that will serve as a transition from the intensity of your workout back to life outside the gym.
- Cold and hot alternating showers. As developed by the East Germans and reported by Istvan Javorek, assistant strength coach at Texas A&M University, this procedure should take place in a Cold-Hot-Cold-Hot-Cold sequence (Cold for 30 seconds, hot for one minute).

## MESSAGE

Sports massage remains one of the best kept secrets in sports medicine. This is another area where the Eastern Bloc countries got the jump on the rest of the world. Massage has been a big part of their training regimen for years.

Massage can speed recovery and enhance growth. Among other things it reduces the overall stress level on the nervous system, improves circulation, prevents loss of mobility in joints, and assists in the prevention of injuries by creating an extra degree of flexibility in the muscle tissues. It also feels good, especially after a taxing workout.

A sports massage by a qualified massage therapist can be very helpful, but it is certainly something your spouse or significant-other can learn to do also. Self-massage is also possible.

In fact, many pro-bodybuilders take advantage of self-massage right after a workout. This will increase circulation and release *fascia*, a thin layer of connecting and support tissue for the muscle that constricts during workouts and cuts off nutrient and fluid flow.

## SUPPLEMENTATION

What you put into your mouth is very important to recovery. This includes not only proper diet, but any supplements you may choose to add to your training program.

As we discussed earlier, performance supplements will increase the upper limits of the Optimum Training Zone for a bodybuilder who is training hard. People training less seriously may experience little gain from their use. As such, only those training on the edge, and greedy about getting that extra 10-20% growth performance supplements can give you, are likely to benefit from their use.

But, if you are one of those dedicated bodybuilders, who are not afraid of the hard work and pain involved in training at a maximum level, you are going to want to check out supplements. The road to proper supplement use is a treacherous one. There is a whole lot of fertilizer being used by supplement manufacturers and distributors right now to make profits grow.

That is why we have included a full chapter on supplements later in this manual. If you are interested in supplements, and want to know whether you should use them, and how to best put them to use, we urge you to read it.

## **OVERTRAINING**

Overtraining occurs when the body is stressed beyond its ability to recover. If this occurs on a continual basis, and becomes chronic, the bodybuilder will halt progress, or even find himself losing muscle.

To achieve maximum results from your workouts, training must be pushed to the limit during ramping phases. During these phases you can find yourself crossing the line from the Optimum Training Zone described earlier into overtraining. That is why we emphasize recovery as a way of widening the Optimum Training Zone, and decreasing the chance of overtraining.

The good news about overtraining is that, apart from what the overtraining alarmists claim, it is not that serious of a problem for the bodybuilder, unless it continues over an extended period of time. The great fear of overtraining that dominated bodybuilding in recent years, turned out to be largely mythical in origin. Only over extended periods of time will overtraining net the damaging side effects it is capable of producing.

But to keep on the safe side, there are some symptoms that can easily be detected early in training to warn the athlete against the possibility of overtraining.

Two of those symptoms involve increased pulse and blood pressure levels. To check on this, Istvan Javoreck offers a procedure where you monitor your pulse rate and blood pressure at the same time each day, preferably the first thing in the morning. If your pulse is elevated (increased 8-10 beats per minute) above your normal rate, or your systolic blood pressure (the higher number) is elevated 10mm Hg or more over your normal reading, you should reduce your training load 50% that day by performing only half the sets you normally do.

Other warning signs to look for include:

- Inability to relax, nervousness
- Depression
- Loss of interest in training
- Gradual increase in soreness from one training session to the next (not including the initial soreness from starting this program)
- Loss of appetite

- Swelling of the lymph nodes in the neck, groin, or armpits.
- Unexplained losses in strength
- Constipation or diarrhea.

As outlined above, if you are overtraining, you should decrease your training load by 50%. This should end any overtraining symptoms within 24-48 hours. If this reduction does not end the symptoms, discontinue your current training and replace it with *active recovery training*.

## **ACTIVE RECOVERY TRAINING**

Active recovery training consists of three workouts per week (ideally Monday, Wednesday and Friday). Each session provides a full-body workout that lasts 45 minutes and includes:

1. Three sets of behind-the-neck pull-downs or chin-ups. Each set is followed immediately by bent-over rows or low cable-pulls.
2. Three sets of front-squats or leg-presses. Each set followed immediately by dips.
3. Three sets of bench-presses (incline or flat). Each set is followed immediately by dips.
4. Two sets of standing barbell-rows (med-wide grip). Each set followed immediately by standing-presses. (you can use the same weight).

Select a weight that will allow 15-20 reps without too much struggle. The pace of the workout should be fairly rapid, but remember not to push too hard when performing this routine.

## **SORENESS VS. INJURY**

Too often, people will label the common soreness that comes with training as overtraining. They will cut back on their workouts to eliminate the soreness, and end up eliminating their progress, too. It is important to remember that just because you are sore does not mean you are overtraining.

In fact, a good training program should regularly irritate the muscle tissue. After training, muscles should feel fatigued and have a dull ache. These symptoms can be reduced or eliminated through proper recovery techniques. If you are experiencing pain that you are unsure of, consult your physician or chiropractor.

## **TRAINING ON THE EDGE**

In order to achieve the fastest muscular gains, you have to train on the edge. You have to hyperaccelerate right to the edge of overtraining, then back-off and allow hyperadaptation to work for you. The real masters of training, the instinctive trainers, have learned how to do this through experience. They know you can never hope to train on the edge (where the real growth is) if you stay miles away from it.

## **NUTRITION**

A good, solid approach to nutrition is a vital aspect of recovery. The food a bodybuilder eats should provide for energy, repair, and regeneration, along with triggering growth.

In this chapter we will provide you with two diets that have been proven to spark the kind of growth you are looking for. The first is a more traditional, conservative diet geared to the classic High-Carbohydrate/Low-Fat approach to bodybuilder nutrition. The other is a groundbreaking High-Fat/High-Protein/Low-Carbohydrate diet that many bodybuilders have been getting amazing results from recently.

We urge you to study both diets carefully and give both of them a try. There are strong benefits to be gained from each, and the ultimate choice of one diet over the other will be an individual one. Different people possess different metabolisms, and what works for one may not work for the other. Some people have sworn by the new High-Fat/Low-Carb diet, while others have found it tough to minimize carbohydrates to the level prescribed by the diet.

### **THE HIGH-CARBOHYDRATE/LOW-FAT DIET**

This diet presents the traditional well-rounded approach to nutrition. Carbohydrates and some fat provide the body with physical and mental energy. Protein is needed by the bodybuilder to build muscle tissue and strength, and to supply extra energy when needed during workouts. Vitamins and minerals are also needed by the body for proper functioning.

To get the nutritional variety you need in the proper proportions, this diet focuses on the following factors:

- Quality Nutrition
- Quantity
- Increasing Protein and Carbohydrates
- Decreasing Fat

### **QUALITY NUTRITION**

If you had a high-performance race car would you pump 87 or 89 octane gas into it? No way!

This diet takes the same approach to nutrition. It stresses high-quality food by focusing your intake on quality sources.

You will not be running down to the corner Burger Land for a double cheese and fries on this diet. The high-grade, easily digestible protein you can get from fresh cuts of red meat, chicken, turkey, egg whites and fish is stressed. The protein from these sources is easy for the body to

digest and use.

Fat is also a strong consideration here. You are urged to rid excess fat from the food you eat. Simply trimming the fat off the cuts of red meat, removing the skin from poultry, or separating the yolk from the egg will go a long way in bringing the fat you ingest to a manageable level.

Stay away from processed meats like bologna, wieners, ham, and other canned meat which all contain high amounts of fat. These are virtually impossible to control because the fat is processed throughout the bulk of the meat. These types of meat also contain high amounts of sodium and unhealthy chemical preservatives.

Likewise, the best sources for carbohydrates are rice, potatoes, beans, pasta, whole grain cereals, breads, and a large variety of vegetables. These sources contain the unrefined carbohydrates the diet requires for energy. They also contain fiber, vitamins, and enzymes which the body uses for proper digestion.

Refined carbohydrates, like bleached white-flour products, have lost much of their nutritional value and fiber through processing and bleaching. Pies, cakes, and some breads and breakfast cereals have large amounts of refined sugars and fats. Vegetables that have been cooked and canned also lose some nutritional content and are less nutritious than fresh vegetables. Avoid them.

You should also limit the amount of refined sugar products like candy and soft drinks you consume. Excessive refined sugars can be converted to fat easily, and refined sugars raise and lower blood sugar levels rapidly, creating yo-yoing energy levels which can adversely affect your training.

This diet is hardly revolutionary in nature. It stresses many of the concerns that have been focused-on in the media in recent years. Good “wholesome” food is the bottom line here.

You also do not have to be a total Spartan on this diet. You can go out for a pizza or cheesecake once in awhile and still get results. Just be reasonable about it.

## **QUANTITY**

A bodybuilder needs to eat heartily. Simply put, if you do not eat enough, then you will not grow. We often find that frustration stems from simply not eating enough calories.

Different lifestyles require different amounts of calories to sustain them. A 170 lb. office worker, for instance, needs approximately 2900 calories a day for maintenance. A more active, 170 lb. carpenter needs approximately 3700. Likewise, a normal 16-year-old boy who is still growing, will need somewhere around 3600 calories a day, while a normal 65-year-old man will need only approximately 2500. Metabolism, size, energy needs, and a variety of other factors are involved in choosing a sound approach to caloric intake.

The East Germans were the first to recognize that athletes have substantially higher nutritional requirements than the average person, and that athletes performing two-a-day training sessions have even greater requirements. Their studies revealed that, depending on the sport, athletes

need from 5000-10,000 calories per day to recover and perform at the highest level.

A bodybuilder's needs are much greater than a normal person's. Depending on your own training program, you will need to ingest many more calories during the day to get the energy needed for increased activity and growth.

If you have trouble developing an appetite and eating more, we suggest you slowly increase the amount you are eating. Build up your intake gradually. Add an egg to that toast at breakfast, or a bit of cereal, and build on it slowly in the days to come. Do not go for the gusto off the top. Take it at a manageable and tolerable pace.

## **INCREASE PROTEIN**

Protein is found in all vegetable and animal matter on earth. It makes up a big part of every cell in the human body. Protein is an especially important substance for the weight lifter because of its capacity for supplying extra energy in a workout, and for its role as a building block in the development of muscle tissue.

Eastern Bloc research showed that the high-intensity, anaerobic training a bodybuilder does requires a minimum of one gram of protein for every pound of body weight daily. If your body weight is 180 pounds, you must eat a minimum of 180 grams of quality protein each day to insure muscle growth.

The average 180 pound adult male eats only 60-80 grams of protein a day. You will be needing a lot more in your diet to pack on the muscle that you want.

## **DECREASE FAT**

Presently, fats account for around 40% of the calories in the average American's diet. According to this diet, that figure is much too high. It is suggested that for the purposes of this training program the number should be closer to 15%. It is easy to see that, for optimum results on this diet, you are going to have to limit those fried foods, cheeses, and chocolate bars in your daily nutritional outlook.

But do not go too far. Do not blacklist fat on this diet. Even given its caution on the subject, this diet still logically allows that fat is a necessity for the efficient operation of the body. It just urges you to limit the fat, and to try to get it from pure sources like pure oils, meats, butter, avocados, and olives.

## **COOKING TIPS**

Here are some tips for proper food preparation and selection for this diet:

- Coat pans with nonstick cook spray (No shortening!)
- Use safflower, soybean, sesame seed, or virgin olive oil (no lard or hydrogenated oil!). Safflower (bland flavor), soybean (bland flavor), sesame seed (strong, nutty flavor), and virgin olive oil (strong olive flavor) are interchangeable depending on

individual tastes.

- Use natural butter or non-hydrogenated margarine in small amounts.
- Use whole wheat or unbleached flour.
- In place of processed sugar use half as much fructose, or equal amounts of honey.
- Use raw brown sugar.
- Use 100% maple syrup only.
- Use nonfat mayonnaise or nonfat salad dressing.
- Use nonfat, or if unavailable, lowfat cheese in limited amounts.
- In place of sour cream, use nonfat plain yogurt, or a combination of both.
- Use extra-lean or well trimmed red meat only.
- Use only water-packed tuna (no oil packed!).
- Shredded chicken and water-packed tuna are interchangeable in any recipe.
- Any fruits or natural fruit juices are interchangeable in any recipe.
- Use natural packed fruits (no syrup!) if you must. Fresh is best!
- Use fresh vegetables only!
- Use natural peanut butter.
- Use egg-whites only. In large recipes, you may use 1 egg-yoke for every 6 egg-whites.
- Unsweetened chocolate, unsweetened cocoa, carob, and raisins are great substitutes for chocolate chips or baking chocolate.
- Unsalted nuts only!
- White rice is OK, but jasmine, or brown rice, is the most nutritious.
- Use sourdough, whole wheat, or other grain breads in limited amounts.

## **RESTAURANT TIPS**

Restaurants, especially for those who go out to eat regularly, can be a real problem with this diet. The one overriding rule to keep in mind when going into any restaurant is:

### **DO NOT LET A WAITER INTIMIDATE YOU!**

Though it may be a rarity in the fast-food business, most restaurants will let you have it your way. Order it exactly how you want it. Remember, you are paying for it. The very worst that can happen is they will say “no”. Then again, if they want your business (and money), they will



give you what you want.

If you are going to “do the right thing” you should make sure the waiter tells the kitchen staff to have all the fat trimmed off when ordering red meat. Also, remember that this should be done before cooking. Likewise, when ordering poultry, have the skin removed.

Meats should be broiled, NOT FRIED. Stay clear of gravies and sauces on all your choices including meats, vegetables, pasta, and fruits. They are almost inevitably made from heavy fats or sugars.

When ordering fruits, vegetables, or juices, make sure they are fresh and/or natural. As for salads, order nonfat dressing where possible. If absolutely impossible, opt for lowfat. The best approach here is to bring your own nonfat dressing, or to go without. You are not sure how loosely they are using the word “lowfat” these days. Are you?

Also, remember when traveling to use the same good judgement that you would at home. Being on the road can really destroy a good diet. If you can, carry a cooler with fresh and/or natural foods, snacks, and drinks.

### **More Nutritional Hints**

On the following page, you will find examples of sample diets that will net anywhere from 2,000-8,000 calories per day. We offer these merely as a guide to how you can structure a well-balanced High-Carb/Low-Fat diet. They are not written in granite, so do not feel stuck with them in any way.

Above all, we urge you to use your own discretion and imagination to work up a nutritional strategy that is best for you. You will have to allow yourself plenty of latitude to experiment and make the adjustments you need to get the kind of body you want. If, for instance, you feel like you need to eat more protein to add muscle, you can begin adding 20-30 more grams a day and see if you notice a difference.

We should also point out that the digestive system processes and assimilates nutrients more effectively if meals are broken up as much as possible. Your system finds it much easier and more efficient to use calories and nutrients when they are eaten at six moderately sized meals instead of the traditional three-square-meals a day.

Also, try to keep the nutrients at the same percentage ratio according to the following guide:

**Complex carbohydrates—55%.** Carbohydrates comprise about 45% of the average American diet. Practitioners of this diet believe this level should be closer to 55% to provide for the increased energy needs of the bodybuilder.

**Protein—30%.** The average American diet is somewhere between 12-15% protein. Obviously, you will need to beef-up appreciably in this area for the muscle you will be putting on.

**Fat—15%.** This is where you will decrease intake to make up for the increases

mentioned earlier. The average American diet includes around 40% fat, which is way too much according to this diet.

Do your best to avoid boredom in your diet by switching around meals and substituting different foods for your protein and carbohydrate needs. Remember, we are all individuals, and everybody's metabolism reacts differently to nutrition. Develop a nutritional approach that suits you and you alone.

TOTAL CALORIES	MEAL 1	MEAL 2	MEAL 3	MEAL 4	MEAL 5	MEAL 6	RATIO
2000	6 egg whites 1 egg yolk 1 cup oatmeal	4 oz. water-packed tuna 1 cup rice 2 cups cauliflower	4 oz. turkey 1 med. potato 1 cup corn	4 oz. red snapper 1 cup pasta 1 cucumber	4 oz. chicken 1 med yam 1 cup asparagus	6 egg whites 1 egg yolk 2 med potatoes	150 g. protein 275 g. carbs 33 g. fat
3000	8 egg whites 2 egg yolks 2 cups cream of wheat 1 apple	5 oz. water-packed tuna 2 cups rice 4 stalks celery	8 oz. lean ground beef 2 cups lentils	7 oz. cod fish 2 large potatoes 1 cup carrots	7 oz. chicken 2 cups corn 1 cup peas	8 egg whites 2 egg yolks 2 med. yams	200 g. protein 438 g. carbs 50 g. fat
4000	10 egg whites 3 egg yolks 3 cups oatmeal 1 banana 1 apple	8 oz. turkey 2 med. yams 3 cups carrots	1 can water-packed tuna 2 cups beans 1 cup rice	8 oz. chicken 2 cups soybeans 2 cups broccoli	8 oz. halibut 3 large potatoes 2 cups asparagus	10 egg whites 3 egg yolks 2 cups rice 1 cup peas	250 g. protein 600 g. carbs 66 g. fat
6000	12 egg whites 3 egg yolks 4 cups oatmeal 2 bananas 1 cup grapes	10 oz. chicken 4 cups rice 1 cup carrots	9 oz. round steak 4 large potatoes 3 cups cabbage 2 cups carrots	9 oz. salmon 2 cups rice 2 cups beans 1 cucumber	8 oz. trout 3 cups lentils 1 large yam	12 egg whites 3 egg yolks 2 bagels 3 cups corn 1 cup carrots	300 g. protein 975 g. carbs 100 g. fat
8000	14 egg whites 4 egg yolks 6 cups corn grits 4 slices whole-wheat bread	10 oz. turkey 4 cups beans 2 cups rice	10 oz. round steak 6 large potatoes 1 cup rice	10 oz. salmon 2 cups lentils 3 large yams 2 cups carrots	10 oz. lean ground beef 6 large potatoes 1 cup soybeans	14 egg whites 4 egg yolks 5 cups pasta 2 cups broccoli	530 g. protein 1350 g. carbs 133 g. fat

## THE HIGH-FAT/HIGH-PROTEIN/LOW-CARBOHYDRATE DIET

This diet is a whole other ball game than the one mentioned earlier. In fact, it could be seen to contradict it in some ways. It bears some resemblance to the low-carbohydrate diets that bodybuilders used in the 1960s and 1970s but discarded when the high-carb diet research came along and was adopted.

The trouble with the earlier low-carb diets, though, was that they were never applied properly, and when the high-carb diets came along, the baby, in this case the low-carb diet, got thrown out with the bath water. Recent testing has indicated that, when combined properly with a high-fat/high-protein base, the low-carb diet can actually be a superior diet for bodybuilders because it allows them to lose body fat while gaining muscle.

In fact, many bodybuilders have been achieving truly amazing growth with the high-fat/high-protein/low-carbohydrate diet recently, and it has generated a great deal of excitement in the gym. In the interest of staying on the cutting edge of research we present it here and urge you to give it a try.

## **FAT IS NOT THE ENEMY**

One of the primary areas where this diet departs from the others is in its emphasis on fat consumption. This flies in the face of what most bodybuilders have been led to believe through books, magazines, and experts. Fat is supposed to cause heart disease, high blood pressure, and obesity. It is also assumed that it makes the bodybuilder smooth and blurs definition.

“Not so” says the diet’s author, Dr. Mauro Di Pasquale. According to the doctor, and to bodybuilders who have tried this diet, you can get ripped with little, if any, effect on cholesterol levels. You can eat incredibly large amounts of pork, butter, whole eggs, and all those other things we have been led to believe were evils. Fat, long believed to be an enemy to the bodybuilder, may well be an ally when used properly.

Di Pasquale is a medical doctor, and certainly no stranger to the gym. He is a former top powerlifting champ, and is the Editor in Chief of “Drugs in Sports”, the only peer-reviewed scientific journal in the country dealing with drugs, supplements, nutrients, and other substances. He is considered an eminent authority on drug and nutrient effects and interactions as they apply to athletics. The new twists he has added to the old low-carb diet have provided the most revolutionary advance in nutritional strategy for the bodybuilder in many years.

### **How It Works**

The goal of this diet is to provide for growth by stimulating the production of growth hormone and the anabolic hormones testosterone and insulin, while minimizing the body’s level of the catabolic hormone, cortisol. In essence, it is an attempt to get the same kinds of effects you get from anabolic steroids by naturally manipulating the foods one eats.

At its simplest, the diet works by increasing the amount of fat you eat and cutting carbohydrates to a very low level. When you lower your carb intake, you decrease insulin levels in your body. This causes an increase in the hormones that key growth. Muscle growth is stimulated, and stored body fat is used at a higher rate. As a result, you get more muscular and acquire added definition at the same time.

The diet calls for an extreme cut in carbs to 30 grams per day. When this happens, the body responds by going into a temporary state of *ketosis*. In the absence of carbohydrates, it begins to break down its fat stores for energy.

Meanwhile, your increased fat intake is not being stored as body fat, it is being burned as an energy source. With both existing body fat and dietary fat being burned as energy sources, definition and muscularity are increased due to the added production of growth hormones.

In Phase One of the diet, Di Pasquale also calls for a 1½ day period at the end of the week where you temporarily switch back to a high-carbohydrate diet on Saturday and Sunday. This immediately kicks-in increased insulin levels, thus providing the body with another anabolic effect. Growth hormone is thus stimulated during the first five days of the high-fat/low-carb regimen, while insulin levels increase during the high-carb days. You get bigger while both growth hormone and insulin produce lipolysis (fat breakdown), so you lose body fat and gain definition.

After resuming a high-carbohydrate diet, it takes 36-40 hours to start smoothing out. At this time the body is more interested in increasing the muscle building blocks (amino acids) and energy-storing glycogen in the muscle cells than laying down fat.

Indeed, the high-fat/high-protein/low-carbohydrate diet can actually be seen as an excellent pre-contest diet. Using the diet for a 12-14 week period, the bodybuilder should be able to increase his lean mass by at least 10 percent if he sticks with the diet and trains hard. That is going from 200 to 220 pounds in three months, with the accompanying increase in muscle and definition.

Sound interesting?

We thought it would.

## **THE HIGH-FAT DIET**

The High-Fat diet allows for a high-fat/low-carb period during the first five days of the week followed by a high-carb diet for two days.

Expect to feel weak and to lack energy during the first 3-4 days of the first week of the high-fat diet. This is a readjustment period, during which the body's metabolism is switching from glucose to free fatty acids as a primary energy source. Do not worry about it. Once your body makes the switch, you will feel as energetic or even better than you felt before beginning the diet.

During the adjustment period, you might find it helpful to swig an ounce or two of vegetable oil (sunflower or the equivalent) every few hours or as needed. This will give you a boost in energy and add some much needed calories to your diet.

In fact, if you cannot keep your calorie intake high enough, you might want to consider using oil throughout the diet. These polyunsaturated oils also have a positive effect on cholesterol. Make sure to increase vitamin E if you take more than a few ounces a day. It will prevent the buildup of toxic peroxides that polyunsaturated fats can produce.

Here is the breakdown on food intake for Phase One, based on 5000 calories per day:

Carbohydrates: Less than 5% of your total caloric intake.

Protein: Should comprise about 30% of caloric intake.

Fat: This is a high-fat diet. Fat should make up almost 65% of caloric intake.

Alcohol: Beware. Minimal use is required because of alcohol's negative effect on androgen levels. 1 oz. per day will be OK.

Again, during low-carb days you should try to limit yourself to 30 grams of carbohydrates. Be careful with seasoning. They can contain a large amount of calories as simple and complex carbs.

During the two high-carb days, take in a minimum of 800 grams of simple and complex carbs over the 48-hour period. Keep your protein intake lower, and fat intake above 15% of total caloric intake (higher levels are OK).

## **DRUG USE**

Caffeine is not limited here, if taken in moderation. Alcohol should be kept at a minimum because of negative effects on androgen levels.

### **Other Restrictions**

Growth hormone enhancers like L-dopa, arginine, and ornithine are definitely out. They will confuse the diet's natural hormonal interaction.

Anti-catabolic substances like medium-chain triglycerides should also be avoided. So should low-quality amino acids.

A word of caution: Any time you begin a new diet, always consult your personal physician.

## **CHOLESTEROL LEVELS**

It is important to have your blood cholesterol level checked before, during, and after this diet is complete.

Cholesterol levels are largely determined by individual metabolism and body chemistry. It is suggested that you check with your doctor about the prospects for staying on the diet, especially if you have a chronic problem with cholesterol.



## PERFORMANCE SUPPLEMENTATION

For the serious bodybuilder, a good diet is not enough. It may even be virtually impossible for many people. With modern lifestyles, the time and discipline necessary for proper nutrition are in short supply.

Likewise, even if you had the greatest bodybuilding diet in the world, you would still be one step behind. The body takes time to digest the calories you consume during the day. When you are working out and ingesting large quantities of calories for maintenance and muscle growth, it takes even more time. To get the necessary nutrients for maximum growth into your body, at a time when you really need them, you will need nutritional supplementation.

It is important to point out that supplementation is not for everybody. If you are not training for maximum growth, and are willing to settle for less, you will probably see little effect from supplements. Only those people training on the edge, looking for that extra 10-20 percent growth that performance supplements can provide, will know just how much of a difference they can make by raising the upper limits of the Optimum Training Zone.

### STEROIDS: THE GOOD, THE BAD, & THE UGLY

For many years, discussion of performance-enhancing substances has started and ended with the use of anabolic steroids. Steroids, which include a variety of synthetic derivatives of the male hormone testosterone, have been widely written about and discussed in both the fitness and general population. Rarely a day goes by when there is not some story regarding their use in the press. The market for illegal steroids is estimated to run somewhere around \$500 million a year in this country alone.

Many athletes have found steroids to be a wonder drug, and they are widely used not only in bodybuilding, but in football (especially for *strength positions* like interior linemen), wrestling, track and field, and other sports. Admittedly, steroids can provide results for the user. They are also very much a two-edged sword.

On the one-hand, steroids greatly aid the body in retaining the nitrogen needed to increase muscle size and strength. They also speed up the body's ability to recover and heal from training, and they widen the upper and lower limits of the Optimum Training Zone for an athlete.

Psychologically, steroids can create a competitive, aggressive, and confident mindset—very useful in competition and training. They can also give one a sense of near invulnerability, leading to a fearless approach that can maximize motivation and performance.

Unfortunately, steroids have been shown to have some serious side-effects. Over the short term, they can create bad acne, puffiness, hair loss, shrunken testicles, and gynecomastia (enlarged nipples). They can also create moodiness and an unhealthy aggression toward others that could extend to criminal violence (known widely as “roid rage”). Recent revelations by

steroid-using athletes have even pointed to the possibility of severe depression and paranoia. And, while steroids may cause an increased sex drive when first used, they can eventually lead to a loss of sexual appetite.

Meanwhile, research points to possible increased risk of heart disease and stroke, liver cancer, kidney disease, and sterility over the long term when steroids are used. Though not physically addictive, they have proved to be psychologically addictive for some. Muscles also have a tendency to pull loose from tendons, too weak to restrain the rapid strength steroids can supply, causing serious injury for steroid users.

Research has also shown that steroids can be particularly harmful to teenagers—a group in which steroid use has been rising rapidly. Growth could be stunted, and those children who may take them, thinking that they will help them grow taller, may find growth in that direction halted.

It has also been estimated that 75-85 percent of all steroids come from black-market sources, many of which originate in illegal factories in foreign countries. Steroid purity can be a particular problem because of this.

We have also pointed out earlier how steroid use leads to low-quality training among users. They get their growth from steroids, thinking that they have become experts in their training regimen. When they stop taking them, they quickly find how little they know, and their muscle-growth evaporates.

Because of these problems they have been banned in both national and international sporting competition. Drug testing has become standard operating procedure for the world's athletes. Even the Federal Drug Administration got involved by placing steroids on the official list of controlled substances in 1991, thus making them more difficult to obtain.

## **ANOTHER WAY**

As usual, it was the East Europeans who saw the banning of steroids in competition as more an opportunity than a setback, and who began research on ways to increase performance through nutritional research. The West, however, was slow to catch on to the advantages of nutritional supplements.

Throughout the 1970s the principles behind good nutrition were a virtual mystery to the fitness world. Likewise, as late as the mid 1980s, performance nutrition and researchers were still being viewed with skepticism.

They touted the advantages of certain types of sports-drinks over water, for example, and were belittled for their efforts, but they got the last laugh. Today, sports-drinks have become a normal part of the routine for many athletes.

Still, many in the West continue to cling to those *Recommended Daily Allowance* (RDA) quotas you read on the back of packaged foods, vitamins, and most anything else you can buy at your local supermarket. The trouble is, those levels were established for average college-aged



students 20 years ago. What an early '70s long-haired college student needed to get through the demonstration at the student-union building has no relation to what anyone else needs—especially someone working out in pursuit of Serious Growth in the 1990s.

American nutritional supplement companies have finally caught on to the growing desire of athletes for natural substances to aid in performance and growth in recent years. They have changed much of their focus from merely providing vitamins to a wider ranging emphasis that includes elaborate nutritional strategies and complex formulas.

Unfortunately, most of them found it convenient to ignore the real purpose behind providing supplements that would enhance recovery and give the athlete an edge in performance and growth. Many of the supplement packages that you see advertised in magazines are not worth the bottle they are packaged in.

Especially useless are the *meal-replacement supplements* popularized recently. These supplements are high-calorie protein powders, combined with vitamins and minerals, that offer full-spectrum nutrition. Practically everything on the shelf at the supplement retailers, and most of what you see in the magazines, falls into this category.

These products are an excellent way to get a high-calorie balanced meal in one simple shake. They will get you the calories you want but, unfortunately, their benefits stop right there.

Anytime you see a catch-all or all-in-one supplement that 1) comes in powder form; 2) contains full-spectrum vitamins and minerals; and 3) combines with protein of any source, you know you have a meal-replacement supplement. It is important to remember that these supplements have no place in performance nutrition. They are not the substances you should be taking before or immediately after your workout, regardless of what anyone says.

You need the right kind of nutrients for proper performance nutrition. If you are using a performance nutrition product, do not take a meal replacement formula within an hour before, or two hours after your workout. Otherwise, as we will see later, you will be jeopardizing the benefits to be gained from your performance nutrition supplement.

If you are not using a performance nutrition product, you can drink one of these shakes any time after your workout. It will not hurt you. On the other hand, outside of increasing your calorie intake, it will not help you much either.

## **RECOVERY**

As we discussed earlier, your body's ability to recover from your workouts is crucial to optimum growth. The lure of steroids comes from the fact that, though dangerous, they greatly accelerate the body's ability to recover.

The faster you can recover, the faster you can begin adapting and becoming bigger and stronger. If you are in a constant state of recovery trying to come back from your last workout, you will find yourself overtraining and missing out on the progress you could be making.

This is where good supplementation comes in. It focuses on speeding up the recovery pro-

cess so you will spend your time growing, especially in those critical moments following the workout.

If you are reading this manual, we have to assume that there is a good chance you are one of those people who wants to perform at the highest possible level and to get the maximum out of your training sessions. If you are serious about squeezing everything you possibly can out of the workouts, and you want that 10-20 percent extra growth supplements can give you, then we think you should give some serious thought to investing in some excellent quality supplements. They will give you the extra edge you need when you are training on the edge in pursuit of getting Big Beyond Belief.

You are the only one who can assess your needs. All of us are individuals with our own metabolism and levels of activity and personal stress (all of which burns energy and calories). We all have our own goals. Without performance supplements, you will get results if you use our Training Model effectively. Proper training and diet will take you a long way.

But to get to the peak, maximize the benefits of your training, and make sure it is as effective as it can be, you owe it to yourself to consider giving performance supplements a try.

### **Buy the Best**

Check out any fitness magazine and you are going to see dozens of advertisements for supplements. They are almost always fun to read, and very well written. They will throw everything but the kitchen sink at you in an attempt to get you to buy their product.

Unfortunately, little of it has anything to do with what makes a good supplement. The industry wants you to remain ignorant, and they are not going to give you a chance to see through their game by providing you with any real education on the subject of supplements. If you knew the score about supplements, they know you would pass up their product and buy something else.

What many companies do is get their braintrust together, make lists of the latest fads that are getting lots of print in the magazines, and then throw these substances together. Maybe the witch's brew works. It probably does not. But at least it all sounds good.

Keep in mind, too, that most supplements on the market are formulated with inferior, cheaper, and less effective (if not downright useless) ingredients. Often the ingredients are thrown into the formula with no regard to how they will react with other ingredients. They often wind up cancelling each other out.

In other cases, you will find manufacturers putting just a pinch of a highly touted ingredient in the formula, just to legally say that it is in there. Of course, they ignore the fact that ten-times the amount they put in is necessary for it to be effective.

Most supplements also flood your system with cheap, low-quality sugars that can cause unhealthy jumps or crashes in your blood-sugar level during your workout. Refined sugar is a good way to engineer energy-highs, but the only problem is you will find yourself crashing in fatigue 20 minutes into your workout.

Even worse, these cheap sugar crashes are a direct result of your pancreas secreting Insulin in an emergency effort to flush the sugar out of your bloodstream. Insulin pushes all-important amino acids into your muscle cells during recovery, and it is crucial to muscle growth. When you have depleted all your insulin during a sugar crash, you will not have enough of it around after your workout to assimilate the amino acids your muscles need. You will be saying “adios” to those gains you could have had.

It is also important here to point out how expensive good quality ingredients cost. If you are looking for a *cheap, effective* supplement, you might as well give up right now. In fact, one of the factors in whether you will be using supplements or not is economic. If you want to do it right, you are going to have to pay for the good stuff.

Just remember, when it comes to supplements you get what you pay for. If you want results, you have to buy the best.

## **THE WINDOW OF OPPORTUNITY**

Finding the solution to the problem of how to get the right nutrients and the increased calories you need for Serious Growth may appear a difficult task. In fact, consuming a high amount of calories and having them pass through the digestive system with the efficiency to allow proper recovery may even seem impossible.

But it is not. Bottom line, it is certainly not as complex as the supplement manufacturers would have you believe.

To begin to understand this, we have to discuss the *Window of Opportunity* that opens for the bodybuilder during, and after, his workout. A big mistake bodybuilders make is believing that growth occurs during a workout. It does not.

During a workout, you are providing stress on your muscles, so when they recover from the workout they will get the message: Get bigger or stronger (adapt), and you will be able to handle the stress of the next workout.

Because of this, most real development begins to occur immediately after your workout. In fact, the Bulgarians found that 60% of your muscle repair and recovery occurs during this period. It is when most of the adaptive changes occur in your body in response to the stress you have provided it. Remember, the muscles react to stress by adapting, getting larger and stronger. To maximize these changes you have to make the necessary nutrients available to your body.

But do not forget about the workout itself. You will also need to have the proper nutrients available when you begin to stress and stimulate your muscles during a training session. If you are going to get the maximum training effect you will have to be ready to operate at peak performance levels. The right performance nutrition will help you do this.

This critical growth period, so dependent on nutrition management, is called the “Window of Opportunity.” This window opens approximately 5-10 minutes before your training session begins, and closes about an hour after you are finished, depending on your physical condition.

For maximum growth, you have to put the proper fuel in your body, both before and immediately after your workout. Otherwise, your body will spend precious time replacing the resources it lost while training, instead of building the muscle you want. You will lose the growth that can be gained during the time the window of opportunity is open.

## **AMINO ACIDS**

The primary substance involved in muscle growth in the body is protein, or, more accurately, amino acids. Amino acids are the building blocks the body needs to form protein and build muscle. Many supplement manufacturers look at that fact and decide, “abracadabra”, all the client needs for his workout is some protein-fortified *Muscle Dust*. Take a few swigs before the iron gets lifted and you have everything you need. Right?

Wrong.

Unfortunately, there is a limiting factor called *gastric emptying time* (GET) that gets in the way. GET is a measure of the time it takes a nutrient to get digested in the stomach, transported into the intestines, and absorbed by the bloodstream where it can be used.

Protein, or aminos, have an extremely slow GET. And not only are they slow to digest and absorb, they slow down the digestion, absorption, and utilization of every other nutrient you need for training as well. Knowing this, it is easy to see why a lot of supplements out there do not seem to work to well.

Popular in the industry are substances proudly called “metabolic optimizers”. Many hail them as a secret weapon in the struggle to make the body process nutrients efficiently and productively. The trouble is, they do the exact opposite. By throwing all the advertised nutrients in together with protein, they become metabolic-sludge, gumming up the system and insuring that the body will work at a level far less than peak efficiency.

The products may contain highly effective nutrients, but they end up not getting used when your body desperately needs them. They are literally stuck in your stomach. Often, you will even find the digestion of these nutrients causing gas, making your workout uncomfortably nauseous.

## **AMINO ACID QUALITY**

As detailed earlier, amino acids are the building blocks on which muscle growth is based. During that critical time within the window of opportunity, you have to get amino acids into your system if you are going to experience optimum growth. And, it stands to reason, if you are going to get the best results, you are also going to have to take the best quality aminos.

Unfortunately, the poorest quality amino acids look just like the most expensive and effective ones when they are simply listed on the product label as “amino acids”. You are left in the position of having to trust the manufacturers. And since they know that most people do not know much about amino acid quality, the temptation is strong to provide the cheapest amino acids.

One important factor you can look for in amino acids to determine quality involves *hydrolysis*. Hydrolysis is a process where protein is chemically broken down into amino acids, thus making the protein more bio-available, or easy to absorb for the body. Whole proteins are, basically, long chains of aminos, and they require a major effort from the body to break them down and use them.

Pure, *free-form* amino acids are not the answer here because the body wants to do something in the processing of protein. When all these free-form amino acids show up in the stomach, it gets confused and does not absorb them efficiently.

The solution resides in hydrolyzing down to an ideal 70-80% range. Unfortunately, you will not find many companies talking about hydrolysis because they only hydrolyze their aminos down to a 4-8% level.

One problem is that hydrolyzing past 15% is very expensive. Another is that the further you hydrolyze protein, the worse it tastes. Free-form aminos taste terrible. When a company only hydrolyzes down to the 4-8% level they can cover up the bad taste with a flavoring like vanilla or chocolate in a sweet powdered formula.

Because of this, you should avoid any amino acids in powder form, especially if they taste great. High-quality aminos come in tablet form.

## **THE OTS FORMULA**

After the steroid ban and the implementation of drug tests, the East Europeans took the opportunity to begin looking for ways to improve performance without drugs. What they found was the two-hour Window of Opportunity described earlier.

Most importantly, they also discovered that if you keep the nitrogen levels in the body up during that period, which is basically what steroids do, you can reap some outrageous growth. Normally the body goes into negative nitrogen balance after a workout and begins to catabolize (tear down) muscle tissue. This did not happen with steroids.

What the Eastern Europeans did was inject pure amino acids directly into the bloodstream immediately after a workout. They found that they could create a positive nitrogen-balance in the body and closely approach a steroid-like effect.

Unfortunately, this procedure was dangerous. So OTS invented a two-step process to create the same kind of conditions for the bodybuilder in a safe, reliable context. Our formula balances pH, buffers lactic acid, and sets up insulin levels and muscle cell walls using state-of-the-art nutrients, giving you the steroid effect without the syringe.

In fact, the OTS formula goes the syringe one better by dealing with muscle pH and other factors the syringe does not. It serves as a nitrogen-based *greased chute* that blasts the aminos right into the muscle cell walls.

The OTS formula is the only one on the market that is designed to keep nitrogen levels up and to maximize growth during the two-hour window. Most of the other formulas are out in

left-field. They have no real, workable strategy, and they certainly have not put essential East European research on this matter to work.

## **CHOOSING THE RIGHT STUFF**

There are truckloads of nutritional supplement products out there. Unfortunately, few of them work all that well, and even fewer people really understand why this is true.

You will find each company asserting that it has “the best product money can buy.” But beneath all the hype and hundred-dollar words, there is very little real discussion of ingredients, how they affect each other, and how different products compare to one another. It is no small wonder the performance nutrition industry has a credibility problem. It is ripe for a *Consumer Report* feature article.

That is why, above all, when dealing with nutritional supplements, we urge you to BE CAREFUL!!! As outlined above, there are a lot of companies out there that simply do not have a clue to what makes a good supplement.

If you are using supplements now, or are tempted to give them a try, do not make your purchases blindly. Use the information we have given you above. Ask questions. Get informed.

Along that line, if you would like more information on OTS supplements, or if you would like to place an order, you can call us toll-free at 1 800-582-2083. At OTS, we are in the privileged position of being able to focus on the latest research in the industry, and to apply it in real training situations with the elite athletes we work with.

We are always glad to hear from you, and we will do our best to clear up any mysteries you may have regarding the often confusing nutritional supplement industry.

## MONITORING YOUR PROGRESS

### Mirror, Mirror On The Wall

Gaining objective feedback, and finding a way to measure your growth and success, is difficult for the bodybuilder. There is no scoreboard down at the end of the field to tell you if you are ahead. It is not a race where you know you have won if you crossed the finish line first. You really cannot even count the pounds on the bar.

Sure, you lift weights as part of your training program, but weight on a bar is not your ultimate goal. You are trying to stimulate muscle growth, and the measure of your success will come in how well you do this.

Most bodybuilders use the mirror as a way to track their progress. The problem with the mirror is that it reflects your emotions, as well as your physical state. If you have had a bad day, or a bad week, it is sure to affect the way you see yourself in the mirror.

When you are feeling down, you will carry this over to the way you look at yourself. You feel down, so you are down. You get confused. You panic. You begin tracking your progress in terms of strength, rather than size. You make drastic changes in your training. Growth goes out the window.

When emotion begins to play a large role in evaluating your progress, you are in trouble. Emotion may be a quality good for motivating your regular appearance at the gym, but it is a killer when you are trying to be objective.

If you want to analyze your physique, the best way is through taking photos of yourself. Photos can be seen from an emotional distance, and you can be more objective looking at them than you can in the gym mirror.

### Weighing the Alternatives

A scale can be just as much a problem. You can hop on it, find yourself three pounds heavier, and stress out. You will not know whether it is three pounds of muscle, three pounds of fat, or a combination in between. If you try to come up with an answer, you will just be guessing.

Likewise, suppose a bodybuilder were to lose four pounds in a week's time. He would have to ask himself these questions:

1. Was the weight loss muscle or fat?
2. Could muscle mass have increased and the overall decrease in body weight be due to loss of fat?
3. Does diet or training need to be altered?

The scale will not give you the answers to these questions, neither will the mirror. And the tape measure, which can be an objective source when looking for long-term growth of a specific



body part, is no good when physiological changes are short-term.

## **PROVEN OPTIONS**

It should not come as a surprise that the fitness industry, ever vigilant for marketable solutions to your training problems, has come up with plenty of hardware for tracking progress over the years. Unfortunately, all have their drawbacks. Methods include:

**Underwater Weighing**—This is the contemporary standard for determining body-fat composition. Unfortunately, it is often misused. Lung volume must also be measured during the actual weighing and this will not get done properly unless the whole procedure is performed under strict laboratory conditions.

Most often, lung volume is estimated using popular lung volume estimation charts that can increase error rates and really foul up your results. When this occurs, and it occurs frequently, underwater weighing becomes far less reliable than a simple skinfold test using calipers.

Underwater weighing can also be very expensive and, because it is done properly in a lab, inconvenient. It is most often not practical for use on a regular basis.

**Ultrasound Analysis**—This method is accurate and easy to use, but most people do not have access to an ultrasound analyzer. When you do find one, it can be expensive.

**Infra-Red & Electrical Impedance**—Both infra-red and electrical impedance are relatively new techniques that are promising. Still, for economy and convenience, our recommendation is that you turn to an old reliable:

**Skinfold Thickness**—If used and performed correctly, and we are not exactly talking rocket science here, the use of skinfold-calipers is the least expensive, most convenient way of measuring subcutaneous fat and tracking your progress. It is extremely accurate.

Skinfold calipers can present a problem when measuring body-fat percentage, though. Once measurements are taken, they are put into an equation to estimate total body fat. Unfortunately, there are several equations currently being used, and they all have their pros and cons depending on what type of person is being measured (tall or short, fat or thin, male or female, etc.).

Luckily, you do not need to use these formulas. Your primary concern is the subcutaneous fat (fat beneath the skin), and that can be tracked well by the use of skinfold calipers. Subcutaneous fat is the area most sensitive to changes in body form and structure. By noticing even slight changes here, you can fine-tune your training for the best effect. This makes skin calipers the most practical way for you to monitor your progress.



## THE FAT INDEX NUMBER (FIN)

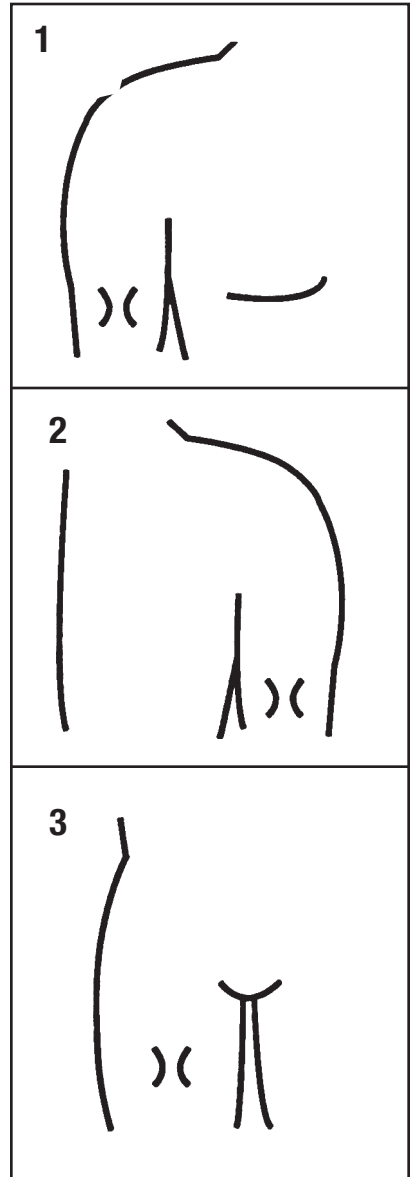
The *Fat Index Number* (FIN) is determined by measuring your skinfold thickness at three to seven crucial areas in the body. Look at the diagrams below and choose three, four, or all seven areas to measure for thickness (in millimeters). Your personal fat index number is determined by adding all the numbers together.

1. Bicep: Pinch the skin along the length of the bicep (front of upper arm) so the fold is perpendicular to the floor.
2. Tricep: Pinch the skin along tricep (back of upper arm) so it is perpendicular to the floor.
3. Frontal Thigh: In a seated position, pinch skin along the length of the thigh.
4. Abdominal: Spare tire area. Pinch skin horizontally just above the hip bone.
5. Umbilicus: Just to the side of the navel, pinch perpendicular to the floor. Longway with the body.
6. Medial Calf: Pinch perpendicular just inside the calf on the ridge.
7. Subscapular: Pinch horizontally just below the shoulder blade.

We suggest you get quality calipers to help you keep constant pressure on the skinfolds during measurement. The two types of calipers we recommend are the Slimguide and Harpenden. They can be purchased at most local drugstores. Instructions on how to take skinfold measurements will come with the calipers.

To insure getting the most accurate results:

1. Get somebody else to measure you if possible. He will have a better perspective for accurate measurement. It is also best to have the same person measuring each time.
2. Do not get stressed out over getting the measurements taken in the exact places described above. Simply choose a spot near the area, and when you repeat the measurement, try to get as close to the previous measurement spot as possible.



3. Make sure the skin is pinched in the same direction each time.
4. Make sure the same body parts are measured each time.
5. Measuring technique should, in all ways, remain unchanged. Do it the same way every time.

These suggestions should help keep measurements consistent, and your personal fat index numbers reliable.

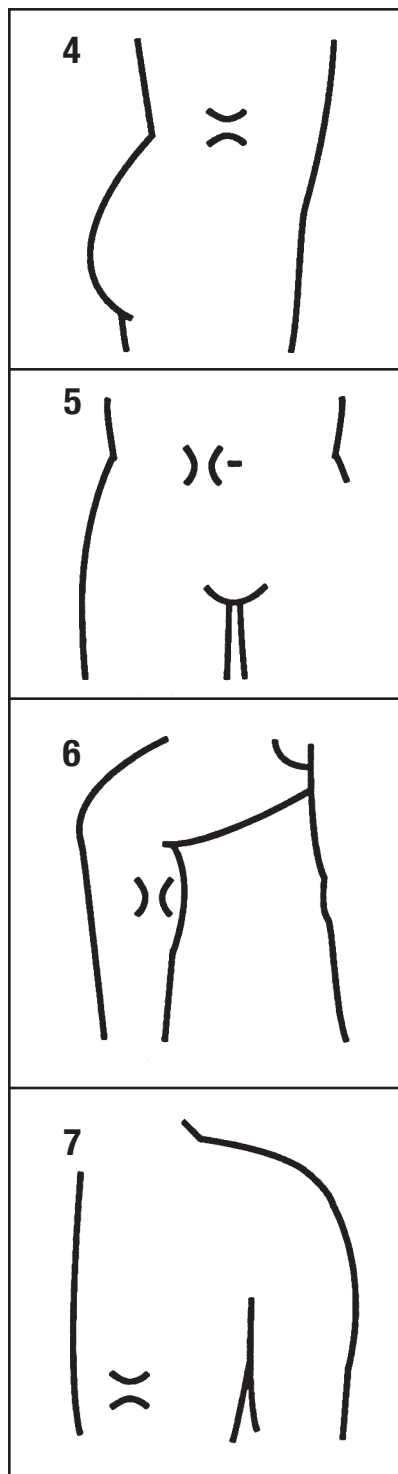
### UNDERSTANDING THE FIN

You should measure your personal FIN every two weeks, on the same day of the week, by adding together the measurements you get from each different body part. The ideal result you are looking for is to maintain body weight, while lowering your FIN.

If, for instance, your FIN is 110 mm (the sum of your measurements at four skinfolds—say biceps, triceps, below shoulder blade and umbilicus), and your body weight is 185 pounds, and you come back two weeks later still weighing 185, but with a FIN of 85 mm, you will know you are making good progress. You are adding muscle and losing fat, while your body weight remains unchanged.

On the other hand, suppose your FIN is 90 mm, and your body weight is 210. You decide to go on a diet to develop more muscle definition. You come back two weeks later at 200 pounds, with a FIN unchanged at 90 mm. Do not celebrate the weight loss! Most of it was muscle. Your total body fat is the same as it was at 210 pounds.

As far as trying to adhere to some universally accepted FIN that all people should be measured against, forget it. There is no absolute number. People are different. Some will have thicker skin. It is best to do your own research on where you look best and personally discover your own best FIN. Most experienced bodybuilders develop considerable skill in this area and have little problem with it.



## FOCUS ON GROWTH

If your goal is to achieve maximum muscle growth, then you do not want to overburden your system by trying to lose fat at the same time. If you plan on burning off fat by adding an aerobics program to your training, remember that this will require adaptive energy, just like building muscle. If you pursue both objectives at the same time, you will find that you will cut the effectiveness of each by 50%.

So, if your goal is muscle growth, do not sabotage your progress by focusing on fat loss. We would rather that you focus all your energies on gaining the massive, lean muscle you want.

### Adjusting Your Diet

Keep in mind, though, that you can reduce fat during training to some degree by merely making some adjustments to your diet. If you are training to get large, but are concerned about gaining extra fat in the process, this is an area you will want to study.

If you have not trained with weights before, you will quickly notice how many more calories you are burning than usual. As we discussed before, a bodybuilder requires a big increase in calories to insure increased growth and keep up with the added energy requirements of his training. As he progresses on a program, losing or gaining weight becomes easy through simple adjustments of his diet.

We strongly recommend that athletes make an attempt to find the *equilibrium point* in their diet, in relationship to their training. Most advanced bodybuilders develop a finely-tuned *sixth-sense* about this, and they are aware of the connection between how much they are eating and how much weight they are losing or gaining. It may take a little time to acquire this sixth-sense, but it is really not complicated.

To begin to determine the equilibrium point in your diet:

1. Weigh yourself at the same time each day and keep track. Do not let daily swings throw you, though. You can easily vary 3-5 pounds per day from intestinal bulk or water weight.
2. Choose a substantial daily calorie intake and structure your diet so this amount will be taken in each day.
3. Choose a day on which to measure your FIN and measure it every two weeks (for instance, every other Monday).
4. After two weeks of consuming your targeted daily calories, measure your FIN to see if there are any increases or decreases in the number.
5. If your FIN decreases or stays the same, increase your total intake by 400 calories per day the next week.
6. If your FIN increases, decrease your total intake by 200 calories per day the next week and see if it stabilizes.

7. Continue this process until you obtain a total calorie intake that allows you to gain weight without significantly increasing your FIN.

Do not, however, concern yourself too much with small increases in your FIN. We are trying to build muscle here. To accelerate this process you are going to be supplying the body with a lot of calories. Because of this, you run the risk of adding a bit of body fat, but it is not too much of a problem. Training at this level of volume and intensity will make it easier to lose fat.

If you begin to see alarming increases in your Fat Index Number, simply decrease your calories by 200 a day for the next two weeks, or consider adding aerobic training in your workouts. You should be able to rid yourself of the excess fat quite easily.

## CONCLUSION

This manual represents the fruits of decades of Eastern European, American, and OTS research and experience. There is nothing else like it on the planet. You will not find another training program as carefully researched, tested, and planned.

It also puts you on the cutting edge of bodybuilding technique and mastery. In this manual alone are revolutionary new findings and applications including:

- The first Training Model aimed at Serious Growth
- A guide to true instinctive training
- The first rating system for proper exercise selection
- Innovative set-extendors to help you train on the edge
- A response to the *overtraining gurus* who have plagued the bodybuilding community in recent years
- The Di Pasquale High-Fat/High-Protein/Low-Carb Diet
- The OTS formula for performance supplements that work

In short, The *Big Beyond Belief* program is a step-up to *what's next* for the bodybuilder. Not only will you experience incredible growth, but you will learn how to train for the long haul. No more plateauing or going stale. No more muscle confusion and mental delusion. No more overtraining paranoia. *Big Beyond Belief* gets you into the Optimum Training Zone where the real growth is, and it keeps you there.

As always, we urge you to KEEP IN TOUCH. We want to hear about your personal training experiences and any problems or comments you might have. Our program is constantly evolving. We are dedicated to advancing bodybuilding research into the 21st Century and know that our clients are a key component in our quest for the perfect Training Model. It is also great to have our clients share the success stories that our program makes possible, so feel free to give us a call (559) 732-5378 or drop us a line at 606 E. Acequia Ave., Visalia, CA 93292, whenever you feel like it.

Thanks for putting your trust in us and giving us the opportunity to help you get the body you have always dreamed of. We wish you all the best in the pursuit of excellence in all facets of your life.

See you in the gym.



# **Addendum**

## **How to Gain 4 Pounds of *MUSCLE* in 10 Days**





Dear Friend:

I'm sure by now you're amazed at the results that the *Big Beyond Belief* training strategy produces. If you've just ordered the manual, prepare yourself because you're in for some awesome results.

I recently returned to Bulgaria and I've come back with still more incredible information. I received this program for gaining 4 pounds of muscle in 10 days in a less than ordinary manner.

Let me explain.

After spending the entire day at a competition in Varna, the lifters and trainers invited me over to one of the local pubs for a few slugs of vodka (vodka is like water to the Bulgarians). I'm thinking this is a perfect opportunity to get some info. So I started cruising through the crowd with my interpreter by my side getting to know some of the new Bulgarian coaches and saying "Hello" again to the familiar faces from my last trip.

My interpreter introduced me to the assistant head trainer from the Weightlifting Federation. We hit it off very well, speaking of the contest from earlier in the day and various things. He was being a little conservative with the conversation at first. However, as time carried on and the vodka continued to pour, the conversation was becoming quite comfortable.

As you know, my only interest in him was to find out what training secrets he had. If I had to sit and listen to the interpreted stories regarding his wife and six children, I was willing. I just needed the right opportunity to pick his brain.

After starting on our third drink of vodka, he began to open up about this fantastic program that they were using on their athletes. This was what I was waiting for. He explained that at one time the nutritional quality of protein that they were getting from their meat was poor.

I'm thinking to myself, "What does that have to do with this great program?" Believe me it all ties together. Just let me draw this picture for you.

In Bulgaria they don't have the luxury of going to the supermarket and choosing quality meats. Most Bulgarians raise their own animals for meat and their feed for the animals is poor in quality. This coach is explaining to me how the local people would take protein out of the animals diet for one day every two weeks. By doing this, the quality and content of protein in the meat increased.

The animal's body reacts to the protein deficiency in somewhat of a panic. It (the animal) has no idea how long it will take to get more protein. So after 24 hours, when they do give the animal some protein, it stores it up in excess in anticipation of another shortage.

The trainers got to thinking, if it works on cows and chickens, it should work on humans. With continuing research, they developed a technique called "protein cycling", where they do the same thing with the lifters.

He starts explaining a totally different technique that they use in training. He spoke of a cycle where for a few days they would actually overtrain the lifter in a controlled manner.

Now, at 2:00 A.M. in the morning I'm propping up my eyelids and peeling back my ears. Now that I had him talking I wasn't about to let the conversation stray. I knew in my mind that somehow this protein cycling would tie in with the controlled overtraining. I'm still pumping him with questions, because I knew the big picture was on its way.

He continued on to explain how they would combine this controlled overtraining with the protein cycling every so often to give their athletes a boost. Now I'm confused, "A boost", what the hell does "a boost" mean. When my interpreter blurted out, "4 lbs. new muscle, 10 days", my jaw hit the floor.

He continued explaining how occasionally a lifter's progress would slow down and that it was his responsibility to determine if it was caused by overtraining or stagnation. If it was overtraining they would put the lifter into active recovery training. But this term "stagnation" threw me off a bit so I asked him to explain.

He described how during normal Bulgarian Burst training the amount of training or irritation applied to the body was just under the maximum adaptation level for the body. "Stagnation," he explained, "is when the body becomes resistant to the constant adaptation or growth process." Imagine the body getting pissed off cause you won't let it rest. If after too long you don't get some sleep, its going to shut off automatically.

If a lifter is experiencing stagnation they put him on this special program that he was speaking of. The overtraining will shock his system and force a rise in the level of adaptation within his body. It's similar to how smelling salts irritate you enough to wake you up when you're out cold. He described this whole process of controlled overtraining as pre-setting the physical environment.

I'm getting frustrated now cause he's using all this fancy terminology, but he wasn't telling me anything I could use. He was being overly vague. Looking back at it, I think he was insuring another bottle of vodka. In any case I wanted specifics, so 'ask a specific question get a specific answer'. I bluntly asked him to explain the whole program to me step-by-step. I figured it was more important to know how to work the system rather than hearing how the system works.

The trainer explained that for five days they would dramatically increase the volume of training to 18-20 sets per session at a high amount of repetitions per set. At the same time they would deplete the body of carbohydrates.

I couldn't understand why they depleted the carbohydrates. He explained that the starvation worked the same for carbohydrates as it did for protein.

So, on the sixth day they would eliminate protein from the diet and let the lifter eat strictly fruits. This brings carbohydrates back into the system in larger than normal amounts. Now the lifter has an overload of carbohydrates to give him extra energy for what is yet to come.

By taking the lifter off of protein for 24 hours it begins the protein cycling process I described

earlier.

After this protein starvation day, the lifter is required then to eat a minimum of 7,000 calories per day consisting of high protein, high carbohydrate, and medium fat. At this time when all this protein is added to the lifter's diet, he then begins a lower-volume, higher-intensity training program for 10 days. I call this Critical Mass™ training.

I took the liberty of naming the different stages in English, mainly because most of us can't read or speak the Bulgarian language. I've termed the first six days of overtraining and carbohydrate depletion as the Hyper-phase™. The second part, consisting of 10 days of intensity training, is called the Critical Mass™ cycle.

On pages 170 and 171 you'll find separate Dynamic Structure charts for both the Hyper-phase™ and the Critical Mass™ cycle. Pages 154 thru 169 include daily guides outlining the training and nutritional requirements of each specific day.

The complete program developed by the Bulgarians for gaining 4 lbs. of muscle in 10 days is outlined in detail in this section.

However, I caution you not to attempt to redesign the program to fit your needs. The Bulgarians spent a lot of time, energy, and research in developing this program. It is obvious that there are many critical variables involved in this program so stay within the recommended parameters of the system as outlined.

Also, this program was designed for a shock to the system of an experienced weight lifter. Before using this program, you should perform normal Big Beyond Belief™ Training for three months. If you are an experienced Serious Growth® lifter you should only use this program every three months.

It's an excellent means to thrust you past a temporary plateau and help you rapidly achieve 4 lbs. of Critical Mass™ in a very short period of time.

Sincerely,

  
Leo Costa, Jr.

# **HYPER-PHASE**

## **DAILY GUIDE**

### **DAY 1**

#### ***Burst 1***

**AM**

**1 1/2 hours**

**15-18 repetitions per set**

**30-45 second rest between sets**

**Thighs**

**5 sets squats**

**5 sets leg press**

**5 sets lunges**

**5 sets leg extensions**

**Calves**

**5 sets standing heel raises**

**6 sets seated heel raises**

**6 sets calf presses**

**(on leg press)**

#### ***Burst 2***

**PM**

**1 1/2 hours**

**15-18 repetitions per set**

**30-45 second rest between sets**

**Chest**

**5 sets bench press**

**5 sets incline dumbbell**

**5 sets flys**

**5 sets decline bench**

**Diet: High Protein**

**Low carbohydrate (40 grams)**

**(Steak to salad)**

**ABS**

**6 sets crunches**

**6 sets hanging leg raises**

**6 sets Roman chair sit-ups**

**You must sustain your body weight during Hyper-phase!**

**Triceps**

**5 sets close grip bench**

**5 sets tricep ext.**

**5 sets seated French curls**

**5 sets kickbacks**

# **HYPER PHASE**

## **DAILY GUIDE**

### **DAY 2**

#### ***Burst 1***

**AM**

**1 1/2 hours**

**15-18 repetitions per set**

**30-45 second rest between sets**

**Back**

**5 sets bent-over barbell rows**

**5 sets T-bar rows**

**5 sets chin-ups**

**5 sets dumbbell rows**

**Shoulders**

**5 sets military press**

**5 sets med-wide grip upright rows**

**5 sets dumbbell shoulder press**

#### ***Burst 2***

**PM**

**1 1/2 hours**

**15-18 repetitions per set**

**30-45 second rest between sets**

**Biceps**

**5 sets barbell curls**

**5 sets dumbbell curls**

**5 sets close reverse chins**

**5 sets hammer curls**

**Diet: High Protein**

**Low carbohydrates**

**(40) grams**

**(Steak and salad)**

**Trapezius**

**6 sets barbell shrugs**

**6 sets dumbbell shrugs**

**6 sets upright row (close grip)**

**You must sustain your body weight during the Hyper Phase.**

# **HYPER PHASE**

## **DAILY GUIDE**

### **DAY 3**

#### ***Burst 1***

**AM**

**1½ hours**

**12-15 repetitions per set**

**30-45 second rest between sets**

**Thighs**

**5 sets squats**

**5 sets leg press**

**5 sets lunges**

**5 sets leg extensions**

**Calves**

**5 sets standing heel raises**

**6 sets seated heel raises**

**6 sets calf presses**

**(on leg press)**

#### ***Burst 2***

**PM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Chest**

**5 sets bench press**

**5 sets incline dumbbell**

**5 sets flys**

**5 sets decline bench**

**Diet: High Protein**

**Low carbohydrate (40 grams)**

**(Steak to salad)**

**ABS**

**6 sets crunches**

**6 sets hanging leg raises**

**6 sets Roman chair sit-ups**

**You must sustain your body weight during Hyper-phase!**

**Triceps**

**5 sets close grip bench**

**5 sets tricep ext.**

**5 sets seated French curls**

**5 sets kickbacks**

# **HYPER PHASE**

## **DAILY GUIDE**

### **DAY 4**

#### ***Burst 1***

**AM**

**1½ hours**

**12-15 repetitions per set**

**30-45 second rest between sets**

**Back**

**5 sets bent-over barbell rows**

**5 sets T-bar rows**

**5 sets chin-ups**

**5 sets dumbbell rows**

**Shoulders**

**5 sets military press**

**5 sets med-wide grip upright rows**

**5 sets dumbbell shoulder press**

#### ***Burst 2***

**PM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Biceps**

**5 sets barbell curls**

**5 sets dumbbell curls**

**5 sets close reverse chins**

**5 sets hammer curls**

**Diet: High Protein**

**Low carbohydrates**

**(40) grams**

**(Steak and salad)**

**Trapezius**

**6 sets barbell shrugs**

**6 sets dumbbell shrugs**

**6 sets upright row (close grip)**

**You must sustain your body weight during the Hyper Phase.**

# **HYPER PHASE**

## **DAILY GUIDE**

### **DAY 5**

#### ***Burst 1***

**AM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Thighs**

**5 sets squats**

**5 sets leg press**

**5 sets lunges**

**5 sets leg extensions**

**Calves**

**5 sets standing heel raises**

**6 sets seated heel raises**

**6 sets calf presses (on leg press)**

#### ***Burst 2***

**PM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Chest**

**5 sets bench press**

**5 sets incline dumbbell**

**5 sets flys**

**5 sets decline bench**

**Diet: High Protein**

**Low carbohydrate (40 grams)**

**(Steak to salad)**

**ABS**

**6 sets crunches**

**6 sets hanging leg raises**

**6 sets Roman chair sit-ups**

**You must sustain your body weight during Hyper-phase!**

**Triceps**

**5 sets close grip bench**

**5 sets tricep ext.**

**5 sets seated French curls**

**5 sets kickbacks**



**HYPER PHASE**  
**PROTEIN STARVATION DAY!**  
**DAILY GUIDE**  
**DAY 6**

*Burst 1*

**AM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Back**

**5 sets bent-over barbell rows**

**5 sets T-bar rows**

**5 sets chin-ups**

**5 sets dumbbell rows**

**Shoulders**

**5 sets military press**

**5 sets med-wide grip upright rows**

**5 sets dumbbell shoulder press**

*Burst 2*

**PM**

**1½ hours**

**10-12 repetitions per set**

**30-45 second rest between sets**

**Biceps**

**5 sets barbell curls**

**5 sets dumbbell curls**

**5 sets close reverse chins**

**5 sets hammer curls**

*Diet: All fruits, no protein!*

**Trapezius**

**6 sets barbell shrugs**

**6 sets dumbbell shrugs**

**6 sets upright row (close grip)**

**You must sustain your body weight during the Hyper Phase.**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 1**

8-10 sets per burst

Choose only 2 exercises per category

**Burst 1**  
**30 minutes**  
**2 to 3 minute rest periods**

**Thighs 8-10 repetitions**  
**5 sets squats**  
**5 sets leg press**  
**5 sets hack squats**  
**5 set lunges**

**Burst 2**  
**30 minutes**  
**2 to 3 minute rest periods**

**Calves 10-15 repetitions**  
**5 sets standing heal raises**  
**5 sets seated heal raises**  
**5 sets donky**  
**5 sets calve ext**

**Burst 3**  
**30 minutes**  
**2 to 3 minute rest periods**

**Chest 6-8 repetitions**  
**5 sets bench press**  
**5 sets incline press**  
**5 sets dumbbell bench press**  
**5 sets dumbbell incline press**

**Burst 4**  
**30 minutes**  
**2 to 3 minute rest periods**

**ABS 10-15 repetitions**  
**5 sets crunches**  
**5 sets hanging leg raises**  
**5 sets Roman chair**  
**5 sets sit-ups**

**Burst 5**  
**30 minutes**  
**2 to 3 minute rest periods**

**Triceps 4-6 repetitions**  
**5 sets close grip bench**  
**5 sets weighted dips**  
**5 sets extensions**  
**5 sets French curls**

**Diet: High protein, high carbohydrates, medium fat**  
**Minimum 6,000 caloriesóTarget 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 2**

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

**Back 8-10 repetitions**

**5 sets bent over barbell rows**

**5 sets weighted chins**

**5 sets pull downs**

**5 sets love cable rows**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

**Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donky**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

**Deltoids 4-6 repetitions**

**5 sets military**

**5 sets upright rows (med-wide grip)**

**5 sets smith press**

**5 sets shrugs**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

**ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

**Biceps 6-8 repetitions**

**5 sets straight bar curls**

**5 sets curl bar curls**

**5 sets dumbbell curls**

**5 sets hammer curls**

**Diet: High protein, high carbohydrates, medium fat**

**Minimum 6,000 calories Target 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 3**

8-10 sets per burst  
Choose only 2 exercises per category

**Burst 1**  
**30 minutes**  
**2 to 3 minute rest periods**

**Thighs 4-6 repetitions**  
**5 sets squats**  
**5 sets leg press**  
**5 sets hack squats**  
**5 sets lunges**

**Burst 2**  
**30 minutes**  
**2 to 3 minute rest periods**

**Calves 10-15 repetitions**  
**5 sets standing heel raises**  
**5 sets seated heel raises**  
**5 sets donky**  
**5 sets calve ext**

**Burst 3**  
**30 minutes**  
**2 to 3 minute rest periods**

**Chest 8-10 repetitions**  
**5 sets bench press**  
**5 sets incline press**  
**5 sets dumbbell bench press**  
**5 sets dumbbell incline press**

**Burst 4**  
**30 minutes**  
**2 to 3 minute rest periods**

**ABS 10-15 repetitions**  
**5 sets crunches**  
**5 sets hanging leg raises**  
**5 sets Roman chair**  
**5 sets sit-ups**

**Burst 5**  
**30 minutes**  
**2 to 3 minute rest periods**

**Triceps 6-8 repetitions**  
**5 sets close grip bench**  
**5 sets weighted dips**  
**5 sets extensions**  
**5 sets French curls**

**Diet: High protein, high carbohydrates, medium fat**  
**Minimum 6,000 caloriesóTarget 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 4**

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

**Back 4-6 repetitions**

**5 sets bent over barbell rows**

**5 sets weighted chins**

**5 sets pull downs**

**5 sets low cable rows**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

**Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donkey**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

**Deltoids 6-8 repetitions**

**5 sets military**

**5 sets upright rows (med-wide grip)**

**5 sets smith press**

**5 sets shrugs**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

**ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

**Biceps 8-10 repetitions**

**5 sets straight bar curls**

**5 sets curl bar curls**

**5 sets dumbbell curls**

**5 sets hammer curls**

**Diet: High protein, high carbohydrates, medium fat**

**Minimum 6,000 calories Target 7,000 calories**

# CRITICAL MASS

## DAILY GUIDE

### DAY 5

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

#### **Thighs 6-8 repetitions**

**5 sets squats**

**5 sets leg press**

**5 sets hack squats**

**5 sets lunges**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

#### **Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donkey**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

#### **Chest 4-6 repetitions**

**5 sets bench press**

**5 sets incline press**

**5 sets dumbbell bench press**

**5 sets dumbbell incline press**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

#### **ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

#### **Triceps 8-10 repetitions**

**5 sets close grip bench**

**5 sets weighted dips**

**5 sets extensions**

**5 sets French curls**

**Diet: High protein, high carbohydrates, medium fat**

**Minimum 6,000 caloriesóTarget 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 6**

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

**Back 8-10 repetitions**

**5 sets bent over barbell rows**

**5 sets weighted chins**

**5 sets pull downs**

**5 sets low cable rows**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

**Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donkey**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

**Deltoids 8-10 repetitions**

**5 sets military**

**5 sets upright rows (med-wide grip)**

**5 sets smith press**

**5 sets shrugs**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

**ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

**Biceps 4-6 repetitions**

**5 sets straight bar curls**

**5 sets curl bar curls**

**5 sets dumbbell curls**

**5 sets hammer curls**

**Diet: High protein, high-carbohydrates, medium-fat**

**Minimum 6,000 calories Target 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 7**

8-10 sets per burst  
Choose only 2 exercises per category

**Burst 1**  
**30 minutes**  
**2 to 3 minute rest periods**

**Thighs 8-10 repetitions**  
**5 sets squats**  
**5 sets leg press**  
**5 sets hack squats**  
**5 sets lunges**

**Burst 2**  
**30 minutes**  
**2 to 3 minute rest periods**

**Calves, 10-15 repetitions**  
**5 sets standing heal raises**  
**5 sets seated heal raises**  
**5 sets donky**  
**5 sets calve ext**

**Burst 3**  
**30 minutes**  
**2 to 3 minute rest periods**

**Chest 6-8 repetitions**  
**5 sets bench press**  
**5 sets incline press**  
**5 sets dumbbell bench press**  
**5 sets dumbbell incline press**

**Burst 4**  
**30 minutes**  
**2 to 3 minute rest periods**

**ABS 10-15 repetitions**  
**5 sets crunches**  
**5 sets hanging leg raises**  
**5 sets Roman chair**  
**5 sets sit-ups**

**Burst 5**  
**30 minutes**  
**2 to 3 minute rest periods**

**Triceps 4-6 repetitions**  
**5 sets close grip bench**  
**5 sets weighted dips**  
**5 sets extensions**  
**5 sets French curls**

**Diet: High protein, high carbohydrates, medium fat**  
**Minimum 6,000 caloriesóTarget 7,000 calories**



# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 8**

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

**Back 6-8 repetitions**

**5 sets bent over barbell rows**

**5 sets weighted chins**

**5 sets pull downs**

**5 sets low cable rows**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

**Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donky**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

**Deltoids 4-6 repetitions**

**5 sets military**

**5 sets upright rows (med-wide grip)**

**5 sets smith press**

**5 sets shrugs**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

**ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

**Biceps 6-8 repetitions**

**5 sets straight bar curls**

**5 sets curl bar curls**

**5 sets dumbbell curls**

**5 sets hammer curls**

**Diet: High protein, high carbohydrates, medium fat**

**Minimum 6,000 calories Target 7,000 calories**

# **CRITICAL MASS**

## **DAILY GUIDE**

### **DAY 9**

8-10 sets per burst  
Choose only 2 exercises per category

**Burst 1**  
**30 minutes**  
**2 to 3 minute rest periods**

**Thighs 4-6 repetitions**  
**5 sets squats**  
**5 sets leg press**  
**5 sets hack squats**  
**5 sets lunges**

**Burst 2**  
**30 minutes**  
**2 to 3 minute rest periods**

**Calves 10-15 repetitions**  
**5 sets standing heel raises**  
**5 sets seated heel raises**  
**5 sets donky**  
**5 sets calve ext**

**Burst 3**  
**30 minutes**  
**2 to 3 minute rest periods**

**Chest 8-10 repetitions**  
**5 sets bench press**  
**5 sets incline press**  
**5 sets dumbbell bench press**  
**5 sets dumbbell incline press**

**Burst 4**  
**30 minutes**  
**2 to 3 minute rest periods**

**ABS 10-15 repetitions**  
**5 sets crunches**  
**5 sets hanging leg raises**  
**5 sets Roman chair**  
**5 sets sit-ups**

**Burst 5**  
**30 minutes**  
**2 to 3 minute rest periods**

**Triceps 6-8 repetitions**  
**5 sets close grip bench**  
**5 sets weighted dips**  
**5 sets extensions**  
**5 sets French curls**

**Diet: High protein, high carbohydrates, medium fat**  
**Minimum 6,000 caloriesóTarget 7,000 calories**

# CRITICAL MASS

## DAILY GUIDE

### DAY 10

8-10 sets per burst

Choose only 2 exercises per category

#### **Burst 1**

**30 minutes**

**2 to 3 minute rest periods**

**Back 4-6 repetitions**

**5 sets bentover barbell rows**

**5 sets weighted chins**

**5 sets pull downs**

**5 sets low cable rows**

#### **Burst 2**

**30 minutes**

**2 to 3 minute rest periods**

**Calves 10-15 repetitions**

**5 sets standing heel raises**

**5 sets seated heel raises**

**5 sets donky**

**5 sets calve ext**

#### **Burst 3**

**30 minutes**

**2 to 3 minute rest periods**

**Deltoids 6-8 repetitions**

**5 sets military**

**5 sets upright rows (med-wide grip)**

**5 sets smith press**

**5 sets shrugs**

#### **Burst 4**

**30 minutes**

**2 to 3 minute rest periods**

**ABS 10-15 repetitions**

**5 sets crunches**

**5 sets hanging leg raises**

**5 sets Roman chair**

**5 sets sit-ups**

#### **Burst 5**

**30 minutes**

**2 to 3 minute rest periods**

**Biceps 8-10 repetitions**

**5 sets straight bar curls**

**5 sets curl bar curls**

**5 sets dumbbell curls**

**5 sets hammer curls**

**Diet: High protein, high carbohydrates, medium fat**

**Minimum 6,000 calories Target 7,000 calories**

## HYPER PHASE

### The DYNAMIC STRUCTURE™ Chart

Phase A [Endurance] 15-18 reps compound exercises  
 Phase B [Strength] 12-15 reps compound exercises  
 Phase C [Power] 10-12 reps compound exercises

- Each workout lasts 90 minutes.
- Perform 18-20 sets per body part, 5-6 sets per exercise.
- Use 4 compound exercises, (avoid isolation machines).

TIME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
	PHASE A 15-18 REPS		PHASE B 12-15 REPS		PHASE C 10-12 REPS	
Burst 1 (90 minutes)	Thighs Calves	Back Shoulders	Thighs Calves	Back Shoulders	Thighs Calves	Back Shoulders
Burst 2 (90 minutes)	Chest Abs Triceps	Biceps Traps	Chest Abs Triceps	Biceps Traps	Chest Abs Triceps	Biceps Traps
DIET	Low carbs, High Protein					All Fruit No Protein

- Allow 30-45 seconds rest between sets.
- Days 1-5 are Carbohydrate depletion days. Only allow 40 grams of carbohydrates in the diet. Diet should consist of high protein and medium fats (steak and salad).
- Day 6 is protein starvation day. Absolutely no protein for 24 hours. Diet on the 6th day should consist strictly of fruit.
- You must sustain your body weight throughout the 6 day Hyper Phase.

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## CRITICAL MASS

### The DYNAMIC STRUCTURE™ Chart

Phase A [Endurance] 8-10 reps compound exercises  
 Phase B [Strength] 6-8 reps compound exercises  
 Phase C [Power] 4-6 reps compound exercises

- Each workout lasts 30 minutes.
- Perform 8-10 sets per body part, 5-6 sets per exercise.
- Use 2 compound exercises (avoid isolation machines).

TIME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
Burst 1	Thighs	Back	Thighs	Back	Thighs	Back	Thighs	Back	Thighs	Back
Burst 2	Calves	Calves	Calves	Calves	Calves	Calves	Calves	Calves	Calves	Calves
Burst 3	Chest	Delts	Chest	Delts	Chest	Delts	Chest	Delts	Chest	Delts
Burst 4	Abs	Abs	Abs	Abs	Abs	Abs	Abs	Abs	Abs	Abs
Burst 5	Triceps	Biceps	Triceps	Biceps	Triceps	Biceps	Triceps	Biceps	Triceps	Biceps

- Allow 2-3 minutes rest between sets.
- High protein, high carbohydrate, medium fat diet. (Minimum protein req. 1 gram per pound of body weight per day.)
- Minimum daily calorie intake of 7,000 calories. (Target of 8,500)
- Use proper supplementation.

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