



NELSON MONTANA

THE BODYBUILDING TRUTH

Dear friend and fellow athlete,

Think you know about bodybuilding? Think again.

If you really knew how to build the ultimate body in less than six months time, would you keep paying for more? More supplements? More personal training? More courses? More magazines? Would you keep spending your money on the deceptions, the product scams, the bogus supplements, and the false muscle building methods that the bodybuilding marketers propagate to line their pockets? The end result. Your bodybuilding progress is held back while the fat cats get rich.

What if you knew the truth? What if someone were to blow the whistle on the con artists within the bodybuilding world and at the same time, share with you the secrets for packing on thick, dense muscle - fast! And burning off every last ounce of your bodyfat! Sounds unthinkable right? Well, the unthinkable has just happened.



*Every week I get at least one proposal from some self-appointed guru wanting us to publish his latest bodybuilding book. I read them, but never publish them, because basically, they're all worthless. However, the latest book by my friend Mr. Nelson Montana, titled *The Bodybuilding Truth – Insider Secrets You're Not Supposed to Know*, literally blew me away. And it blew away hundreds of ideas that I had accepted as truth for years about the sport of bodybuilding and exposed everything the bodybuilding marketers don't want you to know.*

Nelson Montana is an in your face kind of guy; he tells it like it is. A bodybuilding industry insider, Montana worked for Testosterone Magazine, but got fired because he refused to write an article touting ZMA, a fancy Zinc supplement, as the latest thing for muscle growth. As an insider, he saw more deceptive tactics than you can imagine. It got to the point where he was ready to throw in the towel – instead; he decided to compile this controversial book - *The Bodybuilding Truth*.

Yours in sport,

George Spellwin
Research Director

INTRODUCTION

THE BODYBUILDING TRUTH - Can You Handle It?

It's a fact: Most of the information you've read about building a better body is a lie. The reason is simple. Bodybuilding results are limited – for everyone. As much as we all would like to believe it's an endless pursuit with unlimited opportunity for growth, it is most definitely finite. There is only so much one can do to develop their body to its utmost potential. Yet bodybuilding is also a business, and as with any business, revenue must be obtained.

Therefore, it's necessary to provide the buying public with new incentives, new products, new anything – as long as it can be sold. What's more, much of the so-called information you'll find in magazines and websites is manipulative prattle which isn't especially effective and at times, detrimental. Nevertheless, it's propagated for profit.

Beyond the greed factor, there are other reasons so much information is off base. In some cases, the deceit is intentional. If you knew the fastest way to make the most of your bodybuilding potential, you wouldn't remain a customer for very long and the marketers want your business!

In other cases, the parties involved simply don't know better. And it isn't because they're ignorant – in fact in many cases, they're very knowledgeable. I should know, I was such an authority. I had the certifications, and the titles and the yada, yada, yada. But after being involved with bodybuilding for over 30 years, I came to realize that much of what was promoted was based on skewed information. I've found experience to indeed be the best teacher. And what experience has taught me is that what "the book" says doesn't always pan out in the real world.

I've always tried my best to rectify the abundance of misinformation perpetuated – not out of any great humanitarian gesture, but due more to the fact that I get a kick out of being the guy to say the Emperor has no clothes. As you'll see, he's butt naked.

A select few publications for whom I've worked welcomed this perspective. In some cases, it was an upstart website which turned tail and went mainstream as soon as they tasted a few dollars. (For what it's worth, MuscleMag International was one of the few mags with the guts to print what many thought was way too extremist). While other publications confessed that they liked my work, they also flat out admitted they wanted no controversy. Most companies want the same stuff that has been said so many times before and they don't care whether it's right or wrong.

As a bodybuilding industry insider, I've seen more deceptive tactics than I care to remember, and it sickened me. It got to the point where I was ready to throw in the towel – instead, I decided to compile this book.

The following information is a combination of material which was considered too radical for print as well as a collection of "best of" articles that have been published

throughout the years. I honestly believe that within these pages is everything a bodybuilder needs to know concerning maximum muscular development. But it comes with a caution. Some of this material will fly smack in the face of what you've heard and what you may have convinced yourself to be true. Be that as it may, I have nothing to gain by convincing you my way is better. The goal here is to pass along information which will save you years of wasted effort and thousands of dollars in worthless books, magazines, personal courses, instructional videos and overpriced supplements.

WARNING: The following information may force you to rethink much of what you know about bodybuilding. Read it at your own risk.

THE TRUTH ABOUT TRAINING

THE GENETIC CAP - Decreed At Birth

You may not want to hear this, but here goes: You will only improve so much before you stop making progress.

Hard to take isn't it? As bodybuilders, we all want to believe that growth is continual – progress inevitable. But everyone has a genetic limit which will determine how far they can go. Beyond the physical attributes such as strength, muscularity and even height, innate ability also governs the more intangible facilities of our brain such as talent, memory, and IQ. As with physical development, all of these qualities can be cultivated to extraordinary levels if the individual is persistent. Nevertheless, we all have a built-in cut off point that is determined by our genes, like it or not.

Okay, so we all can't be Michael Jordan, Albert Einstein and Arnold Schwarzenegger, but the greatest factor in developing success in bodybuilding, as in any area of life, is contingent more on attitude than aptitude.

Still, there are differences.

In regards to athletic ability, as well as the capability of putting on muscle, some people have a distinct advantage. And if you think one's ethnicity is a factor, you'd be right. Of course, in these ultra-sensitive, politically correct times, it's somehow taboo to suggest that people are different in any way, even if the difference is a compliment! The truth be told, suggesting that certain nationalities are better suited for an athletic event is really no different from saying that someone of Irish descent is more prone to sunburn than someone of Egyptian descent. It isn't racist. It's reality.

It shouldn't come as too much of a surprise to say that certain ethnic groups excel at specific sports. I don't know about you, but I haven't noticed too many Asians in the NBA, nor are there very many linebackers in the NFL who are of Middle Eastern descent. If I were a betting man, I'd put my money on the black sprinter and the white swimmer every time. Bigoted? Prejudiced? Whacked out of my mind?

Let's look at the facts.

When it comes to sports involving speed, most specifically, sprint performances such as the 100 meter dash, there's a tremendous difference between black and white athletes. (Oddly enough, top contenders in long distance races are split pretty evenly between blacks and whites, except for Marathons where someone from Kenya is sure to win.) In 1994, the top twenty fastest times in sprinting events were all held by blacks. Interestingly, the contestants originated from countries as diverse as the United States, Nigeria, Canada and Great Britain. An examination of the Olympic 100 meter dash over the past thirty years shows an utter domination by black athletes. In the United States, it's apparent that young black American males practically "own" the 100 meter dash at both the high school and college level. The positions in American football that require speed, such as the tailback and wide receiver, are

almost exclusively held by blacks. Over the past four years, there's been a virtual absence of white athletes who have started in either of these positions.

A few years back, gambling impresario and sports commentator "Jimmy the Greek" made an off-handed comment that "Blacks are better athletes because they were bred that way." Although it was meant as praise, this remark caused such a stir among the press that Jimmy was abruptly released from his television contract for being "insensitive." Some folks may want to re-write history, but the facts remain. Yes, black slaves were brought to the west. Yes, the strongest survived. Yes, it was a shameful event in the history of the world. But it happened. And in many ways, blacks today have benefited from their genetically superior ancestors plight. In essence, they come from "strong stock." It isn't something to ignore. It's something to be proud of. It's also the reason blacks dominate many sports.

On the other hand, take one look at the Olympic swimming champions over the last 20 years or so and it's doubtful there are more than one or two non-Caucasian winners. What makes up this tremendous disparity? It could simply be anatomy. Many black bodybuilders complain that their calves are difficult to develop. Even Mr. Olympia Ronnie Coleman has less than astounding calves. The Achilles tendon runs long and high giving a distinct advantage for bursts of speed. White athletes have a higher bodyfat percentage which may aid in buoyancy, allowing for superior swimming ability. It could also have something to do with motor unit activity in various parts of the body. Maybe it's something else. It's tough to say.

When it comes to muscle, the single biggest factor in how much potential growth can be achieved is contingent on one's testosterone level. Do some races have more than others? It appears so. Once again, blacks lead the pack with those of Italian and German/Austrian descent running a comparable second place. Naturally, there are always exceptions to the rule. While American bodybuilders (and that Austrian Import Arnold -something- or- other) have held the top positions, Englishman Dorian Yates single-handedly rewrote the book in terms of muscle mass and density. This raises an interesting question. Besides, rugby (a tough sport if ever there was one) are there so few English professional athletes due to genetics or is it the tradition of "blue blood" upbringing that has kept them estranged from the sports arena? Like many rugby players, Dorian was from a working class background. Oddly enough, there was no evidence prior to his training of his eventual despotism of competitive bodybuilding. He was thin and by anyone's standards, quite average looking, yet he went on to redefine the limits of freaky musculature. Perhaps some ethnic groups have great genes and are simply unaware of it.

Looking at the sport of powerlifting seems to obliterate the ethnic rule altogether. The top lifters are a mix of cultural backgrounds. In the late fifties and early sixties, Asian Tommy Kono unequivocally shattered the standing records. Representing the United States in the Olympics, Tommy held over two dozen world records. For years, nobody came close to matching his totals. On top of it all, he won the Mr. World and Mr. Universe titles.

Some of the very best built athletes are in the sport of boxing which may be the ultimate barometer of strength, speed and overall conditioning. Yet, its participants are determined mostly by their economic status. Rich people simply don't get into boxing. Observe the heavyweight champions throughout the years and you'll get a good idea of the struggling lower class. The Irish immigrated heavily to the United States shores in the 1930's looking for any kind of work. Soon afterward the

champions were Corbett, Dempsey and Tunny. The next underclass to migrate were the Italians and the boxing champs in the era which soon followed had names like Marciano, Graziano and La Motta. Today, the most impoverished people are blacks and Hispanics. Although Hispanics rule the lighter weight divisions, I wouldn't count on a Hispanic heavyweight champ in the near future. Again, it's genetics. We are what we are.

The fact that physical potential is predetermined completely eradicates the misconception that the term "hardgainer" is a myth. Some people are most definitely hardgainers! In fact, the assertion that everyone is equal in their ability to grow muscle is either a marketing scheme or it's based on pure ignorance. Older people can't grow as much muscle as someone in their 20's. Women can't grow as much muscle as men. And as much as it may hurt to admit, most of us don't have what it takes to grow enough muscle (even with boatloads of steroids) to be a world class bodybuilder. Our ancestry has made that decision for us. But that doesn't mean we can't do everything possible to tilt the odds in our favor.

In many ways, those who've been short-changed in the genetics department shouldn't be discouraged for they have all the more reason to make the best of themselves. And when that happens, people are capable of astonishing feats.

Here are just a few examples:

With his huge chest, slumping shoulders and thin legs, Arnold Schwarzenegger was thought to have too imbalanced a physique to be anything more than an oddity.

The name may not be familiar but James Hockman was diagnosed with Muscular Dystrophy as a child. On the advice of his doctor, he began jumping to strengthen his legs. James went on to be a champion high jumper. Bodybuilding pioneer Dan Lurie had a weak heart and was told he wouldn't live past the age of 20. He began weight training to build his stamina and at age 78, he's still going strong.

Ivor Welsh is hardly a household name. He was just a guy who didn't begin exercising until he was 83 years old. At age 88, Ivor ran five marathons.

Jan Horn suffered from and conquered rheumatoid arthritis through exercise and went on to become a national level fitness competitor.

At age 78, Jack LaLanne still works out two hours every day.

Charles Boswell managed to golf in the low 80's even though he was blind.

Larry Scott was told that he didn't stand a chance as a bodybuilder because his shoulders were too narrow. He went on to become Mr. Olympia.

They said Shawn Ray was too short. Lee Labrada, too small. Frank Zane, too thin. They all dug down and got the best their genetic lot would allow. The results speak for themselves.

The bottom line: We all have to play the hand that we're dealt. But if you play your cards right, you just may wind up the winner in the end.

BIGGER AND BETTER

It's time to come clean. For the most part, training articles are designed to be page fillers. I can sum up every training article in three sentences:

Pick weight up.
Put weight down.
Repeat.

That's about it folks – which is what makes me crazy when I hear about exercise experts, or worse "strength coaches" who devise "secret programs" that promote MIND BLOWING MUSCLE GROWTH! Most workout routines have absolutely no science behind them. They can't – building muscle isn't an exact science.

Most of the time, the articles that appear in print are just a bunch of "made up" stuff. And do you know who strength coaches are? They're usually whomever the magazines declare an authority. Quite often they're just muscular guys who lend their names to the by-line and the articles are actually written by a fat, bald ghost writer.

True, there are some legitimate strength coaches who know what they're talking about, but the only reason they obtain acclaim is because they happen to be naturally strong dudes - which has nothing to do with teaching you or anyone else how to get strong. Still, they have credence because they walk the walk. (Who wants to listen to guy who can't bench more than you do?) But just because they're strong doesn't mean they know the secret. Do you want to know their secret? They have good genes.

Many of the higher echelon coaches work with professional athletes and use the accomplishments of the pros as testament to their methods. Well guess what? Not everyone is a professional level athlete. And for every success story, there are hundreds of others who fall by the wayside – but those aren't mentioned, of course.

The bottom line is, if you took 1,000 men and pushed them to the limit, there will be a select few who survive and excel. That doesn't mean it was due to the coaches' methods. It just means they were the best of the bunch. I'm always amused when someone says; "I did so and so's workout and I was sore for days!" Big deal. Do 100 set of squats and you'll be sore for weeks. Anyone can concoct an infinite variety of set and rep schemes (the basis of most muscle magazine articles), but in the end, it all comes down to how much work you subject your muscles to. That work can come in many ways. As a matter of fact, it can come any way.

There are a handful of top notch bodybuilding authors, (such as Dennis Weis) who write detailed, in-depth routines that are wonderful. There's a place for that. Everyone is different and everyone likes to follow a different style of training. Instead of specific routines however, I've always tried to write quirky training features that are fun and unusual – something you may not have thought of yourself. If such an article gets you to go to the gym and try it, then I've succeeded.

The following chapters are examples of some of my favorite workouts for each bodypart. Some employ tactics which are original discoveries. (Such as "A Different Ab Exercise" and "Quick Calves") while others are arrangements of more traditional

exercises which incorporate methods I've learned from world class bodybuilders with whom I've associated throughout the years.

NOTE: You may want to read each workout prior to training a specific bodypart. In this way, the techniques are fresh in your mind. For more "expose" material centering on the falsehoods surrounding bodybuilding, jump forward to the next section – The Truth About Nutrition.

A DIFFERENT ABDOMINAL EXERCISE.....REALLY

Oh no. Not another ab article. You must be kidding. That's the stuff you find in those wimpy fitness mags which have titles like "Trim Down and Tone Up By Summertime!" They're everywhere – every month. You would think that nobody had ever heard of a sit up before. That's what it comes down to, you know.

Every ab exercise is just a variation of the sit up or leg raise. How else can they move? The abdominals are "stabilizing" muscles with a limited range. They "assist" in pulling the trunk forward and "assist" in raising the legs upward. That's the problem. The movement involved in sit ups, or crunches, as well as leg raises are so indirect. The psoas muscles of the upper quadricep are the primary movers in a leg raise. Sit ups are better, but they are usually employed with so much momentum that the rectus abdominals are hardly working. The lower back tends to fatigue (due to the constant stretching) before the abs get a good workout when doing high rep sit ups. I won't even address those ridiculous "abercisers" that attempt to circumvent the neck strain by providing a head rest that winds up pulling your head into a more severely unnatural position.

It's no wonder that most bodybuilders hate doing ab work. It's so unsatisfying. For one thing, there's no pump. The abs are also a very shallow muscle group (which negates the theory that they can get too big. Big bellies are not due to overly muscular abdominals). Much like the calve muscle, they consist of tiny slow twitch, red muscle fibers. You know, the kind that "burn" so badly when stressed. Also, like the calves, abdominal development is mostly determined by genetics and are the least receptive to exercise. That's a lousy combination, isn't it? No fun to work and the slowest to grow. Aaah, let's do chest again.

Hold on. Keep in mind that the abs are the "showpiece" of your body. You can be muscular beyond belief but if your abs are soft, to most people you're just a big fat guy. But someone with an average physique and killin' abs can look spectacular!

A good example would be Frank Zane circa 1979. Frank was all of 180 pounds! Without that granite-like muscularity, coupled with diamond sharp abs, Frank would look like any of thousands of guys who work out. Instead, he was Mr. Olympia three times in a row and deservedly so. If you don't think so, I'd like to take a look at your abs!

Since abdominal development (or lack thereof) is genetically determined and sit up and leg raise movements are ineffective, what can be done? Glad you asked. What I'd like to describe to you is a very unusual movement. In fact, there isn't very much "movement" involved at all. That's the key.

The abdominals are stressed most severely when attempting to "stabilize" since that's their function. This means that they respond to contraction, not movement. To some, this may seem too passive. You know, the guys who might say; "I do 500 sit ups with a 45 pound plate behind my head!" Well, if you think you've got strong abs, get down on the floor and check this out!

A different abdominal exercise

While in a seated position, bend your knees and bring the feet in so they are about 10-12 inches from your body. Keep your feet flat on the floor. Hunch your torso forward, tuck your chin into your chest, and hold your hands on the outsides of your knees. Now lean back while maintaining a hunched position until your arms are completely extended (still holding on to the outsides of your knees). At this point, let go of your knees and extend the arms forward. Are you feeling the strain in your abs yet? If you are like most people, there will be a tendency to start falling backward. This is due to the fact that only the abs are involved in maintaining your balance and the usual "helpers" like the hip flexors are excluded from the equation. It's now time to generate some serious punishment.

Slowly raise the arms so that they are pointing directly overhead (keeping the body hunched forward). Can't be done you say? And I thought you were strong! If this is too intense, extend the feet outward until you can maintain balance. As you get stronger you can bring the feet in closer. Hold the outstretched arms above for 10 seconds. This is considered one rep.

Slowly bring them down and just as slowly, allow the torso to come up to the original position. Rest for 10 seconds. Once again, slowly lean back and repeat the movement. Ten "reps" performed correctly will be one hell of a vicious set. The number of sets performed are up to you. It would be fair to say that after 10 minutes of this type of training, your abs will be screaming for mercy. How badly do you want it?

Abs are stubborn. Fat loves to hang around the waistline. (Why can't excess fat develop around the biceps instead? I can deal with that.) Perform this routine on days when you aren't working any other bodypart. Ab work should not be an "afterthought." Hit them hard as you would legs or chest. After a couple of weeks, you may start seeing definition in your abdominal region you never thought possible. Once you've achieved more muscularity and less fat, it will be easier to maintain. You'll feel better and improve your overall look 1000%. And the babes won't complain either.

CHEST IN TIME

Perfect Pecs In Just 20 Minutes a Week

For most bodybuilders, the chest responds faster and more favorably than any other bodypart. That's due mostly to the fact that the pectorals are made up of type II (white) muscle fibers. These muscles are characterized by their fast speed of contraction and their high capacity for anaerobic glycolysis. In other words, they're easy to "pump."

Another reason why the chest is quickly developed is because the pectoral muscles are rarely stressed to any great extent in most daily activity, so once they're subjected to the stress of lifting heavy iron, they explode with growth! Some theorists believe it may be simply that the chest is so close to the heart, allowing for instantaneous blood flow. At any rate, if the chest is so easily developed, why is it that so few people have great looking chests?

The major problem isn't in obtaining more size, it's the manner in which the chest is trained. We've all seen the guys with the big bunched chest or the chest that bulges or hangs. This is the result of improper chest training. The pecs run across the top of the rib cage and should be slablike in appearance – wide, high and tight. Although a muscle's shape is determined mostly by genetics, the goal is to get the pecs to be as "square" as possible. This requires even development. As mentioned, since the pecs develop quickly, it shouldn't take more than one workout per week (approximately 20 minutes) to achieve this goal. But it has to be done right.

When working any fast twitch muscle group for size and strength, it's best to use compound movements. These can be defined as basic exercises that allow for the use of heavy weights. Compound movements not only place greater stress on the targeted muscle but they implement many of the stabilizing muscles as well. In contrast to the compound movement is the isolation exercise. These are movements that are designed to hit specific parts of a muscle and bring out detail. A perfect example of a compound exercise is the bench press. It's a simple movement, yet it requires proper execution and balance. It also brings many "assisting" muscles into play such as the triceps, the serratus magnus, and the anterior deltoid. It is its simplicity that makes it so effective. But it comes with a caveat, as you'll see.

Unlike a machine exercise, maintaining proper form during the bench press with a free weight barbell requires more of the nervous system, which in turn makes the exercise more anabolic. But a bench press negates movement to a degree because the body is braced. If overloaded, the delts will give out first, which is why so many people blow out their shoulders while benching. Going with the understanding that the bench press is so effective, one would think that it's the best chest exercise. That line of thinking combined with people's adulation of the movement leads many a bodybuilder to think of it as the "main" chest exercise. After all, what's the first question someone asks when they want to get an idea of your strength? It's invariably; "How much do ya bench?"

Unfortunately, too much dependence on the bench press is what leads to narrow, low and ultimately imbalanced pec development. In order to achieve a truly magnificent chest, it's imperative to combine both isolation movements and several compound movements in the proper order. You should also keep benching at a minimum.

The following program combines all of the necessary elements for complete pectoral training. Work quickly, but pay attention to form. Here's a tip. If you're training while watching TV or engrossed in the music playing over your headset, you're not paying full attention. Concentrate!

1) Dumbbell flyes

This is most definitely an isolation move, geared more as a warm up and to pre-exhaust the muscle group. It also works well as a nice stretch. While lying on a flat bench, hold two dumbbells overhead, palms facing inward. Lower the weights out to the sides with slightly bent arms. Raise and repeat for 10-12 reps. There's no need to

go heavy on this movement. Dumbbell flyes are not mass builders. This is merely preparing the muscles for the oncoming onslaught.

Do only 2 sets and move onto...

2) Parallel Bar Dips

This is the very best exercise for developing the chest muscles. Not only is it a compound exercise, but it has the added benefit of requiring the body itself to move through space. Any exercise of this type is usually superior to an exercise that requires the pushing or pulling of a bar. It's the reason squatting is so much more effective than the leg press. Whenever the body moves through space, more muscle fibers are activated.

In order to put the most emphasis on the chest muscles when performing dips, keep your chin on your chest, round your back, lean forward slightly, and hold the feet forward under your face. Dip downwards as low as you can without discomfort and raise upwards into the straight arm position. Keep a steady tempo. This exercise really brings out the "sweep" of the lower pecs. Ten reps should be relatively easy for a conditioned athlete. But here's the kicker. Rest only 30 seconds and repeat the set, again going for 10 reps. If this is too easy, use a weighted belt to add resistance. Do 3 sets to failure, each with only 30 seconds of rest between sets. Not so tough now, are ya headset boy?

Next up is...

3) The Bench Press

Use a weight heavy enough that you reach failure at around 8 reps. Be careful though! Those dips may have taken more out of you than you realize. Start with a comfortable weight. If you haven't reached near-failure by the 10th rep, keep going until you do. Adjust the weight accordingly the next set. You'll only need 3 sets of bench presses...tops. (Remember, the goal here isn't to lift more weight for the sake of lifting more weight—it's to work the chest as efficiently as possible.)

Now we move on to...

4) Incline Dumbbell Presses

This movement helps develop the upper pecs, providing "lift" and fullness. The mistake most people make with this movement is setting the incline too high. Anything above a 35 degree angle will put too much emphasis on the shoulders, negating the inclusion of the pectoral muscles.

Press the dumbbells overhead, paying strict attention to keeping them perfectly vertical to the ground. Palms should face forward but you may want to try and twist the hands slightly so that the pinkies are farther back than the thumbs. This will force the elbows to move "out" slightly, putting additional stress on the pectoralis minor. (The pec-deltoid "tie in") Work in the 8-10 rep range. Rest one minute and repeat. Do 2 sets.

The hardest part is over. Now it's time for a "finishing" movement—something that will flush blood into the area, enhancing the pump and aiding recuperation.

Once again we go with an isolation move.

5) The Cable Crossover

Hold a pair of overhead pulleys, palms facing each other. Lean forward slightly and allow the pecs to pull the arms forward until the knuckles touch in front of the sternum. At this point, continue crossing the hands until you feel a strong contraction in the center of your chest. This brings out the "split" that separates the left and right pectoral. Since this is an isolation movement and not intended to build mass, work in the 15-25 rep range. This is your last set. You're done. Total time: About 20 minutes. If the workout takes longer than that, you were dawdling along the way.

Although lifting heavy is the way to go, don't be tempted to take longer breaks in an attempt to simply lift heavier poundages. The goal is to build muscle, not to impress the guy (or most likely the girl) working out next to you. Besides, another advantage of working out quickly is that it induces the natural secretion of growth hormone. Any strain that continues beyond an hour's time will not release further growth hormone. Get in. Get to work. Get out.

Chest development may be comparatively easy, but it still takes a concerted effort. Don't allow that effort to be in vain. Give this routine a try and you'll soon be on your way towards an armor plated chest.

There's an old expression: "Do you want it fast – or do you want it good?" Luckily, when it comes to chest training, you can have both.

COOKED CALVES–IN UNDER 4 MINUTES

How are your calves? Mine suck. Actually, by normal people's standards, they're pretty good. But by bodybuilding standards...well, let's just say that Dorian Yates wouldn't be intimidated by a toe-to-toe comparison.

So if my calves are only "so so", what makes me qualified to write an article on calve training? Doesn't it make more sense to hear from someone with extraordinary calves? Ironically, anyone with outstanding calve development is the last person to be giving advice on improving the lower leg. They're the ones who have it easy – the lucky few born with lots of fast twitch fibers in the lower legs. That's because, more than any other muscle group, the size and shape of one's calves is determined by heredity. People with a genetic disposition for shapely muscular calves need only to walk and their calves will look good. Bastards.

For the rest of us mere mortals, it's different. Like most bodybuilders, my calves have always resisted growth–so much so that not too long ago they bore a striking resemblance to a pair of pool cues. It was pitiful! I've had to battle for every centimeter of growth but despite all the effort, nothing seemed to help. I tried everything. Then it hit me. It was so simple. (As most "discoveries" are.)

After years of trial and error, I finally found the secret to adding precious muscle tissue onto those stubborn soleus.

HEEL UP–HEEL DOWN–WHAT ELSE? Let's face it, the calves are pretty limited in the way they can be trained. Everything is a toe raise of some sort. Add into the mix that they don't provide a satisfying pump, as is the case when working the chest or

arms. They just burn. The key to killer calves isn't in the exercises, but in the method in which they're employed.

There are two theories to calve training. Because the muscle group consists of mostly slow twitch (red) muscle fibers, the potential for growth is limited. Slow twitch muscles are designed for endurance, leaving the presumption that the calves should be trained with high reps. The opposite school of thought is: because the calves are used to performing thousands of reps each day (walking and running) they need to be "shocked" with low reps and heavy weight. "Light" work won't work since the thick ankle bone and Achilles tendon are capable of withstanding tremendous pressure, therefore it stands to reason that working the calves with a heavy load would be necessary. Both theories are valid. Both theories are flawed.

GET IT OVER WITH!

It's been my experience that calves respond best when worked quickly. That doesn't necessarily mean that the reps should be fast. Instead, the total reps should be condensed into as little time as possible.

That's the key.

It may be hard to believe that any workout session that lasts for only a few minutes can be very effective. Yet, in the case of calve training, it's not only possible—it's preferable.

Here's how it's done.

Pick only one calve exercise. (I prefer the seated calve raise.) Your goal will be to reach 75 reps.

Use a weight that you would normally choose for a twenty rep set.

Complete the 20 reps and continue until you can't do another rep.

Rest just long enough for the burning to subside (no longer than 10 seconds) and continue with as many reps as possible, even if it's only 5 reps at a time.

Proceed in this fashion until you reach the target goal of 75.

That's it! Total time? Under 4 minutes. Granted, it's a very painful four minutes, but four minutes nonetheless.

WARNING! You may feel a tinge of guilt that the routine took so little time but you'll have a different point of view the next day when your calves are aching like they've never ached before! Do not be tempted to do more work! Wait and see. If you're still able to walk, you either didn't go heavy enough or you allowed too much time between "sets."

Once you're able to tolerate this routine, increase the number of reps to 100. Once that becomes too easy, (which I wouldn't count on happening in the near future) add more weight.

I found this routine to be, by far, the most effective method for packing some well earned muscle onto the calves. Even the hardest gainer can add size and shape to their lower leg as long as they can tolerate the torture required to "keep going" and

complete the work out in as short a duration as possible. But make no mistake about it—when following this program it's going to feel as if someone is pouring acid on your calves! (And who says calve training can't be fun?)

Now you don't have any excuses. Four minutes is nothing! But a great pair of calves is a most envious "finished touch" to the complete physique. If this routine worked for me, (stick leg Nellie) it can work for anyone. Give this four minute workout a try for a month and see for yourself if it doesn't make a dramatic difference in the size and shape of your calves.

Even if your calves aren't your best bodypart, there's no reason they can't look good. All it takes is 4 minutes a week. And a high tolerance for pain.

ARE YOU WORKING YOUR BICEPS TO THEIR FULLEST?

(You May be Surprised)

There'll be no preface to this article. There isn't any need to discuss the appeal of the bicep muscle and its importance to one's overall appearance. Everyone already knows that. Instead, let's get right to the point: Biceps training is probably the most simple form of all bodybuilding exercise, yet thousands of bodybuilders fail to stimulate bicep growth with ample success. There's a reason for that. There's also a solution. If you're among those who never seem to get a good bicep pump and would like to rectify the situation, read on.

You're Not Going To Believe This, But...

Although it's rarely addressed, the standard curl doesn't directly affect the bicep – at least that's the case with some people. It all comes down to your anatomical make-up. For an unlucky bunch, the main contributor is the brachialis muscle, which runs underneath the outer part of the bicep. That's the muscle most responsible for drawing the hand toward the shoulder. Naturally, as the resistance is increased, the muscle fibers of the bicep come into play, which is why heavy curling will increase bicep size. Simple, right? Maybe not. Since everyone's point of insertion is different, for some, the brachialis may absorb the majority of stress, thus, the biceps function becomes limited. In other words, the biceps will only receive as much stress as the brachialis will allow.

More Weight = More Growth. But Where?

The obvious solution of increasing the stress on the biceps would be to simply increase the weight, but as many of you may have realized, that tactic doesn't always work. Have you ever used an extremely heavy weight for curls only to wind up with sore forearms the following day? That's because the additional stress was, once again, handled by the brachialis. They're a very efficient muscle. Unfortunately, by being so efficient, they rob the biceps of additional growth stimulation. You may be able to lift more and more weight, but the biceps remain the same size. Very frustrating.

A New Angle On Things:

If you're an advanced bodybuilder, you may have tried a series of angles in order to better isolate the bi's. This is a necessary part of anyone's training. We all need to discover how to hit a muscle with the optimum force and in the case of the biceps that won't budge, the key is to try and eliminate the brachialis as much as possible.

Whatever Works Best –Do The Opposite.

By examining which movements most directly work the brachialis, we can comprehend what not to do. Hammer curls, for instance, will work the forearms and brachi and, interestingly, are easier than standard biceps curls. There's no wonder a cambered bar was once referred to as an "EZ" curl bar. Sure, you can handle more weight – because it takes the strain off of the bicep! It would then stand to reason that positioning the wrist in as opposite a direction as possible would take the stress off of the brachialis and place it more onto the bicep. Therefore, keeping the wrist as straight up as possible will stress the bicep more directly. In the case with dumbbell curls, keeping the wrist a little outward with the pinky higher than the other fingers is better yet. Of course, when doing barbell curls, a wide grip with a straight bar will most directly work the fibers central to the bicep.

Don't Preach.

The preacher curl is a favorite among many bodybuilders but it, too, is more of a brachialis exercise. Think it builds the lower bicep? Can't happen. The entire bicep is either activated or not. There is no "lower" bicep. What the preacher bench does is alleviate stress at the top of the motion making it essentially a "half" curl. So why is it that many champion bodybuilders exalt its effectiveness? It comes down to anatomy. In a fortunate few, such as the phenomenal Larry Scott, the brachi will develop under the bicep resulting in a higher "peak." We should all be so lucky.

The Laid Back Approach:

Going with the "opposite" concept, the best way to circumvent any assistance from the brachialis would be to not lean forward, as is the case with the preacher bench, but to lie backward. Incline curls on an angle of 45 degrees or lower, will place greater emphasis directly on the biceps. Eliminate preacher curls from your routine and replace them with an equal amount of sets of incline curls and you'll notice the difference immediately.

A Unique Cable Curl For Bigger Bi's:

If that deep down ache in the pit of your biceps has been eluding you, here's a movement you're really going to like. Pay special attention to how it's performed, for any deviation won't bring the desired result.

Set the cables on each end of the station at their lowest position.

Use a weight that will allow for good form. It's better to go for more reps than to cheat with too heavy a weight. Grab a handle with each hand using an underhand grip and step forward so that your arms are drawn slightly back.

Keeping the elbows as close to your sides as possible, curl the weight up.

Do not allow the elbows to be drawn up during the curl! This is important! Jutting the elbows up will only displace the stress onto the anterior deltoid and the pectoral minor. Keep the arms down and your elbows back and let the biceps take on the strain.

Don't let the fist "curl" toward you. Keep the wrists level throughout.

Come to a complete contraction. Squeeze hard at the top of the movement.

Do 10 reps and keep the rest between sets to under a minute.

Try and make this move the only exercise you use the next time you work biceps and concentrate on making the biceps work throughout the concentric and eccentric movement. Six to ten sets should get the job done if the intensity is high.

If you've been getting better at curling but have no additional bicep size to show for your efforts, the problem may be that you really haven't been working your biceps at all! Start applying some of these bicep isolating techniques and you soon may realize that there's a lode of untapped muscle on those upper arms. Dig in and get it.

TERRIFYING TRAPS

How To Build Traps So Big They're Scary

The traps are a large and powerful muscle. They can also be an awesome sight. Huge hulking trapezius are a statement. They exude power. You don't get hefty traps by playing sports. You get them by lifting weights!

The traps or trapezius muscles are located at the upper portion of your back connecting into the neck and shoulder muscles. Although the exercise most commonly utilized for training traps is the "shrug," the traps are incorporated in just about every movement that requires lifting. Deadlifts, presses, snatches, rows, and even curls require the traps to do some work by assisting and stabilizing the muscles which are more directly worked.

It then stands to reason that strong traps are an asset toward obtaining increased overall strength. Unfortunately, their development is often overlooked.

One reason for the lack of attention paid to this neglected bodypart is the limited motion of the exercises involved in their development. Some novice bodybuilders conveniently forget to do "uncomfortable" exercises, opting instead to overdo the ones which they enjoy.

There's also a "trap" to trap training. (Sorry for the pun, but it was just too easy) Traps can respond pretty quickly. If trap development exceeds shoulder development, it may actually make your shoulders look narrower. Too much trap development can also promote a hunched appearance, leading to the infamous "no neck" syndrome. However, if the traps are underdeveloped, the entire upper body will look spindly. The growth of the surrounding bodyparts may become stunted due to the inability to handle heavier weights. No doubt about it, if you want increased upper body strength, you'll need stronger traps!

The following is trap routine which is sure to pack on size and strength through the traps and upper back. It should be performed once a week.

It starts with...

SHRUGS

The classic trap builder. Although this movement is usually executed with a barbell, dumbbells allow for more freedom of movement. (A Trap Bar also works well.) Doing shrugs in the Smith Machine is not recommended due to the restricted range of motion. Also refrain from "rolling" the shoulders which places unnatural stress on the rotator cuffs. (If you prefer to do so, keep the weight very light.)

I suggest executing shrugs with dumbbells while seated to avoid cheating. Wrist straps are also recommended since poundages should be heavy. The straps will keep your hands from giving out before the traps do.

While holding a heavy dumbbell in each hand, simply shrug the shoulders up as high as possible. Hold for 2 seconds. Allow the shoulders to drop down completely. Do two sets of 10 reps.

UPRIGHT ROWS

Often thought of as a shoulder exercise, upright rows also work the traps very effectively. Some find that keeping a close grip places more emphasis on the traps while others swear the wider the grip, the more trap involvement. Try a few sets of one or the other and see what works best for you.

The upright row is a movement which some people find uncomfortable. Some so called "experts" in the field dismiss it as too straining to the shoulders. The truth is, all upper body exercises will stress the shoulders to some degree. The golden rule of bodybuilding is; if it hurts – don't do it. For those of you who have no problem with the upright row, you'll find it to be a very effective movement. Once again, go heavy. Raise the bar in a steady manner paying special attention to the descent. Keep the elbows high to avoid straining the wrists. Go for 8-10 reps with proper form, then cheat a few more reps after that. Do three sets.

POWER CLEANS

This is not only a great trap exercise, it's also one of the very best movements for developing functional strength. Stand with your feet firmly planted on the ground. Grasp a heavy barbell with a slightly wider than shoulder width grip. Keeping the back as straight as possible, use all the momentum you can muster to lift the bar off the ground and up to your shoulders. (As if to begin a press) Lower and repeat. Keep it heavy enough to only be able to do 4-6 cleans. Rest long enough to be able to perform another 4-6 reps.

SEATED ROWS WITH ELBOWS HIGH

Seated rows are a great overall back exercise which emphasize the rhomboids. But with a simple alteration in arm placement, they also hit the teres major (upper lats) and the traps.

Row in a normal fashion using a V handle while keeping a tight arch in the back. The only difference is; instead of keeping the elbows close to the torso, lift them up and out to the sides. This shifts the emphasis to the upper portion of the back. It also reduces leverage so you may have to cut back a bit on the weight.

This exercise adds tremendous thickness throughout the back. Use a full range of motion, extending forward and contracting completely. By this time, your traps will really be feeling it. Try to get 12 reps with good form. Two sets ought to do it. Well

developed trapezius muscles will complete the look of a powerful physique. If they respond a little too well, skip a week here and there and everything should fall into place.

Total trapezius development can add a blast of mass to even the most slender torso. Well built traps are also vital to upper body strength. Give this routine an honest effort and after a few weeks you'll have plenty of both.

TEN STEPS TO KILLER QUADS

Load The Rod and Thrash The Quad

It's leg day. The choice is clear. You either dig in and accept the fact that in order to obtain more thigh size, you'll have to endure some pain, or you wimp out and "take it easy" – work 'em light – do a "little bit." Any way you choose to rationalize the latter, it'll still spell the same result. No growth. Yup, you're just going to have to face the consequences. No other bodypart requires you to put out more of an effort than the legs – attributable to the fact the legs are able to withstand the greatest amount of stress. A successful thigh workout requires a poundage overload that not only will force them to work harder but will also tax the entire adrenal system. Equally distressing is the fact that in order to achieve a pump in the quadriceps, hamstrings and gluteus, there's a drain of blood from the rest of your body. This produces that "queasy" feeling in the stomach, so familiar to those who experience the torture of heavy squatting on a regular basis.

Okay, so it's gonna hurt. But leg growth doesn't occur through pain alone. Training smart is just as important as training hard and when it comes to working the legs effectively, you may be shortchanging yourself out of optimum results. This can be the result of following erroneous advice or simply not taking advantage of some little known yet highly efficient strategies.

In order to get the most out of those heart pounding, nausea inducing leg workouts, the following ten tactics will provide a guide towards achieving optimum growth in minimal time.

1) One and a Half Squats.

Start with a slightly lighter weight than you would normally use for squats until you get the hang of this movement. Descend in the normal fashion, but on the way up, stop at the midway point. Hold this position for four seconds. Now, return to the bottom position. Come up through a full range of motion to a standing position. This movement puts tremendous stress on all the muscles of the legs as well as the glutes. As mentioned, you won't be able to use quite as much weight as with standard squatting, but what do you want... to impress the other guys at the gym with how much you can lift, or bigger legs?

2) Use the Leg Extension Sparingly.

No one ever built massive quadriceps from doing leg extensions. Have you ever tried "cheating" your way through a leg workout by utilizing only leg extensions? If so, I'm sure you realize that the results are far from impressive. The leg extension is great as either a "finishing" movement or as a "pre-exhaust" exercise. In order to achieve the best results, leg extensions must be used in conjunction with a compound

movement. The main reason for the leg extension's lack of effectiveness is that it's essentially an unnatural movement. Where in life does the leg extend against resistance in that manner? The squat, on the other hand, is the basis for all leg movement.

Don't neglect leg extensions completely. Just keep in mind that they should be an adjunct to some variation of a squat movement and not the major part of any leg session.

3) Partial Reps.

All too often, partial reps get a bad rap. The thinking is that they limit the muscle's range of motion, therefore limiting the muscle to work to its utmost. This would be true if partial reps were all you did, but using them in addition to full range exercises can prove very beneficial. Another advantage to incorporating partial reps, is that they allow you to use heavier weights. This is especially valuable when it comes to leg training. Partial squats with a workload beyond what you usually use, can more intensely work the lower quadriceps as well as get the body accustomed to experiencing the "feel" of more weight. This sends a signal to the brain that it must adjust to a newfound stress. That, in turn, prepares the endocrine system to endure for heavier loads. By performing partial reps with increased poundages, it's possible to increase strength within the full range of motion. This is a good technique to try with the Smith Machine where the depth of the squat can be better gauged by setting the pins so that the knees won't bend past parallel point. Try adding an extra 20% to your squat and knocking out a few sets of "short" squats. What also works well is adding a few partials after completing a regular set when a full range can no longer be completed, but a few "little" ones can. This can provide that "something extra" that'll blow those thighs up like never before!

4) Skip the Knee Wraps.

Unless you're attempting a one rep max (a dubious endeavor, unless competitive powerlifting is your goal), wrapping the knees provides no benefit. It's interesting that so many people look upon knee wraps as "protection" when in fact, wrapping the knees causes compression and consequently, abrasion between the vastus medialis and the patella. True, wraps will allow you to use more weight but once again, what's the goal? Lifting more weight or working the thighs as effectively as possible?

5) Supersetting Stiff Leg Dead Lifts with Leg Curls.

If you're truly serious about hammering those hamstrings, try this merciless superset combination. Perform a set of stiff leg deadlifts with a weight that will bring you close to failure after 10 reps. As soon as the set is completed, go to the leg curl and execute a set of 10 reps. With as little rest as possible, repeat the process. What makes this particular superset so effective is that it works the muscles with contrary motion in that one exercise (dead lifts) causes the hamstring to work from a stretched to a relaxed position whereas the leg curl works the muscles from a relaxed to contracted position. Complete four total sets of this deadly duo and you can expect some soreness in the backs of your legs that might have you walking a little wobbly for a while.

6) Know the Difference Between One Machine and Another.

Very often bodybuilders will use a "shotgun" approach to leg training, in that they'll implement a variety of exercises in an effort to hit the muscles from every possible angle. But if a specific exercise isn't targeting the area that you're looking to work, it can wind up being nothing more than exhaustive wasted effort. For example, the

Hack Squat machine and the Leg Press may appear to be similar versions of a "squat like" movement but they're extremely dissimilar in function. The Hack Machine will put exceptional stress on the lower quadricep and inadvertently, the knees. The leg press allows for a much deeper bend in the legs which hits the glutes to a greater degree. (Which in many ways, is much better than those "butt blaster" machines specifically designed to target the glutes). If you have bad knees—stay away from the Hack. If your glutes are growing more than you would like—go with the hack and avoid the leg press.

7) Static Lunges.

When you think of a lunge, you probably think of stepping in, or back into the lunged position. Why not stay in the lunge and work one side at a time? Stretch into position, making sure that the front knee doesn't extend too far over the shin. Now, remaining in that position, "dip" down until the rear knee just touches the floor. Continue with this mini knee bend movement and soon it will feel as if your legs are on fire! Talk about a vicious pump! Repeat with the opposite leg outstretched. This can be done with either a barbell across the shoulders or with a dumbbell in each hand. For an additional stretch, elevate the rear foot on a bench.

8) 20 Rep Squats.

Also referred to as "breathing" squats, 20 rep squats are thought by many to be the most "anabolic" of all exercises. Most people think of high reps as a defining technique, but when it comes to squats, make no mistake—the stress to the quads can get mighty intense by the time you hit that fifteenth rep! High rep squatting is also excellent for inducing the natural release of growth hormone.

Take as long as you need between sets. You may also need to take in a few deep gulps of air in between reps. (hence the term "breathing" squats) This is a movement that should be performed as the sole leg exercise. Six sets of twenty reps with a moderate weight is a lot tougher than it sounds. No doubt about it. These are hard. But they work.

9) Use a Variety of Squat Stances.

A narrow stance will delegate the majority of the strain on the frontal quads (the vastus laterals and the rectus femoris). A wide stance will incorporate the abductors and the sartorius, which provides that "sweep" to the inner thigh. Experiment with different widths and see what works best for you.

10) Train Hard, or Don't Bother.

When it comes to training legs, if you're not feeling up to a hard workout, don't go to the gym. I wish I had a dollar for every time I've heard someone say that they didn't have the energy to work legs, and worked another bodypart instead. Do that enough and you'll wind up working legs half as much as the should. Stay consistent. Keep a regular rotation of training each bodypart once a week and stick with it. If you need an extra day of rest—take it. But come back the next day and hit those legs with a vengeance!

Follow these ten tips and you'll soon be on your way to stronger, beefier thighs. Some of these suggestions sound difficult? Damn straight! Hey, I only said that they'd help. I never said it was going to be easy. Then again...easy isn't synonymous with successful leg training. It's still gonna hurt, but at least you'll have something to show for your effort.

Leg day is near. Will you ignore the challenge? Or will you do whatever it takes? The choice is clear. HOLD IT!

BUILD MELON SIZED DELTOIDS – WHILE HARDLY MOVING A MUSCLE

Everybody has a favorite bodypart that they love to show off. Short sleeves allow the world to see a muscular pair of arms. If someone has a great pair of legs, there's a good chance you'll see them wearing short pants, long after the weather starts turning cold. Good abs? Open up that shirt! But even while fully clothed, nothing depicts the image of masculine muscularity more than a broad set of shoulders. Without that classic "V" shape that a well built set of delts provide, the other bodyparts will fail to impress. It all starts at the shoulders.

As imperative as the shoulders may be to a bodybuilder's overall appearance, they are an often misunderstood bodypart. Often neglected, and more often–overtrained.

It's critical to realize that the deltoids come into play in almost every upper body exercise. When working the pecs, either with bench presses, flyes, or cable crossovers, you're also stressing the anterior deltoids. While hitting the back, the posterior delts get a workout as well. If you train shoulders the day after training chest or back, chances are that the shoulders may not be completely recuperated. If you wait too long, you'll have to hold off for a while before you hit either chest or back again which can throw off your whole schedule. Compounding the problem is the fact that many bodybuilders will train the shoulders using similar movements to those used while exercising the chest and back. Performing seated dumbbell presses the day after doing incline bench presses is hammering many of the same muscles, most notably the front delts, which absorb the majority of stress in both movements. The problem here is twofold. One–the muscles in question become overtaxed which will inhibit growth. Two–this over-exertion disallows the proper stimulation for the areas of the delts that need to be stressed – mainly, the lateral head.

The key to sensational shoulders is one of illusion. If the shoulder cap is well defined, it will look larger, and, consequently, more impressive than if they were merely a little bigger, yet smooth. By adding just a half an inch onto the lateral head of each deltoid, the "width" of the shoulders will appear to increase dramatically. Incidentally, wide shoulders will also make the waist appear slimmer, further enhancing the complete package.

So how do we properly stimulate deltoid growth while simultaneously avoiding overtraining? The answer may be in not doing much at all. Much movement that is. The deltoids are, for the most part, a small muscle group, made up primarily of slow twitch, red muscle fibers. That means that their growth will be limited in terms of overall size. When it comes to building bulging, round delts with deep separation, this muscle group responds extremely well to partial movements and static holds. And the emphasis should be towards targeting the lateral head and bringing out the detail.

The following routine is designed especially for that purpose. Some of these movements may seem odd at first, but stick with them. After a while, you may want to experiment on your own to find the range of motion that provides the best results.

Once you learn to control the "lack" of movement, you'll start seeing striations throughout the entire shoulder region that you didn't even know you had.

1) THE SUPERSET WARM UP

Don't dismiss warming up the shoulders as a perfunctory endeavor. Shoulder injury is the number one debilitation commonplace to bodybuilders. Almost all shoulder damage can be avoided by properly warming up. The good news is that the shoulders pump easily. It doesn't take too many sets to get a "burn" going. In this phase of the routine, work the exercise in its full range of motion and stick with a weight that's light enough to complete at least 15 reps. Yeah, I know that seems like it's on the high side, but again, these are slow twitch muscles we're working with and we're looking to get as much blood into the area as quickly as possible. (This also acts to "preexhaust" the muscles which is an extremely effective technique for instilling intensity without overtraining.) Begin with seated rotating dumbbell presses. This will be a full range of motion.

Begin with holding the dumbbells with your palms facing your chest. As you slowly raise the weight straight overhead, twist your hands so that the palms will be facing forward by the time they're in the extended position. Pay special attention not to let the bells collide at the top of the motion. Keep them shoulder width apart. At the top of the movement, with elbows unlocked, "force" the elbows outward and backward. This "non-movement" will add stress to the delts. Slowly return to the beginning position. Due to the potential strain on the rotator cuff, it is crucial to use a light weight for this movement. It's better to go too light than to go too heavy. You can always add more reps.

Immediately following the seated presses, stand up and with the same dumbbells, perform a set of upright rows. A mistake a lot of people make when doing this exercise is that they try to get too much "height." This puts undue stress on the wrists while accomplishing little in terms of muscle growth. Raise the bells just up to the upper chest. Make sure the bells stay approximately 6" in front of the torso. Keep this movement strict without using momentum of any kind. No "swinging!" One way to assure against cheating is to pay attention to keeping your knees locked. This will prevent that little "jump" you so often see people employing while executing upright rows.

Rest long enough in order to complete this superset one more time. Now, you're ready for the hard part.

2) STATIC LATERAL RAISES

Using a weight slightly lighter than you're used to using for lateral raises, perform a lateral raise but STOP when your arms are parallel to the floor. Keep a slight bend in the elbows. Hold this position for a count of eight, then slowly lower the dumbbells to the side. Now you know why a light weight is necessary! Shoot for 3 sets of 10 reps of these lateral "holds." Prepare to be humbled by the fact that not moving a light weight can get pretty painful!

3) "W" PRESSES

Lift a pair of dumbbells overhead in the standard fashion, palms facing each other. Now w-i-d-e-n your arms so that your hands are further out to the sides, simulating the look a of a "W". Do so a few short pumps and then hold the position for 10 seconds. Repeat the short pumps until you feel as if you're being stabbed in the

shoulders with a hot knife. Resist the urge to whimper like a schoolgirl. (It's only pain.)

4) MINI PRESSES BEHIND THE NECK

Some people have a problem with presses behind the neck but if they don't cause you discomfort, they can be the greatest movement for increasing shoulder width. This variation is particularly punishing—and effective. Begin a press in the normal fashion but at the halfway point between the starting position and the extended position, stop and hold the weight. Now, while the bar is in that position, perform some "mini" partial presses, moving the bar just a few inches. Now complete the press but on the descent, repeat the hold at the halfway point. More "partials", then back to the start. Three sets should be plenty as long as you keep the rest periods between sets under two minutes. Once again, reps in the range of 10 to 15 is the theme. These are murder! But they work.

You're almost out of the woods. Just one more movement and you'll be cooked.

5) LEANING CABLE CONTRACTIONS

This is similar to a lateral raise with a cable but with a few variations. For one, keep the cable behind your back instead of in front of you. With your free hand, hold on to the supporting bar and "lean" your torso away from the rack. Raise the cable just a few inches and hold it. After about four seconds, you'll feel quite a bit of tension in the medial delt. At this point, continue on up and complete the raise. When the delt feels as if it's completely fried, tag on a few "cheating" lifts to properly insure a total thrashing! Just two sets with each arm should be plenty.

As you can see, this routine doesn't involve a lot of exercises or a lot of sets. A good majority of the working sets doesn't involve much movement! Yet, it targets exactly what you want to hit. The end result will be wider, shapelier shoulders.

Now give the shoulders a good stretch in all directions.

Broad, square shoulders are the hallmark of a great physique. Give this routine a try for a couple of weeks and see for yourself what a difference it can make. When your shoulders look better— everything looks better. You won't even have to take your shirt off for people to notice. But you're gonna look great in a tank top.

TOTAL TRICEPS TRAINING

The Secret to Becoming "Well Armed"

Go to the mirror and straighten your arm down by your side. That's right. Right now. Take a look at your triceps and you'll notice three distinct "heads." Can't see them? We better get to work.

Nothing looks more impressive in its relaxed state than a meaty pair of triceps. When the arms are hanging loosely at the sides in a short sleeved shirt, it's the triceps which dictate the overall appearance. All too often, novice trainers work the biceps to death in an effort to increase arm size. It would make more sense to put the emphasis on tricep training since they comprise the majority of the arm's potential size. If the tris look good, your arms will look good.

As indicated in their title, the triceps are made up of three separate muscles. Although these muscles work in tandem, certain movements will stress one more than the other. It's nature's way of assuring efficiency. Even though the muscle moves in one direction, at various points, if one part fails, another picks up the slack. (The body's an amazing mechanism, isn't it?) If bigger muscles are your goal, you have to hit them from all angles.

It's important to note that proper form is essential to effective triceps training. A common mistake when working the tris is the practice of using too much momentum. Controlled steady movement is a must. If there's one lesson that should be required to comprehend before proceeding with this exercise program, it should be: "yanking" a weight from point A to point B is not the goal! Working the muscle through the full range of motion is.

A good time to work triceps is after working the chest or shoulders. Any pressing movement utilizes the triceps, therefore, they'll already be warmed up which allows you to approach your first tricep set with full intensity.

The following routine is designed to hit all three heads of the triceps. Let's start with the first exercise.

1) Standing Tricep Pressdowns: Emphasis – The Lateral Head

This exercise is a favorite for bringing out detail and separation. Begin by grabbing the pushdown bar with an overhand "false" grip. That means the thumbs remain on top of the bar. In this way, the hands become extended "handles", eliminating the tendency to squeeze the bar too tightly. Keep the hands 12 inches apart.

Start with the bar level with the lower pec line and in a smooth controlled movement, press downward until the arms are fully contracted.

Return to the original position in a slow, steady fashion.

Stay conscious of keeping the torso upright. It's natural to want to use body weight to assist in pushing the pulley down. Make the triceps do the work! After the first set of 10-15 reps, rest one minute and repeat for as many reps as you can manage. You should already be feeling a pump in the tricep muscles by this time.

2) Single Dumbbell Triceps Extensions: Emphasis – The Medial Head

MRI studies have shown that tricep extensions are an extremely effective movement when it comes to recruiting the muscle fibers of the medial head which creates that coveted "horseshoe" appearance. It also allows for a greater stretch of the triceps than almost any other exercise.

Grasp a single dumbbell firmly with both hands and place your palms flat against the underside of the upper plates.

Bring the elbows close to the sides of your head and lower the weight slowly. Allow the dumbbell to extend behind your head until the hands go as far down your back as possible.

Lift the bell back upward to full extension.

There's no need to "jam" the elbows at the completion of the movement. Once the arms are straight, the triceps have worked to full extension. Forcing the elbows into a locked position will only cause unnecessary stress to the joints and tendons.

Executing this movement in a seated position will prevent cheating, since you won't be able to spring the weight up by bending and straightening your legs.

Single dumbbell extensions are outstanding for accentuating the sweep throughout the lower portion of the triceps. Do 2 sets of 10-12 reps.

3) Kneeling Rope Pulls: Emphasis – The Long Head

The kneeling tricep extension with a rope pulley requires intense concentration. It's all triceps!

This exercise requires a bench approximately 16" high, positioned sideways, and a rope pulley attached to the upper section of a cable station.

Facing away from the pulley, grasp the rope behind your head.

Kneel down on the floor. (You may want to brace your feet back up against the frame.)

Place your elbows on the bench in front of you, shoulder width apart.

Keeping your head down, extend the rope forward.

When returning the rope to the original position, be sure the hands go back as far as possible (your hands should almost touch the back of your neck) while keeping the elbows on the bench.

Push forward in a smooth controlled motion.

Contract hard at the full extension point.

Go heavy! This is a terrific mass building exercise and in order to derive the most benefit, it's imperative to use substantial resistance.

Shoot for 2 sets of 8-10 reps. Once you've reached failure, continue with a few partial reps at the extended portion of the movement. Don't quit until it burns. By the time you finish the second set, your tris should be cooked. But the fun isn't over yet. For total obliteration, you'll need to do one more exercise.

4) Skull Crushers

This movement is affectionately named because the range of motion looks as if it comes precariously close to clonking you on the forehead. Try not to let that happen okay?

While lying supine on a flat bench, take an overhand grip on a loaded barbell. Either a straight bar or an EZ curl bar will work well for this exercise.

Hold the barbell overhead at arm's length. Bend the elbows so the bar comes down to the top of your head. Return to the starting position. The elbows, of course, should be the only joints moving throughout the exercise.

Do 3 sets of 8-10 reps or until you reach failure. Skull Crushers are tough but they may well be the best movement for packing overall mass onto all three heads of the triceps.

Stick with this routine and before long you'll be sprouting hefty slabs of beef on the backs of your arms. Then the only thing left to do is make sure you're stocked up in short sleeve shirts.

BACK IN ACTION - IF YA WANNA GROW - YA GOTTA ROW

Admit it. Your back training hasn't been nearly as intense as it could be. How do I know that? Take a look around most any gym and you'll see for yourself. With all the super-smooth machines and cable devices designed to train the back, it's almost as if an entire generation of bodybuilders have dismissed the most effective back developer there is – the barbell row.

The main reason for the abandonment of the barbell row is the fact that it's so very uncomfortable! Unlike pulley pulldowns, low cable rows or even machines that are intended to simulate the action of a barbell row, a free weight row requires the back to stabilize on its own accord. Nothing on which to lay face down, no back supports, no knee braces, no platforms – just the natural support of your spine and the erector muscles in your lower back. And if that isn't tough enough, the bent over position places additional stress on your ability to breathe. Top it all off with the fact that the hamstrings are placed under tension (in order to stabilize the upper body) and it would appear there are too many factors working against you in order to efficiently work the latissimus muscles you're looking to target. However, the perception is flawed.

When the body is braced, the lats may be more specifically isolated but the end results are sub par. That's because the back is a muscle group that works as a unit. The latissimus, rhomboids, and erector spinae are all components integrated to work in tandem. Even the trapezius gets involved, yet most bodybuilders treat this muscle group as a separate entity. They think of the traps more as shoulder muscles but what they don't realize is that the traps extend down along the spine to the erectors. When these muscles contract, they effect muscles throughout the back. For instance, when the traps are activated, the scapula moves down and in, resulting in deeply etched grooves throughout the back. When performing exercises like lat pulldowns, these muscles barely come into play! That's the reason why so many trainees who rely on machines have shallow backs. They may have decent lat development in that there's some width when viewed from the front, but when they turn around – nothing.

If you want thick, dense muscle throughout the back it's imperative that you work the muscles in which nature intended – as a group. The back must be forced to stabilize, and all the muscles forced to work. It must also be worked heavy, with no support and no assistance. That means awkward, breathing debilitating, painful, uncomfortable barbell rows. There's no way around it.

Proper technique when performing barbell rows is of utmost importance. Loose lifting and heaving of the weight won't work the muscle sufficiently and can lead to potential damage. It's necessary to remain strict and contract completely. Again, a very

uncomfortable action, but one that's vital if complete development is the goal. Remember, the function of the back is not only to pull, but to arch. By not completing the "final" phase of the exercise (the contraction), full development is impossible.

The back must also remain in a contracted position in order to prevent injury. As long as the lower back is flat and slightly arched, it's virtually impossible to injure, yet back injuries are the most common of all training impairments. This is almost always the result of hunching the back, which compromises the integrity of the small muscles in the lower region. This explains why some people can hurt their backs merely by picking up something light with incorrect posture. Yet, as soon as the lower back muscles are stabilized, it's possible to lift tremendous poundage – another example of how the back is designed for heavy lifting.

Now that we've established the need for barbell rows, let's examine proper technique.

A common lament among novice trainers is they have a hard time "feeling" the back. (out of sight, out of mind) When rowing, you must envision how the muscles are moving in order to get the best results.

Keep the poundages light for the first set and concentrate on the muscles throughout the full range of the movement. When you're ready to go heavy, you must be prepared to sacrifice a little form in order to handle more weight.

At all times, you must emphasize squeezing and contracting throughout the concentric phase.

Bend down in front of the barbell while staying conscious of keeping the lower back tight.

Grab the barbell with an overhand grip. (Note: Using an underhand grip is an excellent variation that will place more emphasis on the lower lats. Incidentally, the underhand barbell row was a favorite of Dorian Yates – which is as good an endorsement as I can think of.)

Maintaining the arched back position and keeping the arms extended, use your legs to raise yourself up until your torso is parallel to the floor. The legs will remain slightly bent. Row the bar up and just under the chest. Once the bar is in the contracted position, hold it and contract the back muscles together for two seconds. S-l-o-w-l-y lower the bar down, once again staying aware of keeping the back arched. Think of your arms as handles, serving as "hooks" for the back muscles. Make your back do the work! At the end of the set, bend the knees to lower your body in order to return the bar to the floor.

That's all there is to it – but it's easier said than done. Heavy barbell rows are brutal. They not only demand a lot physically, they require extreme concentration in order to derive ultimate benefit and prevent injury. They aren't a "knock out a few sets and get it over with" exercise by any means! They're the real deal. And when you set your mind and motivation toward making them the main movement in your back workouts, you're going to see some drastic changes. It wouldn't be an overstatement to say that all you need for a great back are chins and barbell rows. Everything else is just fluff.

Make Barbell rows the sole exercise in your back training routine for one month. In this way, you'll accurately determine the difference this one movement makes. Work

in the 10 rep range, making sure you can complete at least 6 reps with perfect form but can't complete more than 12 reps without a little "cheat." Shoot for 8-10 sets. And prepare for some serious sweating.

Thick, defined back mass from all angles will be yours. All you need to do is supply the effort. It'll be worth it, though. You're going to look big and broad – coming, and going.

10 BODYBUILDING MYTHS THAT MUST DIE!

"A little bit of knowledge is a dangerous thing." This hackneyed expression still holds true, and when it comes to bodybuilding, it's more relevant than ever.

How do so many misnomers and half-truths make their way into the muscle building foray? The main reason is a phenomenon known as "parroting." Once a belief, a theory, or a methodology is accepted as credible, its influence spreads and soon it's repeated by authorities and laymen alike until it soon becomes standard thinking. Opposing viewpoints are often looked upon as erroneous due to the fact they contradict what has become known as "correct" thinking. It's the "flat earth" mentality. It sounds reasonable. Everybody agrees. But it's wrong. Nevertheless, if you want to disprove it, you've got your work cut out for you. After all, it's easier to believe a notion that has been repeated a million times than one which is being uttered for the first time.

In the case of bodybuilding myths, what is too often accepted as fact may not only be a worthless endeavor, it can be far from benign. Utilizing improper techniques, poor dietary choices and most grievously, irresponsible drug use, will not only hinder your goal of maximum muscularity and optimal strength, it may actually inflict harm on the body you're trying so ardently to develop.

Some of the practices stated in this article may be open for debate. If nothing else, keep an open mind to the logic of each statement. As is always the case, everyone is different and what works for one may not work for another. Yet, if you've been going by "the book" and are dissatisfied with your results, maybe it's time to re-evaluate some of your bodybuilding tactics.

Common Conception #1:

Heavy training hits the larger white muscle fibers, therefore, you must train heavy if you want more mass.

Maybe not. The biggest factor is your individual body type. For example, powerlifters aren't big because they lift heavy. They lift heavy because they're big! Some people are born with more white fibers than others and those are the people who will respond best to heavy training. (4-8 reps per set) Of course, some heavy training is necessary for everyone in order to build even the limited amount of white fibers, but if you're the type who has more of the thin, red muscle fibers, the 10- 15 rep range may result in more overall development.

Common Conception #2:

When attempting to lose fat, several smaller meals are superior to three larger ones.

This isn't necessarily so. Although smaller meals will provide a more even blood sugar level and distribution of nutrients, the bottom line is still how many calories are ingested over the course of time. A big problem with eating smaller meals, more frequently, is the fact that no meal is truly satisfying. That leaves you always craving food and "nibbling" more calories than you should. What also may occur is, after a day of small, unfulfilling meals, you finally crack and go for the pepperoni pizza! For some people, fewer larger meals provide a satiation that lasts for many hours, resulting in less cravings and less overall calorie consumption.

Common Conception #3:

Aerobics should be performed on an empty stomach for maximum results. This is a theory which has gained popularity even though it cannot be accurately gauged. It's based on the premise that, if the body is deficient in carbs, it will more effectively use fat for fuel. But carbs are present in the body even if no food has been ingested for hours. Another fact to consider is, if the body is carb depleted, it quickly goes into a catabolic state, especially when subjected to long duration repetitive stress. (i.e. aerobics) Considering these facts, the practice of running on an empty stomach could be working against your goals.

Common Conception #4:

If you've never used steroids before and are thinking of starting, you should take advantage of your virgin receptors and use a high dose for the most gains.

This one sounds almost too stupid to be believed but this philosophy has gained considerable credence through the ramblings of several self-professed drug gurus, many of whom permeate the Internet. Following this mentality, why not recommend that since gains from weight training are quickest when beginning a program, beginners should train everyday for 4 hours a day! The exact opposite is true. In the case of steroids, because the body is so receptive to a new stimulus, very small doses will usually bring outstanding results. Bombarding the body with excessive dosages will only result in a greater tolerance, which will subsequently require higher and higher dosages in order to obtain results in the future. Anyone who encourages excessive use or superphysiological dosages is irresponsible and untrustworthy and should be ignored, regardless of how knowledgeable they may be in the chemistry of anabolics.

Common Conception #6:

In order to avoid injury, a weight belt should be worn at all times. There is absolutely no scientific evidence to support this theory. A belt produces a false sensation of security because it produces a tight, compressed feeling. In no way does this protect the muscles of the lower back. Learn proper technique and it's almost impossible to injure yourself. Depend on a belt for protection and you're headed for trouble.

Common Conception #7:

Rest is as good as sleep. Wrong! The body recuperates much more completely when in a deep sleep. Just being inactive doesn't cut it. Nothing will make you feel weaker than being in a sleep deprived state. At the same time, almost any problem or illness can be cured with a good nights sleep. If you want the most muscle growth, sleep eight hours a night. Nine is better.

Common Conception #8:

Time released nutrients are better absorbed. The body absorbs nutrients in a very efficient manner called digestion. There's no need for time released nutrients. Along

the same lines, constipation is a subject often addressed in those ancient health manuals yet almost never mentioned in contemporary bodybuilding magazines. No wonder – it isn't exactly a compelling topic. What's interesting to me is that the absorption of nutrients is such a hot topic but the proper elimination of waste may very well be the most important aspect in getting a constant flow of fresh nutrients to your muscles. Also, the longer you're "backed up", the more toxins are released into the bloodstream.

Common Conception #9:

Have a high glycemic carb drink immediately following a workout. Part of the reason for aerobic training is to deplete carb calories. Why put them right back? Protein would be a better choice but even this theory is overrated. The bloodstream contains nutrients, even after working out. (unless you've been fasting) Food timing isn't an exact science. The body doesn't know if your work out is over after you walked on the treadmill or after you walked home from the gym. The fact that your metabolism is elevated following a workout makes it a great time to burn excess calories. Rehydrate with water, not empty calorie sugar drinks.

Common Conception #10:

You don't need supplements, only food. True, unless you want the biggest advantage that you can have. No doubt about it, many supplements are overpriced, underdosed and downright ineffective. What supplements such as vitamins and antioxidants will do is put the body in its ultimate anabolic state which in turn will lead to maximum muscle growth. They'll also guard against overtraining and illness by saturating the system with the necessary nutrients for repair and recovery.

Nothing here is written in stone. If a particular practice has worked for you, by all means continue it. But if you've been wondering why something should be working, and isn't – or if some ideas never quite clicked for you –it may be time to consider a new path. It isn't always easy letting go of a belief you've followed for some time, but when something isn't working for you, doesn't it make more sense to let it go and move on to something that does? Think about it.

7 BODYBUILDING DON'TS

We all do bad things. At times, it's due to an oversight or a lapse in judgment. On occasion, the misconduct is a gamble which didn't pay off. They almost never do. If you mess up, chances are you'll pay the penalty—sooner or later.

Training is no different. Sometimes the repercussion is immediate—a pulled muscle or a strained ligament. The damage can also be developed and compounded over time; the result of either misinformation or more often, ignorance.

Before you can avoid a mistake, you have to be able to recognize it. Experience is still the best educator but that in itself can hold back progress. Once you think you know all the answers, you stop the search. Along the way it's possible to pick up bad habits without realizing it.

If you've been at the weightlifting game for a while, you know what to do. But that's only part of the process. It's knowing what not to do that can often make all the difference on the road toward a better body.

The following are the most grievous "don'ts" you can make during your workout. Think of them as the seven deadly sins of bodybuilding! They are designed to help in creating the ideal physique in the least amount of time, while avoiding setbacks. Learn them. And avoid them at all cost.

1) Don't Get Distracted.

There are several variations of this. In some cases, it's a matter of lacking focus. It's easy to get caught up in a conversation with a fellow gym member or your training partner, yet these seemingly innocuous pleasantries can unwittingly sabotage a workout. Effective training requires concentration. Plus, when you work with a sense of urgency and purpose, you continue to move forward. Dawdle along the way and success always seems out of reach. When training for musculature that is refined and shapely, it's imperative to get a pump. A pump is impossible if the rest periods between sets are too long. Any routine that exceeds one hour is counterproductive. (I'd go as far as to say that working any one bodypart for more than 15 minutes is counterproductive). At that point, the muscles and nervous system are being taxed beyond which they can recover. You may be able to tolerate the strain, but it won't grow you any muscle. It's necessary to keep rest periods short in order to overload the muscle properly. Once that's done, there's no need to beat it to death.

2) Don't Forget To Stretch.

For most people, stretching is boring so I'd rather not get into a lot of details. At any rate, stretching does more than keep muscles supple and elastic, it may help potentiate future muscle growth by expanding existing muscle fibers. So stretch!

3) Don't Use High Reps for Abs.

It stands to reason – any exercise where you can perform hundreds of reps isn't working the muscles very strenuously. For optimum development, the abs need to be worked like any other bodypart – against resistance. The best "resistance" for the abs is to force them to stabilize. Don't fall for the myth that working the abs hard will cause them to overly enlarge. The rectus abdominals are a very shallow muscle group. It would be virtually impossible for them to increase as much as an inch in thickness. Thinking that the abs can get too big is as dumb as thinking that high reps will make the abs smaller. It just doesn't work that way. If you can't see your abs, the answer lies in your diet, not in endless repetitions of ineffective movements. Keep in mind also, the clarity of your abs is determined by anatomy. This fact becomes aptly evident by observing children who have very low bodyfat. Some kids will have tight little abs popping out while others will look smooth, even if they're skinny. So don't obsess if your abs don't look like a magazine model. Work the muscles and let the chips fall where they may.

4) Don't Do One Rep Maxes.

Attempting a one rep max is the best way to injure yourself. You may get away with it for a while, but sooner or later, ... SNAP!...you're out of commission for a long time. Many factors come into play when deriving intensity from a set and how much you can lift for a single rep is virtually inconsequential to muscular development. When you show up at the gym, check your ego at the door.

5) Don't Neglect or Overwork the Obliques.

Some bodybuilders allow the obliques to atrophy in order to keep the waist as small as possible. Yet, muscular obliques can add a finished look to the torso. But don't go overboard! Unlike the abdominals, the obliques are a thick muscle which develops

quickly. Multi-sets of side sit-ups on the hyperextension machine and sidebends with heavy dumbbells can cause the obliques to widen, thus destroying your symmetry. A set or two once a week is plenty for keeping the obliques tight.

6) Don't Be A Free Weight Snob.

Let's end this debate right now. Machines aren't better or worse than free weights. Unless, a machine's movement feels awkward (as is the case for me with the HammerStrength machines) there's no reason why they shouldn't be used. All that matters is the stress on the muscle. It isn't the machine that does the exercise – you do the exercise.

7) Don't Get Thirsty.

Once you're thirsty you're already in a state of dehydration, and dehydration is extremely catabolic! Remember also, muscle is 90% water. If you don't keep up your fluid intake, a pump is nearly impossible. Have some cool, fresh H₂O on hand at all times.

Any one of these mishaps can bring the best bodybuilder's progress to a screeching halt. By avoiding them, you can sidestep a multitude of pitfalls, plateaus and impediments. If you catch yourself slipping back into an old bad habit– stop– and tell yourself; "Don't do that!" It's better to not develop a bad habit than to try and break one – both inside and outside the gym.

"INSIDE-OUT" TRAINING

Taking a new look at some old exercises

There comes a time in everyone's life where it's apparent that things just aren't working. You may be applying yourself to the utmost of your ability but if the effort is ill directed, the desired results will most probably not be achieved. In other words, if you're running east to find a sunset, it doesn't matter how fast or how long you run, it ain't there.

That is why it's necessary to sometimes take a different approach – look at the problem from a new perspective. This is what makes bodybuilding more than just a physical activity. In an effort to "outwit" the constant adaptation process and find new methods of inducing growth, a little creativity is in order. This is where "inside-out training" comes into play.

What is inside-out training? The principle is simply to approach an exercise from the opposite perspective. Most bodybuilders have used an apparatus for something other than its original intent. A few examples may be using a cambered bar for rows or employing the tricep rope for curls. Yet most of the machines available in most gyms are approached in a more conventional manner. Using the "inside-out" principle we can mutate the action involved with most machines to incorporate several functions even their designers hadn't thought of! Let's start with the pec deck. As we all know, the pec deck was designed to be a more effective version of the dumbbell fly, but bodybuilders soon began using it as a rear deltoid developer. By facing the machine and placing the triceps on the pads, you would then contract the scapula forcing the posterior deltoid to work in a way that no other movement or free weight exercise can.

Let's stay with the pec deck for a moment and examine the inside-out approach. How else can the movement of this machine be utilized in a more unorthodox fashion?

STANDING PEC DECK CONTRACTIONS

Try this. Stand facing the machine. Grab the handles and contract them together keeping the arms straight. As the hands come together, lean back a bit to allow the pecs to do all the work. (If you lean towards the machine the delts and tris will help too much.) Once you find the proper "groove," you'll realize this movement works the inner pecs like nothing else!

ONE ARM PEC DECK FLYES

Another variation using the pec deck is to employ one arm at a time. Grab one handle in the conventional way. Support the other arm by holding on to the side of the seat. Now, contract the handle inward as usual but lean into the movement. This is something that obviously cannot be done if both arms were contracting simultaneously. Each arm will now be contracting far beyond the halfway mark, once again, forcing the inner portion of the pecs to work more intensely. This will give that awesome split in the middle of the chest that can be so elusive.

By now you're probably getting the idea of how this principle works. A little ingenuity and creativity can go a long way in developing interesting new variations. Look around the gym. Study the angles of the various machines. Sometimes sitting down in the opposite direction is all you need to do. By sitting down facing out on the lat pulldown, it becomes a whole new angle to straight arm pull downs, tricep extension and abdominal crunches. Here are a few more examples you may want to try.

TOE RAISES A LA' SMITH

Everyone knows the SMITH machine is a versatile apparatus. Squats with unusual foot placement that couldn't possibly be performed with the free standing squat can be executed with relative comfort on the Smith. However, the Smith machine makes a great standing calf raise machine! Place a block under the balls of your feet and put the foam pad on the bar for extra comfort. (The Manta Ray works especially well for this.) The movement, I feel, is far more "natural" than most calf machines.

ONE ARM ROW VARIATION

How about ONE ARM ROWS with the Smith? If the machine in your gym goes low enough, this movement is unlike any other variation of its kind. Very smooth and controlled! (Of course, stand parallel with the bar.)

LYING CABLE CURLS

The cable system at most gyms is often the source of some rather ingenious variations. Here's one you may not have seen. Use a straight bar on the lower rung of the cross-over cable frame. Instead of doing curls in a standing position, lie supine down on the floor with the feet supported against the frame. Executing curls while lying down eliminates any cheating and works especially well with the feel of the cable.

REVERSE HAMSTRING CURLS

Did you realize that the pad of a lat pulldown or an abdominal board can become a hamstring exerciser? We all think of working the hamstrings by curling the leg up. Why not support the legs and lift your body up? Kneel down with the back of your ankles securely under the pad support of your choice. Now lift the trunk of your body

backwards by contracting the hamstrings. Make no mistake about it, this is one hell of a difficult movement! Unless you can comfortably hamstring curl well over 100 pounds it's unlikely that you'll be able to do a single rep in this manner!

Once you get in the mind set of viewing things in this manner, you'll be surprised how many alternatives are possible. I've used leg extension machines for sissy squats, a hamstring machine can be a makeshift seated calf raise machine, even the pads of standing calf machines can be used for doing shoulder shrugs! The variations are limitless.

By breaking some rules you may find your way towards more interesting and productive training progress. So the next time you want to get through a sticking point by trying something different, think inside-out!

THE HIGH INTENSITY MISTAKE

There's an ongoing debate among bodybuilders as to which type of training protocol is superior. Most people believe that a significant quantity of training volume is necessary in order to stimulate muscle growth. Since this practice has proven itself thousands of times over, one would think its credence was indisputable. Nevertheless, there are others, equally qualified, who feel that it is momentary intensity alone which determines muscle growth. Only when a muscle is pushed beyond the stress in which it has never received will the impetus for more growth occur. But where and when does that occur? As a matter of fact, the term "high intensity" is perhaps the most misunderstood concept in bodybuilding.

Some proponents of high intensity training, also known as H.I.T. and Heavy Duty, go under the assumption that intense means going to failure with heavy weights. Unless total failure is reached, with the utmost poundages, true failure is never obtained and maximum development is stunted. What I never understood was, why must failure occur at 6-8 reps? Why is it that if a muscle is pumped, suddenly the inference is that there isn't enough resistance to grow muscle?

The standard axiom is that any activity which can be performed for more than 10 reps incorporates the slower twitch (red) muscle fibers whereas it's the bigger fast twitch muscles which are responsible for the most mass. I believed that myself. But I'm starting to wonder.

Many champions have developed outstanding physiques training for the pump. That doesn't mean their workouts were "easy." It's just a different kind of intensity. One of the arguments for short bursts over longer periods of activity is the comparison of sprinters to long distance runners. Sprinters tend to have legs that would make most bodybuilders envious. Long distance runners, on the other hand, have thin, stringy muscles. That pretty much proves the notion that brief bouts of exertion build muscle better than voluminous training sessions, doesn't it?

No. And this is why.

For one thing, there's the genetic factor. People with muscular legs are better suited for sprinting. Skinny folks are more geared for marathons.

Be that as it may, let's give the "effects of function" concept a fair shot.

Even though a sprinter's "set" (e.g. running 100 yards) lasts only about 30 seconds...how many "reps" is he doing? In other words, how many steps does it take to travel that distance? 80? 90? Over 100? It sure ain't 6-8! This proves a vital and incredibly overlooked point. It isn't so much the amount of reps or the level of resistance – but the intensity itself as well as the time under tension which determines muscle growth. The sprinter also doesn't practice one sprint a week. He does dozens a day.

Intensity comes in many forms. Naturally, there's the length of each session and the poundages used. There's also the rest, or lack thereof, between sets. The speed of each rep, especially the eccentric portion, is a factor as is the force of contraction. The use of partial or static reps comes into play as well. Even the combination of movements will have an effect. There is so much more to stimulating muscle fiber than merely lifting X amount of weight for X amount of reps. That's why I've never been all that interested in keeping a training log. All that does is tell you how much you lifted and for how many reps. It doesn't tell you how intense each set was. And that's the biggest factor when it comes to muscle growth. Please realize, I'm not referring to strength gains or weight gains. Just muscle growth.

There was a technique which was a staple among the old time bodybuilders which has fallen out of favor. They used to say; "make a lighter weight feel as heavy as possible." What that meant was, get inside each rep and force the muscle to strain! It may not look as impressive but that's what induces growth. Your muscles don't give a shit what your training journal says. Numbers mean nothing to them. All they know is stress.

The very notion of "training to failure" is fraught with ambiguity. What constitutes failure? The inability to complete a rep? If so, what about 10 seconds following the set? More reps would then be possible. The only undeniable gauge of total failure would be working to the point where the muscle is torn from the tendon insuring no potential for any further reps! The theory of total failure being the only effective stimulus for muscle growth is as idiotic as claiming aerobic capability can only be increased if you reach the state of near cardiac arrest. The truth is, there is no such thing as "failure." There's only that point within a given range where your brain and nerve endings say "enough!" Yes, it's imperative to get as far into the pain zone as possible in order to grow. But you don't have to live there every day – every workout – every set.

This might be a good time to address the Heavy Duty Demigod, Mike Mentzer. I have a problem with Mike. Maybe it's because I, too, was influenced by his mentor Ayn Rand. Yet, I believe, in true "Randian" fashion, that the development of thought is an ongoing and individual pursuit, not the blind adherence of some ideology. That's where Ayn Rand herself was off base. In her novels, she made sure every situation worked out in favor of proving her point. But that's not life. Mike Mentzer makes the same mistake. He may be intelligent and articulate but his arguments are merely an attempt to elevate his own status and subjugate those who oppose him. Influence through intimidation. Sorry Mikey, but I ain't buying it.

Heavy Duty training isn't the only way. It's one way – as viable and as inexact as all the others. I don't deny its place in every bodybuilder's battle plan. However, its exclusive use will not yield optimum results. Not to mention the potential for injury is

higher than any other method. Sure, there will be those who insist that it works on a consistent basis. (Which is ridiculous. No method yields constant growth. Anabolism isn't a linear process. If that were the case, people who have been training for 10 years would have 60 inch chests and 30 inch arms!) There will also be those who will claim they've never been injured using maximum poundages. Great! But everyone is different. Belief to the contrary is the epitome of illogic.

It should be noted also that Heavy Duty's biggest endorser, Dorian Yates, does not train "one set to failure." He trains one exercise to failure, using up to five exercises per bodypart – very different from the Heavy Duty principles. He also uses a warm-up movement for each new exercise. Let's see...five exercises, each with a warm up...sounds like ten sets to me!

"Periodization" is the term most people use when describing a method of training that varies its principles. It's nothing new. This is what legendary training coach Vince Gironda referred to as "muscle confusion." Going with the premise that the body will attempt to adapt to any form of stress, it's important to "mix up" the ways in which your muscle perceives stimuli. This keeps the system off guard and consequently, instigates more muscle growth. It also keeps at bay the biggest detriment to training progress: boredom. By attempting to do what the body isn't expecting, it forces the creative aspect of one's personality to come into play. This keeps things fresh. Performing the same workout week after week may work for some people. Personally, it would bore me out of mind in no time. It's best to change routines often. Better yet, don't do a "routine" at all. As long as you make an honest effort, you'll continue to improve.

When it comes to training, two constants apply. One: Everything works to a degree. Two: Everything stops working after a while. The key is acquiring an extensive training vocabulary in which to draw upon.

Intensity is an elusive topic – vague and indefinable. Yet one thing is certain. You know deep down when you have it. It isn't determined by a fancy title or the decree of some exercise authority. It's inside. You can't fake it. Your muscles won't let you. That's what's so amazing about bodybuilding. It's you – against yourself. You do the work. You reap the reward. Just remember, there's a difference between passion and hostility. Don't try to beat your body into submission. Approach each set, each rep with concentration and dedication and the intensity will take care of itself. Training doesn't need to be a constant "all out" effort, nor does it need to take hours. Just make sure you get the job done.

THE TRUTH ABOUT AEROBICS

Anyone familiar with my work knows that my stance on aerobic training has spurred some argument throughout the years. Although the topic remains one of contention, more and more of the less close minded authorities are catching on. It is my honest belief that by the year 2012 aerobics will be considered as antiquated and inane as those vibrating belts which used to be a staple in gyms and health clubs. The following text aptly describes the reason behind my thinking.

DON'T DO AEROBICS!

Weights build muscle. Aerobics burn fat. Right? Not necessarily. The standard thinking is aerobics are a necessary component for fat loss and cardiovascular health, but in my opinion, they're essentially just an ineffective form of exercise.

Aerobics will do next to nothing to alter one's appearance, yet people will include them because they're considered essential for providing a complete and balanced exercise program. That makes about as much sense as adding Styrofoam bricks while building a house because they provide a "different" form of support. They're only weaker.

No one wants to admit that they've wasted hours of time on something that has reaped no reward. It isn't unlike the gambler who continues to lose and lose because he's already invested so much money on trying to win. Sure, it's senseless. But humans also react out of emotion. Most serious exercise enthusiasts include aerobics in their program but no one knows why – other than what they've heard. Now you'll hear something different.

MOVE MORE. LOOK THE SAME

The first premise regarding the necessity of aerobic training that I'd like to take on is the "targeted heart rate" theory. The belief is that once the heart rate is elevated to 60% of its maximum potential for over 20 minutes, the body begins to burn fat. Makes sense. I guess. You'll sure be burning a whole lot of calories. But if this method is so effective, why is it that I see so many aerobic instructors who are obviously in great cardiovascular condition with big fat asses!?

The reason is simple. Once the body becomes accustomed to the demand that is being put on it, there is no reason to adapt. It's capable of performing the activity effectively. The only alternative would be to increase either the intensity or the duration, both of which are selfdefeating. It's imperative to remember at all times that the body's number one function is survival. Your body doesn't give a damn about how you want it to look. It is a primitive and highly efficient organism that will use a multitude of resources to adapt to an almost limitless array of bombardment. Keeping that in mind, follow me on this next point.

A gram of fat consists of 9 energy units (calories). A gram of protein is 4 calories as is a gram of carbohydrate. Your body doesn't care if the fat is coming from your oblique or a stick of butter, it will use what is most readily available.

When performing an activity that requires constant low level movement for over 20 minutes, what you are essentially doing is giving your body a command:

Must run...

Must keep moving...

The master demands I travel great distances...

Now, knowing the body is going to respond as efficiently as possible, it will then begin to drop weight, allowing it to perform the task at hand with greater ease. This is where the belief that aerobics are effective gets misconstrued.

If the body is going to take the path of least resistance (which is the only way it knows), will it use 9 energy units (fat calories) to drop a gram of weight or will it use 4 energy units (protein or carbohydrate calories) to drop a gram of weight? Of course, it will use only four! Would you pay nine dollars for something when you can get it for four? The first source of fuel is to use the stored carbohydrates. As long as carbs are present, there is little need to use fat. This is why it's preposterous to eat carbs in order to have the energy to run. It's like working at a job that pays just enough to pay the expenses of getting to and from work.

What happens once carbs are depleted? Now we enter the fat burning zone, don't we? Not so fast Sparky. It still has another 4 calorie per gram energy available – protein. What's so bad about that? Well, just as the body doesn't discern where the fat comes from, it also doesn't know a protein molecule in a piece of steak from a protein molecule in a piece of human muscle tissue. The muscle on your body is a readily available source of energy just waiting to be used. So whenever you do aerobic activity, you're burning muscle – like it or not.

"I'LL GET HEALTHY EVEN IF IT KILLS ME!"

Aerobics are an extremely damaging form of exercise, yet for some strange reason, the ability to withstand pain has become associated with athleticism. The epitome of withstanding punishment by way of aerobic overload is the marathon. The story behind the Marathon Run is based on an ancient Greek legend of the soldier, Pheldippides, who ran 26 miles to tell the emperor that their army was victorious in battle over the Persians. Then he dropped dead. (Let that be a lesson to you.)

What's interesting to note is, after a runner completes a marathon, the average weight loss is only four pounds. About three of those pounds are water which return the next day after the individual rehydrates. That leaves only one pound of actual weight loss. It's a fair bet that a good portion of that pound is muscle loss. That means the amount of fat utilized from running a marathon is only a few ounces. So, if it takes running consistently for 26 miles to burn a few ounces of fat, how much fat do you think you'll burn from running for 20 minutes? About as much as a couple of spoonfuls of oatmeal. You'd be better off not eating the extra oatmeal.

As much as I may admire the physical and mental toughness it takes to finish a marathon, it has little to do with one's health or appearance. It certainly won't enhance it. Proving how much punishment one can endure is so typical of the "weekend warrior" mentality. It may make for inspiring Gatorade ads, but the ability to tolerate damage is not a very accurate gauge of one's health or strength. If it were, then my friend Louie is a regular gold medal winner. He can sock away 12 beers and

a pack of cigarettes in one sitting, sleep for 3 hours, eat a plate of french fries and do it again. That would kill me! I wouldn't say he was in better shape than I because of it; he's just able to tolerate this form of abuse better due to the fact he's built up a tolerance to it.

An activity such as running, besides being unnaturally stressing to the knees, ankles, and lower back, will also increase free radical damage due to the higher ingestion of oxygen. (Oxygen intake equals oxygenation) Let's not forget increased uptake of pollutants. If you're going to run, do it in a wooded area where the air is clean. I never fail to get a kick out of the people I see on the city streets, huffing and puffing, running in place as they wait for the light to change. Breathe deeply folks. Yep, take in that invigorating carbon monoxide. Oh look! A diesel engine truck is heading up the block! Don't want to miss the opportunity to suck in some of that.

THOSE ARE VERY NICE BREASTS YOU HAVE THERE SIR.

As most bodybuilders know, testosterone is a major factor in the success of everyone's training progress. Studies done on long distance runners have shown a severe depletion in testosterone levels. It stands to reason. Any long-term stressful condition will cause a severe drop in testosterone. Long duration stress is also extremely catabolic in that it overly taxes the endocrine system. This could lead to a slower metabolism – just the thing you're looking for if a tighter body is your objective.

It's so ironic. People do these things in the name of health. How sad it is that running will not do what everyone is expecting it to do. It is NOT healthy. It will NOT increase your lifespan. It will NOT improve flexibility. It will NOT grow muscle. It will NOT strengthen your heart any more than weight training or even moderate exercise such as walking. It will NOT improve your appearance.

And most of all, it will NOT help you lose fat. You know what helps you lose fat? Eating less food. Try it and see.

Muscle is the key. Muscle is what keeps fat in check and aerobics won't help you build muscle. Aerobics are good for one thing and one thing only: They make you better at doing aerobics.

NOT CONVINCED? HERE'S MORE.

A while back, I was speaking at a seminar on training and sports conditioning. A student stated he made his best gains through weight training but was concerned about his cardiovascular ability when he tried to swim for the first time in years. He said he became quickly winded after only one lap. He then remained on a program of swimming every day and within a month he was able to swim ten laps.

"Mister Montana, with all due respect, doesn't that prove that aerobics improve cardio capability?" he asked.

The answer was no. And here's why.

I explained; How long did it take to complete that lap? A minute? Less? That doesn't fit the definition of "aerobic." What you did was push yourself to your cardiovascular limit in a short amount of time, which is considered an-aerobic. So why would engaging in an activity that only elevates heart rate for 20 minutes improve the ability

to do something that requires maximum exertion for one minute? The reason the lap took so much effort was because the exertion was unfamiliar. Therefore, you didn't get better at swimming because your aerobic ability improved from swimming every day for a month. You simply became a better swimmer!"

The same goes for any activity. Even though yoga wouldn't be considered an aerobic activity, it can make you breathe harder if the strain is new to you. This is why alternating training stimulus is optimum for total conditioning.

THE HEART OF THE MATTER

All exercise works the heart. And in case you haven't heard, weight training is exercise. Which brings me to my next point. When I was studying to get my certification to be a personal trainer, there was a point where the instructor told the class that weight training will not improve one's cardiovascular condition, to which I just had to say, "excuse me?" "Um, professor. Are you suggesting that if you were to take a previously untrained individual and put him on a weight training regime for six months, that at the end of that time he would show no improvement in cardiovascular ability than from the day he started?" The instructor looked me square in the eye and said... "Yes."

I guess he's never done 20 rep sets of squats. I'll bet my entire bank account (granted, not a very impressive wager) that high rep weight training will improve cardiac output as well, if not better than low intensity aerobics. Any takers? The thing is this: The heart is a muscle and although cardiac muscle tissue is different from skeletal muscle tissue, there are similarities. All muscle becomes stronger through use. There is no evidence that the usage from an extended moderate activity increase is superior to the anaerobic version that weight training provides. Even the terms anaerobic and aerobic are misleading. They're essentially "made up" terminology which exercise practitioners have used and repeated throughout the years. Anaerobic means "without oxygen." Well, all exercise requires oxygen. Come to think of it, last I heard, everything outside of death requires oxygen.

Along the same lines one must realize, any activity will burn calories and induce weight loss, especially if the trainee is new to an exercise program. But even in the case of previously untrained subjects, aerobics are the least effective of all forms of exercise for fat loss. When it comes to calling on its energy resources, the body doesn't know if it's lifting a barbell or running on a treadmill. It's expending effort, burning calories and stressing the nervous system with both activities. Of course, cardio training is of a lower intensity and longer duration. That's exactly what makes it less effective. If low intensity, long duration burns fat (which it does) then all activity, short of being in a coma, will burn fat – which it does – just not enough to make a difference. Of course, keeping the rest period in between sets brief is the best fat burning tactic there is, yet people ignore it to ride a bike that doesn't go anywhere. Go figure.

A LOT OF HOT AIR

The increased oxygen intake for fat loss is based on elevating the heart rate and here's where the theory falls apart. If you aren't in shape and you run a mile, your heart rate may go up to 200 BPM (Beats Per Minute).

If you're in good condition, it may stay at about 100 BPM. So if an elevated heart rate and increased oxygen uptake is what burns fat, then only unconditioned people would burn fat from most aerobic activity. Conditioned athletes would require more intense activity to get into the fat burning zone. Instead of running farther, it would make more sense to run faster, which is just another way of increasing the "resistance." Running sprints is excellent exercise for both cardiovascular development and leg strength. Of course, then you'd no longer be performing what is regarded as aerobic exercise.

SEMI - RETIRED

I love it when people say they do aerobics on "off days." Then it isn't a day off dammit! Proponents of brief infrequent training sessions say they get fat unless they include some aerobic activity. Well, why not just work out more? There's only so much energy the body can expend before it becomes overtrained. Why waste it? It's crucial to make the most of that window of opportunity by implementing the most effective form of exercise. And aerobics are at the bottom of the list. I also find it funny how some strength coaches think that training for a pump by using higher reps with a lighter weight is worthless, yet believe aerobic activity, which offers less resistance, has merit. (?)

I've heard people swear they look leaner after a cardio session. Sure. It's called sweating. When you perspire, you remove the subcutaneous fluid which looks like fat. You see your muscles more clearly. If that's what you're looking for, dress warmly when you workout. Or wear a sweat belt. You'll get the same results. Most people, other than the severely sedentary, get plenty of activity that will increase their heart rate for twenty minutes. Walking, dancing, playing sports, or riding a bike (a real one) are excellent methods to elevate heart rate. Even sex is a great way to increase heart rate. Sure beats the treadmill.

IT'S IN THE CARDS

When it comes to exercise, doing more won't assure more health or a longer life. Look at Jim Fixx. He wrote the famous book on running back in the 70's when it first started gaining popularity with the public. (By the way, how exactly do you go about writing a book on running? How many times can you say; left foot, right foot, left foot, right foot...?) Jim Fixx died at age 36. When I mention this to running addicts they invariably say; "Jim Fixx had a congenital heart problem!" That's my point. Running didn't correct or even alleviate the problem. No disrespect intended, but all that running may have very well aggravated it.

MORE MUSCLE = LESS FAT

Using aerobics as a method of burning fat is only fanning the fire. Muscle requires energy to sustain. Fat does not. Therefore, the best way to keep bodyfat in check is by having more muscle. And how do we do that? Lifting weights of course! Are you getting all of this?

STATUS QUO WOES

As we now know, the human organism doesn't like having to change. It will adapt and adjust in an effort to maintain homeostasis. That's why it's so difficult to grow muscle or lose fat. The body likes things just the way they are and it requires the torturous

stress of lifting ever increasing poundage before it will concede and grow more muscle. The same goes for losing fat. Accepting the fact that the body doesn't want to alter its total bodyweight, does it not make more sense to make as much of that weight muscle?

Let's say your set point is 200 pounds – that's where your body is comfortable. It could just as well be 200 pounds with 6% bodyfat as 16% bodyfat. The mistake many people make is to attempt to lose weight in the hopes that they will lose fat. If you force your body to lose weight, the first thing it's going to give up is muscle since muscle weighs more than fat. Once again, since protein is 4 calories per gram and fat is 9, it requires more to sustain a gram of muscle than it does a gram of fat. When you deplete the energy intake (calories), you are telling your body to lose muscle. No wonder so many people throw in the towel and lament, "It's impossible!"

It isn't impossible. There is a positive flip side to this phenomenon. If you have enough muscle, you can eat more and still remain the same bodyweight. More calories will provide more energy and once again, since the body wants to maintain homeostasis, it will burn those extra calories, if your muscle to fat ratio is high. This re-confirms the fact that the emphasis must be on building muscle and not on trying to burn fat by punishing the body in an attempt to use up calories.

A NOTE TO THE DIEHARDS

Even if you've accepted the premise I've presented, you may still want to engage in some aerobic activity now and then. I certainly have no problem with that. If I feel like getting into a good game of handball, I'm not going to worry, "Oh my god, I may lose some muscle!" Go on, break a good sweat. Show that you can use that beautiful body for things other than lifting weights. It feels good! Some cardio-based exercise can offer, if nothing else, a change of pace. I've even been know to test myself every now and then by running a 10 minute mile or two. Granted, Carl Lewis has nothing to worry about, but it shows I'm not suffering any serious defect in aerobic ability due to just weight training as the only source of exercise for my heart.

THE GIFT THAT DOESN'T KEEP ON GIVING

If you enjoy running then go for it. Just keep in mind, aerobics increase metabolism only while you're doing them. They won't utilize fat for fuel when you're at rest. Only having more muscle will do that. Resistance training also improves glucose disposal and insulin sensitivity. Aerobic activity doesn't do either very effectively.

AM or PM?

There's also some controversy as to when aerobic activity should be executed. The precept currently in vogue is to do aerobics in the morning on an empty stomach, the theory being that you will more quickly use up stored carbohydrates and burn fat faster. I don't agree with this line of thinking. Without available carbs, the body is more vulnerable to catabolism. If you insist on running, the preferable time would be at the end of a workout. In this way, the heart rate is already elevated and less activity will be required to achieve the desired effect.

THROWING DOWN THE GAUNTLET

If you are currently on a training program that includes aerobics, I'd like to offer a challenge. Try this test for one month: Train exactly as you do now but eliminate all aerobic activity from your exercise regime. Since you will be expending less energy, you may want to up the poundage of the weights you're lifting or at least add a couple of extra reps to each set. Continue to eat as you are now, making sure to maintain a high intake of protein. At the end of one month, I guarantee you that none of your aerobic ability will be lost. You will also have more energy, fuller shapelier looking muscles, and the exact same body fat percentage that you have now. Trust me.

AND NOW A WORD FROM OUR SPONSOR

And if all of this isn't evidence enough, I'll let Doctor Kenneth Cooper have the last word. He wrote the book "The New Aerobics" and is credited with coining the very term "aerobics." Twenty five years after the debut of his book, Dr. Cooper admitted that many of his conclusions were incorrect. He was quoted as saying: "Further research has shown that there is no correlation between aerobic performance and health, protection against heart disease, and longevity."

Newsweek Magazine ran a piece on Exercise Guild president Ken Hutchins who refers to an article that appeared in Mens Journal Magazine where Dr. Cooper goes on to say that aerobics are far more carcinogenic than first realized and are to blame for many injuries.

There you have it. Do you still want to do cardio? Be my guest. While you're at it, put 20 bucks on the number 7 horse in the fourth race at the OTB. You've got as much chance at getting rich as you do of improving your fitness goals through aerobic activity. Aerobics are a terribly ineffective form of exercise. The sooner that's realized, the sooner you'll be on your way toward better progress. I know it's tough to accept. But changing a bad habit is a lot smarter than defending it.

THE "NO-AEROBICS" AEROBIC WORKOUT

An elevated heart rate can be obtained by using a variation of standard weight training procedures. The advantage of employing said methods is threefold.

1) You will enter the "fat burning zone" much more quickly. This is accomplished by keeping rest in between sets to a minimum. While engaging in this type of training, all rest periods must be kept to one minute or less.

2) You avoid the muscle breakdown so often associated with typical aerobic exercise. By avoiding prolonged periods of "low intensity," the body uses only the available carbohydrates. This spares the muscle tissue that begins to be used as fuel once carbohydrates are depleted.

3) You place the body in a state that allows for more muscle growth. Through the utilization of weight resistance, however light, there is an increase in mitochondria which allows for more potential muscle growth. Lighter, higher duration sets also increase capillary production providing a greater "pump" therefore allowing more blood and nutrients to enter the muscle. This, too, is a factor in promoting growth.

Add to the mix a greater increase in growth hormone release due to the applied intensity, and what you wind up with is a powerful combination for burning fat! Intensity takes on many forms. It isn't just using "the most weight" or "going to

failure." If you doubt the intensity required to perform this workout, then give it a try – just once. Chances are, you'll be huffing and puffing so hard you won't have enough breath left to argue!

The simplest approach to utilizing a no-aerobic aerobic workout is to start with the basis of the training you are now using. Let's say you train back and biceps together. This would work well due to the fact that the biceps will be warmed up and ready to go after working the back. There would be no need to lessen the momentum warming up a new body part, therefore, fat burning "intensity" is maintained. You may think that a quicker paced, almost circuit training styled routine would require higher reps, but that isn't so. The elevated heart rate achieved comes from keeping the breaks short! You can continue to train in a rep range as low as 6 to 8 reps if you like. In this manner, the muscle is more involved in the activity.

Going to failure is not required or recommended with this type of training. That doesn't mean the reps should be too easy. Work hard. You just want to stop one or two (unassisted) reps short of failure. I don't like to state specific routines or even exercises in any program. It's more about the overall application of the exercises. Do as many sets as you can within a 20 minute time limit per body part.

ONE AT A TIME PLEASE

When weight training "aerobically," it is necessary to use as many unilateral movements as you can think of. By working one limb at a time, such as the biceps, you can fatigue the left bicep muscle and then go directly to working the yet unstressed right bicep. Of course, your aerobic capacity will be forced to work harder since all that your lungs and heart know is that an increased demand has been placed on them. But that's the idea.

LITTLE MUSCLES - BIG CHALLENGES

While I feel it's best to work muscle groups in tandem, (Back & Bi's; Chest & Tris; Quads & Hams, etc.), it isn't as imperative when working "aerobically." In fact, this just may be the perfect opportunity to prioritize on two very separate muscle groups. A good example would be delts and calves. While working a calve, there is no strain whatsoever on the delts, therefore you can forgo any rest between the sets.

Here's an example...

Standing Calve Raises –

1 set x 25 reps - No Rest - going directly to...

Dumbbell Lateral raises –

1 set x 15 reps - No Rest -go to...

Seated Calve Raise –

1 set x 25 reps - No Rest - go to...

Barbell Presses behind the neck –

1 set x 10 reps -No Rest - going back to...

Standing Calve Raises –

1 set x 25 reps - No Rest - go to...

Seated Dumbbell Presses –

1 set x 10 reps - No Rest - going to...

Well, you get the picture.

The pattern is obvious. The name of the game is...KEEP IT MOVIN'!!! The rep range is optional. It's all contingent on the weight you choose. Keep in mind, any weight that can be taken to more than twenty five reps is most probably too light.

SUPERSETS REVISITED

Since we are now training "aerobically," supersetting becomes a viable and even a preferable option. Once again, the objective is to work the muscles and elevate body temperature (which burns fat) by executing the pace as quickly as possible.

When employing supersets, the blood is now concentrated in one area (e.g., bi's and tri's). Taking "no rest" may not be practical because of the increased lactic acid build up in the area. A good rule of thumb when supersetting with this method is to keep rest to 30-40 seconds. That half a minute starts to go by pretty quickly by the time it gets around the fifth or sixth set.

An alternative approach while supersetting is to alter not only the body parts but the hemispheres. Using the bicep-tricep combination, you can work the left bicep followed by the right tricep. Then return to the left tri followed by the right bi and so on.

As you can see, there are a multitude of variables. You can "shoot from the hip" while you're in the gym but if you're more comfortable with a "structured" workout, you can write down the days battle plan beforehand. Just don't get so hung up on finding that "perfect" combination of sets, reps, and exercises. (That advice can carry over into many aspects of training.) The one constant in aerobic weight training is to avoid allowing the heart rate to drop to a "resting" level. If your HR is under 120 beats per minute at any time, you're either moving too slowly or the poundages are too light.

Try this program for a week or two and you will see for yourself what a terrific alternative it is to traditional aerobic training. Do not engage in any other aerobic work when implementing this routine! Not even on "off days." (An off day should be a day off.) This is all the aerobic work you will need. Not only will you be increasing your cardiovascular ability, but you will more efficiently burn fat and probably feel a pump like you haven't experienced in some time.

And by the time you're ready to hit it heavy again, there's a good chance your numbers will be even higher! That's right. By putting emphasis on the slow twitch muscles thus allowing the larger muscle groups more recuperation time, they should be fresh and ready to go. The only difference is, your tendons will have been strengthened by all that high rep work.

Less fat. More potential muscle growth. Increased strength. And NO AEROBICS! What more can anyone ask for?

THE TRUTH ABOUT NUTRITION

SPELLING IT OUT

Here are two simple guidelines that may help put a proper eating procedure in order. After a while, eating right will seem like the most natural thing in the world.

One: Eat Protein At Every Meal.

I can't make it any simpler than this. As a bodybuilder, you **MUST** make protein your main priority. That doesn't mean you need to eat skinless chicken breasts three times a day. It just means that a bowl of pasta isn't a meal. Eating crap just because you're hungry is worse than not eating at all.

And two...

Follow The Old Rule of Protein Grams.

Way back when, someone wrote that a good guideline of protein consumption was one gram per pound of bodyweight. At first it was accepted, then repeated, and before long, everyone assumed it was an indisputable fact. Then came the scientists. They discussed it. Disagreed with it. And eventually discredited it – for no other reason other than they weren't satisfied with the "nonscientific" reasoning. Well, as it turns out, the one gram of protein per pound of bodyweight isn't a bad rule after all. Of course, it's an estimate. But if you shoot for it, and get close, you'll be in the right range.

One gram per pound may seem simple enough but to those who've been following a "normal" diet will attest, that's a LOT of protein. But by making this a priority it automatically keeps the fat and carbs in check.

Some skeptics argue that 200 grams of protein for a 200 pound bodybuilder isn't enough and that if you want maximum gains you must eat massive amounts of protein. That's just dumb. The body can only utilize so much protein at a time – which led some of the old timers to believe more than 25 grams each meal was excessive and that the excess will be turned to waste. Again, this is just conjecture, but it's in the ballpark. You need to "shower" your muscles with protein, but once a cup is full, it's full. Pouring more into it will do no good.

For those who need a detailed plan, here's an example of a "bodybuilders" diet.

Portions are determined by one's goals.

Breakfast:

Eggs, Bacon, Sausage or Ham, High Fiber Cereal, Coffee

Afternoon snack:

MRP or homemade protein shake Lunch: Turkey or Roast Beef Sandwich

Afternoon Snack:

Nuts or hard boiled egg or a piece of cheese or some fruit

Dinner:

Fish or Beef with large salad

Late night snack:

Protein bar with glass of milk

This diet isn't mystical or magical. It doesn't have a trendy name or macho title. It's just eating. It's only one example of a sensible diet for anyone looking to make the most of their bodybuilding goals. There are millions of variations. This is meant as nothing more than a starting point toward getting on track toward proper eating. Of course, I could say stuff like, substitute meal one with nothing but meat and on the following day, every other week, eat brussel sprouts every third hour and blah, blah, blah blah blah. I hate that shit.

A popular question among many novice bodybuilders concerns gaining bulk. They want more size and they want it yesterday. I can't tell you how many people have told me they can't gain weight no matter what they do. They've tried every diet and every supplement and nothing works. Well, I have the answer. It's foolproof and guaranteed. Everyone who has followed this advice has gotten bigger. But you must follow the instructions implicitly! No variations or deviations of any kind!

Do this, and you will definitely grow. Eat more.

Right about now, you may be saying; "what are you, some kind of wise ass?" Well, yeah, I am, but one thing has nothing to do with the other. No matter what anyone tells you, you must increase calories in order to get bigger. You CAN NOT gain size without doing so.

PERIOD!

Now for those of you who need further edification, this is not a justification to eat gobs of junk food. The simple key is to follow the guidelines of a healthy diet and simply crank up the quantity.

I apologize for the lack of convolution. Maybe you wanted a detailed diet plan that has you eating strange foods at weird intervals along with the latest poly-nucleac razzmatazz super supplement which will insure MUSCLE GROWTH BEYOND YOUR WILDEST DREAMS!!!!

Just pretend. The end result will be the same. So how long will it take to get bigger? As long as it will take not to get bigger. Don't worry so much about "when" as "how." Do what it takes and stop waiting for easy answers.

EAT ALL YOU WANT – AND STILL LOSE FAT!

Diet plans come and diet plans go, yet one thing remains the same. Taste and hunger are powerful forces. They're a desire and they're a need. Attempting to reject that need in an effort to lose fat can only lead to failure and disappointment. Although

just about everyone would like to shed some extra flab, at times it seems to be a near impossibility and that lean muscular look continues to elude.

Isn't it funny how once hunger pangs have been quelled, that's the time we realize the need to eat right? That's why you hear so many people say they're going to start their diets tomorrow, or next week, or after the New Year. The intention may be sincere but the days are long and when hunger sets in, there's only so much willpower one can muster before the cravings become too great.

Instead of using denial as a method for staying on track, a more effective and realistic tactic would be to adopt an eating plan that allows you to eat good tasting food and still stay within your bodybuilding goals. This is the premise behind many of the low carb diets. The idea of eating steaks and cheeseburgers and rack of lamb is very appealing, yet it becomes quickly apparent that without carbohydrates, the food choices are very limiting which is exactly the reason why many people lose weight on low carb diets. With less food to choose from, the less you tend to eat – which leads to eating less overall calories. The problem with this game plan is what causes the downfall. Sooner or later, you just have to eat a piece of bread or a bowl of pasta! And when you do that, the diet is blown.

A more practical approach is to stick to a variety of foods that are filling and offer a high ratio of nutrients with the emphasis on protein. In this way, you can apply and adhere to a more "normal" eating lifestyle. As long as you don't binge or eat total junk food (sweets and snacks with empty calories), it's possible to eat what you enjoy and as much as you need.

The following is a list of 20 foods which fit the bill perfectly. They're nutrient dense and each choice is meant to serve the purpose of either providing maximum energy or muscle building protein. They also taste good. And let's face it, that counts!

1) Salmon

Besides being an excellent source of protein, salmon is abundantly rich in heart healthy omega-3 oils. Omega-3's have been shown to lower LDL levels (the "bad" cholesterol), improve the immune system and help the body utilize body fat for fuel. Salmon is also high in Vitamin B12, which helps in the metabolism of carbohydrates.

2) Oatmeal

The bran found in oatmeal helps eliminate toxins from the digestive tract and assists in the removal of fat before it's digested by clinging to the fat particles and pushing them through the intestines unabsorbed. Oatmeal can be eaten alone or added to a wide variety of foods. Homemade oatmeal cookies with added protein makes a wholesome high protein treat.

3) Eggs

If it were possible to concoct the perfect food, it wouldn't be much different from the good old egg. Eggs are pure high quality protein but their advantages don't stop there. The yolks, which many a health conscious individual discards, contain mono and polyunsaturated fat (the "good" fat) as well as a hefty dose of lecithin which helps to emulsify body fat. Eggs also contain vital lipotropics such as DHA as well as lutein and carotenoids. Many experts believe eggs are also anabolic due to the cholesterol content. (All cell growth requires cholesterol). And one egg contains only 75 calories. They're also extremely economical, making them a "must have" for anyone interested in growing muscle and losing fat.

4) Broccoli

It may not be on everyone's list of favorites, but broccoli is one mighty nutritious food. High in vitamins C, E and A, it's also rich in sulforaphane which has been shown to inhibit cancer growth. Try cooking it in olive oil and garlic and you may change your mind about the taste of broccoli.

5) Soups

Many soups contain beans and vegetables making it a filling and nutritious adjunct to a meal or as a "light" meal all on its own. Just watch out for canned soups which tend to have an excess of 1000mgs of sodium per serving!

6) Salads

Sufficient roughage is a must for proper digestion when on a reduced calorie diet. A common mistake among dieters is to eat salad without an accompanied side dish. Lettuce is mostly water and digested quickly, leaving you with hunger pangs shortly afterward. Salads are best with a meal because they "take up room" in the stomach and prevent overeating.

7) Chicken

This is a no-brainer. At over ninety percent protein, chicken is the staple of anyone looking to build muscle while keeping fat intake low. Chicken can be prepared in countless ways, making it the most versatile of all protein foods.

8) Whole Grain Cereals

Normally, cereal products are an inferior food – highly processed and laden with sugar. But whole grain products such as Shredded Wheat and bran flakes head the list of cereals worthy of consideration. It's perfect for a quick, low calorie breakfast.

9) Strawberries

This summer delight is a delicious way to ward off free radical damage due to the abundance of antioxidants. Equally relevant, strawberries are high in quercetin which promotes healing and reduces the chance of infection. They also contain another plant chemical, anthocyanin, which prevents against heart disease.

10) Wheat Germ

Did you know that wheat germ can be used instead of high fat nuts as a garnish and works perfectly as a substitute in recipes that require bread crumbs? Now you do.

11) Beef

That's right – considered by many to be the bane of most fat-loss programs, beef can be invaluable in helping to take off weight. The slogan "beef satisfies" is more than a clever advertising angle. Beef is slow to digest, leaving you with a feeling of fullness that lasts for hours that can result in eating less overall calories throughout the day.

12) Carrots

Although carrots are a high glycemic food in that they're converted to sugar rather rapidly, they're a tasty source of fiber and beta carotene, an antioxidant which is proving to be an even more powerful free radical scavenger than once believed. Carrots are a great choice when the craving to eat something crunchy comes over you. Pass on the chips and pick up some carrot sticks. When it's time take off your shirt, you'll be glad you did.

13) Lentils

Whether in soups, as a side dish or as a compliment to other whole grain dishes, lentils are a tasty addition to most any meal. They're high in iron, folic acid and magnesium, which is vital to muscle contraction and the maintenance of normal blood pressure.

14) Jerky

This almost falls into the "junk food" category because jerky contains spices and preservatives. Still, with 12 grams of protein, 4 grams of fat and only 2 grams of carbohydrates per serving, jerky is a snack with impressive macro-nutrient stats.

15) Soybeans

Toasted and salted soybeans are similar in taste and texture to nuts. The big difference is the protein to fat ratio. Most nuts are over 75% fat whereas soybeans are about 75% protein. They're also high in vitamin B6 and phytochemicals which have been recognized as beneficial to prostate health. Don't go overboard with soybeans, though. Although a small amount are fine, excessive soy in its raw state may increase estrogen levels in some people.

16) Tomato Sauce

Tomatoes are rich in lycopene which has been linked to a reduction in prostate cancer. They're also high in vitamins C and A. Does this make pizza health food? That may be pushing it. Nevertheless, tomatoes in the form of sauce, juice or in their raw state, are vital to every man's health.

17) Bananas

Sweet and delicious, bananas are one of the highest sources of potassium which helps regulate water balance. (Without sufficient potassium, it's easy to retain water which looks like fat.) Eating a banana one half hour before a meal can help suppress the appetite.

18) Turkey

This delicious delicacy isn't just for Thanksgiving dinner. The biggest problem with fresh turkey is the time it takes to cook it, so save the undertaking for a day when plan on hanging around the house and watching a few games. Then you can count on having a high protein meal for the next three days! Sliced deli turkey is also an excellent choice.

19) Sugar Free Pudding

Okay, so we cheated on this one. Sugar free pudding offers no nutritional value but it's as close as you can get to a sweet decadent treat without all the fat, sugar and empty calories that go along with such an indulgence. When a craving for dessert hits, sugar free pudding is the perfect choice.

20) Meal Replacements

In many ways, meal replacements are the most obvious choice of all in that they're specifically designed to have a favorable nutrient to calorie ratio. Once again, taste is a factor and that's an area that varies widely among the different products. Since flavor is subjective, it may take some experimenting to find which products you prefer. At any rate, there's no reason to drink something you don't like just because it's "good for you." Many of today's meal replacements taste like ice cream shakes. You can even mix a bland protein powder with different flavorings, chocolate, fruit

flavors, etc., and make your own protein drink for a fraction of the cost. Add creatine, colostrum or flax seed for a specialized muscle building meal.

There you have it. Twenty fabulous foods that not only won't blow your diet but help you have more energy and gain more muscle. There's no reason to starve or deny yourself good tasting food. As long as you make the right food choices, you can enjoy eating and still get in great shape. Bon Appetite.

GREAT TASTING WAYS TO GROW MORE MUSCLE

If you're looking to gain weight, extra calories, especially protein, is essential. If losing fat is the objective, maintaining adequate protein is the only way to prevent muscle loss while in a calorie deficit. Most any quality protein supplement fills these needs quite well. One of the problems with most meal replacements is that they don't work very well in accomplishing what their title suggests, that of replacing a meal. A liquid food source is digested quickly, which is great when you want to replenish nutrients after a workout but not so great if you're looking for something that will keep you full for hours. Some products attempt to fulfill the "satisfaction" quotient by adding thickeners producing a more immediate feeling of fullness, but this tactic has its drawbacks. Swigging down two or three "heavy" shakes every day is a procedure few people can tolerate on a consistent basis. Besides, even if the drink is thick, it will be quickly digested, leaving you with hunger pangs soon afterward. In that regard, meal replacements are most effective for weight gaining purposes. Having a shake in-between meals will add extra protein and calories while still maintaining enough of an appetite for solid food.

Take a look through any bodybuilding magazine or stroll down the aisle of your local health food store and the apparent choices of products are staggering. Literally hundreds of companies are vying for your business. I'll forgo recommending any particular brands since a big factor in choosing a meal replacement is its taste, and what one person thinks tastes like ice cream, another person thinks tastes like melted linoleum. To each his own. If you've been supplementing for a while, you probably know what you like and are reluctant to change. But getting extra protein is never a bad idea.

The following recommendation is meant to be an adjunct to your current protein supplementation. It requires nothing more than an initial investment of some unflavored protein powder.

Although whey has become the most popular choice due to its high bio-available profile, it may be best to use a combination of protein sources.

Egg protein is, in some ways, preferable to whey in that it's a more "pure" protein.

Milk protein has the advantage of being slow to digest, making it a more "time released" muscle building source. It also provides a nice texture and "mouth feel."

Personally, I prefer a blend of 50% Ion Exchanged Whey, 25% Casein, 20% Egg White, and 5% Whole Egg.

Okay, so you've got your protein. Now, what do you do with it? The answer is to simply implement the protein into your favorite flavor shakes and desserts. For some strange reason, many of the chocolate flavored pre-flavored meal replacements taste dreadful, yet chocolate is the easiest flavor to make delicious! In some cases, the reason for the foul taste could have to do with the additional vitamins and minerals added to the MRP's, but if you take a quality vit/min supplement, your micronutrient requirements will be covered.

For the best tasting CHOCOLATE PROTEIN SHAKE, try this:

In a blender, mix one cup of 2% reduced fat milk, 4 ice cubes, and one scoop of your protein blend. Mix ingredients together. Then add 1 spoonful of cocoa, one spoonful of sugar, and one packet of either aspartame or sucralose. If preferred, you can use a pre-mixed chocolate flavoring (i.e., Bosco or Nestle's Quik – either regular or sugar-free or a combination of both.) Note: Most artificial sweeteners work best as sweetening "enhancers." If there's some real sugar used along with it, they're fine, but by themselves, they're pretty gross – at least I think so. Although this chocolate shake may seem like it would be too high in sugar, the overall carb content won't be much higher in products which use maltodextrin or fructose or dextrose. And it'll taste a lot better! If you want a weight gaining version, substitute the 2% reduced fat milk with Half and Half. That'll make you grow! If you're extremely underweight, you can add a scoop of ice cream.

CITRUS SMOOTHIE

Here's one that would normally be considered for fat loss since it's light and refreshing, but due to the fact that it goes down so easily, it's actually great for mass building programs as a super source of extra protein. In a blender, mix a half cup of cold water, one scoop of protein powder, one banana, 10 frozen strawberries, 4 ice cubes and 2 packets of sucralose or aspartame. Voila! A delicious summertime treat – anytime! When working with unflavored protein, it doesn't only have to be used in shakes. There are plenty of ways to utilize the protein without even knowing how to cook. Here are a few examples:

INSTANT PROTEIN PUMPKIN PIE

Blend protein and milk into a thick batter and pour into a bowl. Add one can of pumpkin, and a half box of instant vanilla sugar-free pudding. Mix in 4 packets of aspartame or sucralose and a glop of honey. Add 1/4 ounce of pumpkin pie spice (Cinnamon, Nutmeg and Allspice) Pour contents into a graham cracker pie crust and refrigerate for 20 minutes. A killer dessert with approximately 15 grams of protein per slice – and a hefty dose of fiber as well!

PROTEIN BROWNIES

Using a half cup of pre-packaged brownie mix along with a half cup of protein blend, add one egg, a quarter cup of oil, walnuts, and 4 packets of sucralose. Pour batter halfway up in a greased cupcake pan. Bake at 375 degrees for 8 minutes. Allow to cool fully. YUM!!!

PROTEIN OATMEAL COOKIES

Mix two packets of apple cinnamon instant oatmeal with a large scoop of protein powder. Add one egg, a spoonful of cinnamon, 1/4 cup of wheat germ, a small box of raisins (optional) a dash of salt, 4 packets of sucralose and an 1/8th of a cup of oil. Squish batter into flat 2" cookie shapes on an ungreased pan. Bake in pre-heated oven at 350 for 8-10 minutes.

These will be hard to resist! And they're great to throw in a Tupperware bowl and take along with you for a quick high energy/protein snack on the go.

Naturally, desserts of this type, even though they're protein fortified, aren't meant to be consumed in copious quantities. They're more of an additional source of protein that will quell your sweet tooth without blowing your diet – or your budget. By making your own "meal replacements" you'll be saving a ton of dough as well as making sure you like what you're eating.

Protein supplementation doesn't have to be a financial back breaker and it doesn't have to be treated as if it's something mysterious and highly scientific. It's just food.

THE KETOGENIC FARCE

An Expose' of a Disastrous Diet

When discussing nutritional strategies for the bodybuilder, it's doubtful a discussion can last for two minutes without someone mentioning the ketogenic diet. This controversial method of losing weight and burning fat has become a widely utilized diet plan among bodybuilders embarking on a fat loss diet, yet I sometimes wonder if anyone knows why. It could be that the ketogenic diet falls into the same category as so many other fallacies that are perpetuated through "parroting" in that an authority makes a claim (coupled with some sketchy scientific rationalization), and before long, it spreads among those in the field. After a while, everyone who wants to sound like they know what they're talking about begins repeating the information. Soon, the hyperbole and hypothesis are considered fact. If the information is of a technical, scientific perspective it has an additional snob appeal which appeals to exercise elitists. In an effort to appear "in the know," no one dares to disagree with the popular consensus. So is the case with ketogenic diet.

There are so many things wrong with using ketosis as a fat loss tactic that it's hard to know where to begin. But I shouldn't get ahead of myself. For those of you who are unfamiliar with this diet method, here's a brief outline of the principles involved.

The Ketogenic Diet was written by then 24 year old UCLA kinesiology student, Lyle McDonald. The premise suggests that by excluding carbs from one's diet, the body will then be forced into a state of ketosis, forcing it to burn fat for fuel. I have no argument with that. In fact, when I first read of Mr. McDonald's findings, my initial response was to say: "give me some more groundbreaking information, like the sky is blue or OJ is really guilty."

The concept of cutting carbs in order to lose weight is nothing new. Back in the 40's, when the science of nutrition was in its infancy, the only information coaches had for helping athletes in losing weight was; "lay off the starches." They didn't know nor did they care why it worked. It just did. It was obvious that eating too many carbohydrates would make you fat. If that tactic didn't work they had a back up plan: "Get the fork out of your face."

Worked every time.

Of course, there were physiological reasons for the occurrence and those principles were later compiled and marketed to the general public by a certain Doctor Robert Atkins back in 1973. Fifteen years following Dr. Atkins studies, Dr. Mauro DiPasquale wrote a book called *The Anabolic Diet* which explained how bodybuilders could implement the high fat diet into their programs for greater muscle gains. (Which was something training coach Vince Gironda advocated in a less formal fashion back in the 1960's). Concurrent with Dr. DiPasquale, Dan Duchaine offered a similar assessment in a document entitled "The Ultimate Dieting Handbook." (Later re-written into "Body Opus.") So my question is this: Why is everyone so impressed with the ketogenic diet? It's essentially old news.

Besides its lack of originality, the concept of the low/no carb diet is also severely flawed. Placing the body in ketosis takes the already bad idea of dropping carbohydrates and makes it worse.

This is why:

For starters, the utilization of ketones for energy induces tremendous metabolic stress. It will work for a short while and cause a dramatic loss of weight but the loss will be temporary, mostly due to its dehydration effect. It can also elicit dangerously low blood sugar levels and places considerable strain on the kidneys. Since the brain requires carbohydrates for fuel, a deficiency can lead to dizziness and disorientation. The current trend of incorporating insulin into the array can lead to such a severe drop in blood sugar, it could instigate a state of comatosis. Mess up and you may mess up big time – maybe for the last time.

On a pragmatic side, the ketogenic diet is almost impossible to maintain. The food choices are too limiting. Constipation is often a problem. (A big problem). Energy levels plummet resulting in sub par workouts. Your muscles flatten out. The absence of carbs is also extremely catabolic. Any way you slice it, ketosis is an unnatural and unhealthy condition. You're essentially beating up your body in order to lose weight. It's one thing if winning a bodybuilding contest is your goal and you tough it out for a few months, but excluding grains of any kind on a consistent basis is nothing short of self torture. Only the truly obsessed can live day to day in such Spartan denial.

Eat a piece of bread. It won't kill you.

Perhaps the strongest argument to the ineffectiveness of the ketogenic diet comes from the author himself. Lyle's reputation grew quickly and he soon became known as an exercise and nutrition guru throughout the bodybuilding community. He gained notoriety as a popular "ring leader" of an internet newsgroup dispensing his rhetoric with a pompous and almost bullying tone to those who questioned him. He was respected and revered by a loyal following of disciples...until they saw what he looked like.

Now let me preface my next remarks by saying that it isn't necessary to look impressive to be a good coach. However, Lyle, despite the fact that he was young and not particularly big, had what many would consider a hefty bodyfat percentage. Again, you can't blame someone for their genetics, but if you're going to imperiously espouse a system as effective, at least practice what you preach. Lyle was a perfect example of the ketogenic diets failings. It looks good on paper, but in reality, it just doesn't pan out.

Once Lyle's omnipotence was questioned by his former flock, he vowed to get into the best shape of his life using the principles of the ketogenic diet. He then posted pictures of himself. Pffff. There was hardly any change! It simply looked as if he started working out a little. The people who frequented the message board were merciless in deriding his efforts. Whether or not the criticism was justified is arguable. Be that as it may, it ostensibly proves that the ketogenic diet isn't a miracle cure.

Still, there are many who will attest to the benefits of the Ketogenic Diet and swear that it worked for them. (Of course, many use fat burning drugs at the same time). I find it especially humorous when someone misinterprets information, yet still gets results. I recently spoke with a competitive bodybuilder who declared he never got more cut than when he eliminated bread, potatoes and pasta from his diet. Then he went on to explain that he ate rice with every meal! Rice?! That's the starchiest, highest glycemic carb in the world! Yet, the diet still worked – because he ate clean and ate sparingly. There was no way I could convince him his "no carbs" plan was totally off base, so I didn't try.

(Note* Even in Ronnie Coleman's video, there's a point where he's eating his "no carb" meal – chicken cutlets – dipped in barbeque sauce!)

The cold hard truth is – people want to think they're being "high tech." It gives the impression that they're privy to "inside" information which will give them the extra edge. By obtaining a wealth of esoteric scientific knowledge, one can hopefully understand the workings behind a protocol. Well, it's time to wake up and smell the sneakers. Understanding how something works or why it should work, is often in contradiction to what works in the real world (much to the chagrin of many a scientist). Naturally, if fat loss is your objective, excess carbs should be the first to go. But they are still needed. The fact remains, the basis behind any fat loss diet is that you need to burn more calories than you take in. That may be the main reason low carb diets work at all. The food choices are limited and you simply wind up eating less. It may seem appealing to be able to eat hamburgers and sausages but how much of that stuff can you chow down every day at the exclusion of most other foods? I don't know anyone who thinks that lamb chops are a good before-bedtime snack!

If you're thinking about going on the ketogenic diet, you may want to think again. It's only a quick fix which can ultimately backfire by disrupting your metabolism. Don't rely on gimmicks – even if they're saturated with "sciency" jargon. Keep it simple. Learn proper eating and implement rational calorie restriction if you want to remain lean and hard, year 'round. That's what has always worked. As a matter of fact, it's the only thing that works.

And for a final note on the topic I'll leave you with this excerpt from the movie "Analyze This."

Gangster One: "I'm hungry."

Gangster Two: "Eat a sandwich."

Gangster One: "What can I eat that's less fattening?"

Gangster Two: "Half a sandwich."

I couldn't have said it better myself.

What? No mention of what type of protein is best for muscle growth? Okay, here goes.

Excluding other elements present in a particular food and excluding the speed of absorption...

...a gram of protein is a gram of protein is a gram of protein.

THE TRUTH ABOUT STEROIDS

IS SAFE STEROID USE POSSIBLE?

Some Rules To Follow When You Decide To Break The Rules

Opinions on steroid use tend to fall into two distinct categories. You have those who are vehemently opposed to them, swearing that they're the scourge of sports – then you have the advocates, the hardcore bodybuilders who will do everything and anything to build muscle and steroids are at the top of the list. It's either one way or the other. No yin. No yang.

Neutrality within controversial topics is rare. More rare is the willingness to see both sides of the picture. If you're dead set against the use of pharmaceutical enhancement for either moral, ethical, medical or legal reasons, you'll have plenty of arguments to support your conviction. Steroids, used irresponsibly, can cause a host of complications. However, many such "anti-roid" assessments stem from a lack of credible information and far too many people draw conclusions and cast aspersions on those who wish to partake based solely on prejudice and ignorance. These are the people who always know a guy who knew a guy, who had a friend who knew a guy whose brother worked with somebody who had a neighbor who knew a guy who took steroids and his head exploded.

The truth is, the potential side effects of steroid use are mostly dose and duration related. Unfortunately, it's that very fact that prompts some bodybuilders to consider drug use an almost benign endeavor. No one thinks they take too much. Everyone believes they have things under control. Problems only happen to the "other guy."

Simply put, steroids are drugs, and there is no such thing as a completely safe drug. They certainly don't deserve to be on par with narcotics (although they're classified as a schedule II drug) yet, they can easily be abused. Attempting to set a guideline for responsible use of steroids isn't unlike setting boundaries for responsible alcohol use – it's too ambiguous and open to interpretation. No one ever wakes up and says; "I'm going to be an alcoholic!" But it happens to millions of people each year. The same can be said for steroid use. Thousands upon thousands of men and women have sworn; "I want to do just ONE cycle!" Nice try. But once you've dipped into that bag of tricks, it's difficult to resist its allure and subsequent cycles are almost sure to follow. The better the gains, the greater the temptation to push the envelope further. And once you get used to feeling like Superman, it's tough to go back to being Mr. Normal. That's when you've got a problem, whether you're willing to admit it or not.

The only sane approach to steroid use, for those of you who've already decided to take the plunge, is to use them in a judicious fashion following certain stipulations. Once again, parameters become blurred by the individual's ability to rationalize. A tweak here and an alteration there won't make much of a difference, will it? Maybe. Maybe not. But only by staying within the boundaries can you be sure (or as close to it as possible) to avoid contraindications.

If there was a "rule book" of sorts on safe steroid use, it may look something like the following. It's a check list of protocols that will insure you keep the risk to benefit ratio leaning in your favor.

Rule No.1:

No one under the age of 24 should use steroids. Until the age of 24, your body is overflowing with testosterone and growth hormone. If you can't make progress without drugs when you're still young, you need to re-evaluate a few things – mainly your training and your supplementation. There's no reason why you shouldn't be able to progress on a consistent basis without drugs. And if you can't, chances are you won't do much better with drugs. Steroids will also close the growth plates of long bones so if you haven't reached full height, steroids may prevent further skeletal development, not to mention, they'll be shutting down your hormonal system at a time when it's reaching maturity. Don't mess with your reproductive system at this point. You're going to need it.

Rule No. 2:

You shouldn't commence steroid use until natural pathways have been exhausted. Even if you're over 24, steroids should never be used as a shortcut. In doing so, you'll be cutting yourself off from ever reaching your full potential. You don't know what you're capable of until at least 5 years of training naturally. After that, if you honestly believe you've reached your genetic peak and cannot make any further progress, then and only then, should you consider taking steroids.

Rule No. 3:

A full medical check up, including blood work is essential. Moderate steroid use, if it were legal, is usually safe for a healthy adult. Still, there's no telling how someone will react to any foreign substance. Check with a doctor to make sure you aren't taking any unnecessary risks. Most bodybuilders forgo this process because finding a physician who is open minded in the usage of anabolics may be hard to come by. Steroids can place a strain on the vital organs and if you have any underlying problems, they may be exasperated. A second blood test following the cycle would also be a good idea to see how well you reacted to the drugs.

Rule No. 4:

All cycles should be no longer than 3 weeks in length. This goes against conventional thinking but it makes perfect sense. The greatest gains come when the receptors are fresh. Why not make the most of this precious "window of opportunity?" Then get out and get clean. Naturally, gains won't be massive due to the abbreviated cycle length, but remember, smaller gains are much easier to maintain. It doesn't matter if you put on 30 pounds if you lose 20 of them. (In fact, if you put on that much, chances are you'll lose the last 10 as well because you'll be in such a catabolic state once you come off and "crash.") But a gain of 6-7 pounds in three weeks – that, the body can handle. Also, the shorter the cycle, the quicker the endocrine system can normalize.

Rule No. 5:

Dosages should be kept to an absolute minimum. There are certain self-proclaimed steroid gurus who are advocating megadoses of steroids going with the assumption that; "If you're going to suppress your natural testosterone anyway, you might as well take as much as possible." That line of thinking may sound logical, but all you have to do is take a look at some of the champions from the 60's and early 70's to prove it wrong. Men like Larry Scott, Don Howorth, Sergio Oliva, Harold Poole, Dave Draper, Frank Zane and many, many more made outstanding gains using just a couple of

Dianabol a day! And they accomplished it without the hideous side effects such as impotence, bloated bellies, and swollen nipples which are so prevalent among today's professional bodybuilders. That's because they knew how to train and how to eat. They didn't just let the drugs do everything. There's a valuable lesson to be learned there.

Rule No.6:

Avoid substances that pose the biggest risk. This may appear to be a "no-brainer," but you'd be surprised how often this rule is broken. The reasoning is usually due to the fact that only certain drugs may be available. That doesn't make it okay! Anadrol, Halotestin, Parabolin, and most testosterone are but a few that can cause irreparable damage. Although a milligram of steroid is a milligram of steroid in terms of the way it affects muscle cell, certain drugs have a lower risk to benefit ratio. But even steroids that are considered mild can have negative side effects. Deca-Durabolin has long been a popular choice among bodybuilders, mostly because it's a powerful anabolic with few androgenic side effect, yet new evidence suggests that Deca will still suppress the HPTA (hypothalamic-pituitary-testicularaxis) as much, if not more, than straight testosterone. It also produces progesterogenic effects making it a culprit in the development of "bitch tits." (Gynecomastia) Winstrol and Anavar are potent oral steroids with a favorable profile which makes them superior to more harsh orals like Dianabol. (Although Dianabol is known to have the biggest bang for the buck). But as is the case with all orals, they can raise LDL (bad) cholesterol and lower HDL (good cholesterol) levels. Since the pill dosage of both Winstrol and Anavar is so low, up to 30 tablets a day are required, placing a strain on your liver as well as your bank account.

The one steroid considered by many as the "most safe" would be Primobolan Depot. It's as close to a perfect steroid as possible in that it retains nitrogen extremely well (allowing for more muscle growth via the ingestion of protein) with virtually no endogenous suppression of testosterone. (If cycles are kept short). The drawback of Primobolan is that it won't produce "spectacular" gains. It's also expensive. This encourages many bodybuilders to eschew Primo and go with something like Testosterone Cypionate which is cheap and will cause dramatic size spurts in a relatively short time. Unfortunately, as with most testosterone esters, the gains are lost shortly after cessation of use. The muscle from Primobolan tends to be more solid, and should be maintained once the cycle is terminated. (Note* This may be due to the very fact that it's so weak.)

There's also an oral version of Primobolan (Acetate) which is not liver toxic, the reason being it isn't 17-alpha-alkylated. The alkylated process is what prevents the liver from breaking it down, thus placing it under additional stress. The down side of a non-17-alpha-alkylated oral steroid is, the drug remains in your system for only a few hours necessitating several doses throughout the day. Primobolan tablets once came in 50mgs, which meant four a day were all that were required for an effective dose. Most Primo tabs manufactured today come in only 5 mgs! This makes it ideal for women but completely impractical for men. Forty pills a day at a dollar per pill is simply out of most bodybuilders' budgets.

Rule No. 7:

Once gains cannot be made with 1000mgs a week, it's time to stop – for good.

Each time you do a cycle, the body will develop more of a tolerance until it requires higher and higher dosages to induce gains. If you get to the point where a total of

1000mgs a week isn't producing noticeable gains, it's time to call it quits. That means, let it go entirely. Accept the fact that you've obtained far more muscle than you could have naturally and cut yourself off. If you try to continue beyond this point with ever increasing dosages, you may never make it back to a normal lifestyle. You may be bound for a life of dependency.

Steroid use is a personal decision, one that should not be condemned or condoned. Anyone who makes a conscious choice to use drugs must understand the risks and accept responsibility for the repercussions. Although such an individual isn't a threat to society and shouldn't be treated as such, the lawmakers see it differently and that's a stark reality that must be taken under consideration. Since anabolic use is illegal in North America, the danger of dealing with a black market becomes a significant factor. Counterfeits, bootlegs and veterinarian products are often passed as genuine pharmaceutical grade merchandise. Some products contain no active ingredients at all. Some may actually be contaminated. Anyway you slice it, you're taking a chance. You can't be too careful.

There may not be such a thing as "totally safe" steroid use, but if you keep within these guidelines, you stand a much better chance of avoiding a catastrophe from which there may be no return. Play it smart. Play it safe. Grow in peace.

BE CAREFUL WHAT YOU WISH FOR

The observation that stacking two or more drugs was more effective simply because it was "more drugs." I also concluded that steroids aren't all that different in terms of receptor site acceptance. In other words, it was the overall milligram strength of the drug that was the factor in its effectiveness. Winstrol was considered a weak drug while Anadrol was considered a strong drug. Yet Winstrol is a 2mg tab while Anadrol is a 50 mg tab! Of course it's stronger!

Pretty simple eh?

Nevertheless, it was something that was overlooked by the reigning authorities and my laymen's insights got me on the map, so to speak. It seemed as if one day I was looking for anything written by Dan Duchaine and the next day I had his home phone number. Before I knew it, I was known as a "drug guru" – a title I neither expected or wanted, and in many ways, I regret.

In spite of some technical flaws, Steroids For Health became a blueprint of sorts for responsible drug use (if there is such a thing). The down side of that dubious distinction is that many people viewed it as a license to use steroids.

The following is a reworking of the concepts of SFH geared toward the bodybuilder set on using anabolic steroids. It is submitted as a source of information, not an endorsement.

Note: Although one can't contribute the early deaths of self-admitted extremists such as Dan Duchaine and Paul Borreson to steroid use... it makes you wonder, doesn't it?

CLASSIC BODYBUILDING

OLD-TIME TRICKS FOR NEW-FOUND MUSCLE

Would you like more muscle? What a stupid question.

Even though building muscle is never easy, the bodybuilder of the 21st century has more advantages than ever at his or her disposal. There are state of the art gyms with high tech equipment and an endless assortment of supplements designed to fulfill your every health, strength and muscle building need. The advancements of the sport of bodybuilding within the last century are astounding. But if you were to take a look at a training manual from the early 1900s, you'd realize one similarity between then and now: Exercise has changed very little.

Muscles push – or they pull. And every exercise does one or the other. The forefathers of bodybuilding knew this and came up with the same movements with many of the same variations that we use today. There's one difference, however. Back then, they had little to draw upon. The information in the magazines was limited. There were no videos, no seminars, no EMG analysis. Most exercises were concocted through experimentation and good old trial and error. Very often, the movements used by our iron ancestors were odd and impractical. After a while, these awkward exercises were discarded for more acceptable alternatives. Yet somewhere along the way, many viable techniques have been overlooked and forgotten.

As most bodybuilders know, if you want to continue building muscle, every now and then you have to "shake things up" – hit the muscles from odd angles or use a piece of equipment with a different "feel." In an attempt at discovering such methods, the tendency is to look forward for cutting edge information, but sometimes it isn't a bad idea to take a look backward. Maybe it's time to recognize the fact that many of those old timers stumbled across some good ideas that have gotten lost in the shuffle.

The following is a group of exercise techniques which you're unlikely to see being performed in most gyms today, yet, at one time, they were a staple of most bodybuilder's routines. They also work remarkably well. You may wonder why they've been discarded – until you try them. They're damn hard! The modern bodybuilder has become so accustomed to silky smooth machines that any movement that doesn't glide along a controlled curve may seem strange and uncomfortable. That's exactly why you should do them! Give these movements a go and the following day you may find yourself sore in spots you never knew existed!

One Arm Barbell Clean and Press:

If you've never done this movement, you may want to start with a dumbbell until you get the hang of it. The premise is simple but the execution is anything but!

Grasp the barbell while on the floor and clean it up to your shoulders. Now with a hoisting motion, press the bar overhead while leaning to the opposite side. In other words, when lifting with the right hand, lean over to your left until your torso is as parallel to the floor as possible. You can place your left hand on your knee for

balance at first but try to get it so that you can hold the hand without the weight out to the side.

At this point continue to press the bar above for 4-8 reps. Lower and repeat with the other arm.

Not only is this movement great for developing balance and functional strength, it's an awesome deltoid developer as well! Try to work up to as heavy a weight as you can manage under control and soon your shoulders will be bulging with brand new beef!

Circle Raises:

Here's a weird one I'll bet you've never seen. Be careful with this movement! If you have any existing shoulder injuries or if the movement causes any pain whatsoever, stop immediately! If, on the other hand, it poses no problem – go for it!

Brace yourself with one arm against a support. Hold a dumbbell in your free hand and slightly away from your side. Now raise the dumbbell to shoulder height in small to ever-widening circles. Start with a small one, then a bit larger one and continue widening the circle until the weight is at shoulder level. Return the dumbbell to the starting position beginning with big circles working down to a small one at the conclusion of the set. Alternate between clockwise and counterclockwise circles. Use a weight that will let you make 10-12 circles from side to shoulder and 10- 12 circles from shoulder to side for 15 reps. Add a couple of sets of these circle raises after you have completed your heavier shoulder work. Man! These babies will have you sprouting "cuts" every which way throughout your delts!

Straight Arm Barbell Pullovers:

Up until the 1970s, there wasn't a bodybuilding routine that didn't include this movement. Today, it's all but extinct. Nevertheless, the straight arm pullover is an outstanding upper body exercise that tightens the entire torso, including the abs! It also increases "lung power" if done correctly.

Lie down on a flat bench and keep your feet on the bench to prevent arching of the back.

Hold the weight at arm's length above your upper chest. Take a shoulder-width grip and keeping your arms stiff and straight throughout, slowly lower the bar behind you and simultaneously inhale deeply. Do not inhale in one gulp, but in a steady stream. Spread your ribs as much as possible.

Lower your arms until they are parallel or only slightly below parallel with the floor. Do not go down as deep as possible. At the safe bottom position, take an extra breath of air. Briefly pause and then return your arms to their starting position as you exhale. Repeat.

Power Rack Iso-Presses:

This is a combination of isotonic and isometric exercise that is terrific for building strength at the weakest portion of a particular movement. For example, let's say your bench press is weak because you have trouble generating power at the lower portion of the movement. In that case, you would place a bench in the power-rack and put the pins a few inches above your chest.

Place a loaded barbell on top of the pins and place another set of pins (or a suitable substitute) a few inches above that.

Now, within that short range of motion, press the bar into the top pins and continue to push! When fatigued, lower the bar onto the bottom rack – rest for 10 seconds and repeat.

This is a killer move that doesn't look like much but will help you break through those nagging sticking points. This can be done with overhead presses, curls, shrugs...almost anything! Try midrange squats in this manner and you may wind up needing crutches after a couple of sets! But your legs will soon be more dense than ever.

The Swingbell:

This peculiar movement is one you'll see in many an archival film from the early days of gymnasiums and health spas. It's also great for lower back definition, taunt oblique muscles and it adds flexibility to the hip flexors.

Hold a light dumbbell with both hands directly overhead.

In a big, smooth, sweeping motion, bend at the waist and swing the torso in a complete circle when continuing to hold the bell directly over your head. Yeow! Talk about tough! Expect to be breathing heavily after a set of these.

Original Hack Squats:

Ooh, you're not going to like this one. Be that as it may, this is a remarkable movement for building mass onto the quadriceps.

The motion is the precursor to the hack machine, only this time, there's no machine. You do the squats while holding a barbell with your arms at your sides, palms behind you, holding a barbell behind your back! Needless to say this is a very restricted movement but one that will make regular squatting seem like a pleasure. Another variation is to hold a barbell between your legs (one arm in front of you, the other in back). Don't try to lock out on this one since the bar will get precariously close to the "jewels."

Believe it or not, these movements were commonplace at one time back when bodybuilders weren't afraid of a little pain. Barbell Hacks were also responsible for some pretty impressive thigh development prior to the advent of steroids. Can you handle it?

Spring Chest Expanders:

Almost everyone has used or at least seen a set of these clumsy contraptions. What's ironic about chest expanders is that the basic movements don't really work the chest! However, these archaic devices are an excellent adjunct to regular training. They can be used at spare moments at home in a variety of angles to tighten up the triceps and delts. When expanded overhead and out to the sides, they hit the lats in a way that's unlike any machine, weight movement or lat pulldown. You can still find them at most sporting good stores for less than \$10.00.

Try incorporating these movements into your weekly routine and you'll start seeing major muscle growth in a hurry. They may be from a bygone era, but as far as your muscles are concerned, they're a brand new form of stimulation.

They say you can't teach an old dog new tricks. Maybe so. But when it comes to building muscle, it seems the old dogs had a few tricks of their own.

MASS FROM THE PAST

Here's a news flash. The human body hasn't changed much in the last 100 years. What worked once, will work again. What didn't – still won't.

It's easy to get sidetracked because there's a misconception that today's bodybuilders are better than those of the past. Not so. There's simply more people bodybuilding, hence there's a bigger pool from which to draw. Take away the drugs and for the most part, today's bodybuilders wouldn't look any better than past icons such as Rick Wayne or Chet Yorton or Freddy Ortiz. As a matter of fact, I sincerely doubt if they'd look as good.

I believe the old timers of the game were more knowledgeable, more dedicated and more "advanced" than the slew of drug bloated lunkheads, pedantic geeks and armchair experts who control the sport today. It's a shame so much of their wisdom has been overlooked.

The following articles are some of my favorites dedicated to the old school of bodybuilding. Enjoy.

LOST SECRETS FROM THE GOLDEN AGE OF BODYBUILDING

So often, as athletes, we look forward to the next scientific breakthrough. What is the latest technique or diet plan that will make all the difference? We try esoteric training routines, experiment with timing the intake of food and supplements, and anxiously await hearing what this year's "Mr. Endorsement for Hire" says is the best way to build 21 inch arms. Yet, people so often forget the axiom, "the only thing new under the sun is what has been forgotten." How true. There is very little anyone has to say that hasn't been said already. But the simplistic poignancy of that statement somehow gets lost in our natural desire for progress. If something has already been done, it isn't progressive, right? Not necessarily. Many great inventions have been based on concepts that had already been in existence. Television is an extension of the technology obtained from radio and photography. Computers are a progression from television. The music we listen to is still based on the formulas used hundreds of years ago. Even most of the movies we see are really rewritings of classic literature. So why as bodybuilders do we reject our own heritage? Is there nothing that can be learned from those whom have come before us?

Perhaps the dismissal of training techniques past is due simply to the fact that the bodybuilders of yesteryear don't have the freaky musculature of today's ironmen. A fair analogy would be to say that a modern day race car driver wouldn't compete in a model T, so why go back to a less productive approach?

Although on the surface that may seem logical, it's imperative to keep one thing in mind. Despite the fact that bodybuilders from 20 and 30 years ago did not have all the technological advancements we now enjoy, some of them were still pretty ripped!

Sure, they didn't have the overwhelming mass that most of today's men (and women) possess, but besides the outrageous amounts of growth promoting drugs taken by bodybuilders today, it is important to realize that bodybuilding then was an activity taken up mostly by people who had a deficiency of some sort. Guys that were small or skinny used weight training as a form of compensation for their shortcomings. Big men didn't lift weights. They didn't need to! It wasn't until Sergio Oliva hit the scene that it became apparent how awesome a naturally large man can appear if developed to his maximum potential. When Arnold came along, the rules were changed forever. Bodybuilding became a sport of giants. Only the most genetically gifted need apply. Steroid usage went from being an "occasional aid" to the main constituent in developing one's body. It isn't uncommon these days to see people using drug dosages that would make Dorian Yates' stack seem conservative, yet they couldn't take fifth place in a Mr. Northern New Jersey contest. What's going on here?

It would seem the problem is that so many of today's bodybuilders have forgotten that bodybuilding is an art form. As odd as that may seem in this "size at any cost" era, there is an artistic component to bodybuilding that would be advisable to reinvestigate. Case in point, the first Mr. Olympia, Larry Scott, had a pair of arms that rival anyone's today, but he also had narrow shoulders and a wide waist. It seemed unfathomable that he would one day be considered the best in the world. But Larry worked extra hard to sculpt (an old fashioned word if ever there was one) his shoulders and perfect a series of twisting poses that would diminish the size of his waist and accentuate the size of his arms. Illusion, presentation, art. These days, someone with Larry's disadvantages could simply take as many steroids as he could afford (or that his metabolism could tolerate, depending on his affinity for receptor site acceptance), shoot some Esciline into his shoulders and, well, pretty much wind up looking like everyone else – but with bigger arms. Throw in some liposuction, synthol injections, calf implants and... you get the picture.

Having been around this sport for almost 30 years, I find it fascinating when I pass along a bit of information that has been a part of my training protocol for years and it's received as something ingenious. I love it when clients ask, "where did you come up with this?" Well, the cat's out of the bag as they say. And an old cat he is. Here are a few of the training tips from the lost archives of the great sages of bodybuilding that were the staple of former weight lifters repertoire.

INSTINCTIVE TRAINING...

The old time bodybuilders depended on "feeling" what was right to do on any given day. The current train of thought is that we cannot trust our instincts. The standard cliché is "if you listen to your instincts, they'll tell you not to train!" By developing one's instincts, or "sense of intuition" if you will, it can prove more trustworthy than a training journal. Years ago, everyone had something that set them apart, be it Zabo Koszewski's shredded abs, Harold Poole's unbelievably dense muscle separation or Steve Reeve's perfect proportions, all these men had what I'd call a "finished product" – a result of fine tuning through experimentation. Instead of blindly following a routine, try thinking like a sculptor constructing a masterpiece. Use your imagination in the gym. Experiment with different angles and rep ranges. Why not vary the speed of each rep? Go heavy and light in the same workout? Work more if you want. Less if you want. Trust your instincts.

GAIN 10 POUNDS IN ONE WEEK...

Here's a trick attributed to the late, great Vince Gironda.

Every waking hour drink 12 ounces of water along with 6 desiccated liver tablets. Also, snack on nuts and olives all day long. If you have the vigilance to adhere to this activity, in one week you should be 5 to 10 pounds heavier.

Of course, much of it will be water weight but so what? In order to obtain more size it is necessary for the body to get accustomed to carrying more weight. This is an excellent method to do just that. Anyone familiar with the steroid ANADROL will tell you that most of the weight obtained from that drug is water, but increased water weight will make you very strong! (Creatine works very much in the same way.)

Desiccated liver tablets have fallen out of favor in recent years but they are not only an inexpensive source of protein, they are also high in the most assimilable form of iron. (Note: iron in supplemental form is usually ferrous sulfate which can effect the absorption of vitamin E as well as be toxic in high dosages). Liver also contains more vitamin B12 than almost any other food source. B12 is a highly effective appetite stimulant. In order to gain weight of any kind, it is necessary to increase your caloric intake. More strength + more water + more food = MORE MASS. Give this tip a try and you'll be amazed at how dramatic a difference it can make.

SWEAT BELTS...

Remember those? Actually, I'm surprised so few people incorporate this apparatus into their workouts. Sweat belts at one time were a very common training aid but because some manufacturers made overly enthusiastic claims, (Lose inches! No need to diet or exercise!), it lost credibility as a viable product. Sweat belts not only provide warmth to the lower back (which in my opinion makes it more advantageous than a lifting belt) but by inducing sweat, many athletes swear that it seems to "spot reduce" the waistline. This is probably due to the fact that the generated water loss allows for sodium removal which in turn induces a "harder" appearance. Here's a suggestion for even more subcutaneous water loss.

Mix Vaseline with the contents of a yohimbe capsule and apply it to the skin under the belt before your workouts. You may soon be seeing some abdominal definition that you once thought was unobtainable.

STATIC CONTRACTION...

Be it in the form of isometrics such as pressing a barbell into the immovable bar in a squat rack, or by simply "holding" a weight in the strongest range of motion, this technique is too often neglected. Static contraction is a safe and effective way of fatiguing a muscle group and increasing strength and vascularity. It also works great as a Pre-Exhaustion technique. Posing is also a terrific form of static contraction. Posing gives the muscles density and definition. Believe it or not, at one time, the posing routine of a competitor was a significant factor in their placing. Today, it is entirely the pre-judging, consisting of the mandatory poses, that determines the outcome of a contest. Hence, there are very few posing routines on par with that of the past masters. Watch some film clips of Arnold, Ed Corney and Frank Zane. Their routines flowed and told a "story". Notice how the muscles "popped" when they flexed them. A phenomenon curiously absent in today's competitors.

ROMAN CHAIR SIT UPS...

Once a staple in most gyms, you hardly see this archaic device anymore. Nevertheless, Roman Chair Sit-ups hyperextend the lower abs, thus providing stress and development in a way "normal" sit ups can't.

ODD LIFTS...

As mentioned previously, many of the old timers loved fooling around with different exercises, so an occasional "test of strength" was not uncommon. Power cleans, snatches and one arm presses might evoke a peculiar glance from onlookers in most health clubs, but many a powerful physique were built with such movements. Try tossing around a twelve pound medicine ball for twenty minutes and the term "cardio training" will take on a whole new meaning!

GET OUTSIDE!...

I wonder what Eugene Sandow would think if he saw people riding bicycles that didn't go anywhere and running on treadmills for no apparent reason other than to run? Years back, nobody did aerobics. What for? They don't build muscle! However, it was a common practice to use those beautiful muscles for something practical like sports or to be able to more effectively perform manual labor. Getting out in the fresh air and sunshine was a healthy activity that went hand in hand with a healthy appearance. If you look for the dangers in anything you're sure to find them and this certainly is the case with exposure to ultraviolet light. Everyone these days seems to avoid the sun like the plague. In my opinion, the dangers have been grossly exaggerated. Sunlight provides the purest form of vitamin D. It also assists in the production of certain hormones (including testosterone!) Simply follow two rules when it comes to sun exposure. 1.. Don't burn. 2..Don't get so tanned that you no longer can burn. As a colleague of mine who is in his 60's and still has great looking skin says, "There will be plenty of time to spend in the shade after you're dead!"

AVOID STARCHY FOODS...

Nutritionists are finally catching on to what our predecessors knew instinctively. It is the "starchy" carbohydrates such as rice, potatoes, bread and pasta that make you fat! One area where many of the old timers look as good, if not better, than today's bodybuilders is in abdominal development. No ephedrine. No clenbuterol. No diuretics. They ate meat and drank whole milk by the gallon yet they were sharp as razors (with great skin tone I might add). Getting in shape for a contest didn't take months. These guys were always in shape. Just a few days of eating clean and they were ready to step on stage. Back in the days when athletes such as boxers needed to lose some fat in order to make their weight class, the only advice they were given was "lay off the starches." That's because it worked!

BE SMART WHEN IT COMES TO PERFORMANCE ENHANCEMENTS...

When Dianabol was introduced in the 1950's, its negative side effects were unclear and some bodybuilders were willing to "take a peek under the covers", as it were, and explore the possibilities. None of them seem to have suffered any ill effects and years later many of them look remarkably good for their age. I don't think we'll be saying the same about some of the "walking science projects" competing today when they get to be around 50 years old. Here's a great method for...

NATURALLY INCREASING TESTOSTERONE...

It comes from one of the forefathers of modern bodybuilding, Angelo Siciliani better known as Charles Atlas. Did you know that the excessive heat from a hot shower can lower your sperm count? In fact, the Aztec Indians used this as a form of birth control (don't ask). Anyway, Charlie recommends finishing off your shower with cold water. Allow the cold water to flow from the solar plexus onto the genitals. The belief was that these areas contain the highest concentration of nerve endings, therefore, the cold would stimulate the nerves which in turn strengthened the entire nervous system. "Stimulate" is certainly the operative word here. I can attest to its effect since

I've been doing this for some time now. It takes a little getting use to but it sure is an eye opener!

LEARN TO TRAIN AROUND INJURIES...

Back in a time when not only was there no money in bodybuilding but it wasn't even considered an acceptable activity, bodybuilders trained out of the sheer love of the sport. If an injury occurred, the idea of losing a workout was unthinkable! There would be no coddling of injuries either. Exercise was always considered a healing activity.

Today, more and more doctors are prescribing exercise instead of bed rest for many ailments that were thought to need "inactivity." Hurt your elbow? Work legs again. Chances are they can use it. When was the last time you worked your abs so hard they were sore the next day? If you really want to make progress, there is always something you can do. Again, use a little imagination.

These are just a few of the long forgotten techniques that may still prove valuable. In this age of hi-tech exercise machines and computerized diet plans they may seem quaint and simplistic but they worked once for others and they will work again for you.

Maybe someday you'll be passing along this information to a neophyte of the game and it will seem new all over again. For now, start incorporating some of these rediscovered secrets on your own. Along with all the current advancements in training and nutrition, they can bring about a whole new dimension to your bodybuilding progress. The best of the old combined with the best of the new. Now that's progress.

THE ORIGINS OF BODYBUILDING

HOW IT ALL BEGAN

We all have a heritage. Our nationalities, our occupations and even our hobbies have their history. Where we've come from is a part of who we are. Pride is a part of it as well.

Our differences often cause dissension. Nevertheless, it's possible to cross ethnic and cultural lines via shared beliefs and interests which fuse our unanimity and camaraderie. The love of sports is such a catalyst. It brings people together with a common bond. Sports aficionados are known for their mutual devotion and reverence to the all time greats of a game. At times, they can be passionate to the point of fanatical when exuding their thoughts of how "it used to be." So why is it so few bodybuilders are familiar with the history of their own sport?

Maybe it's because bodybuilding isn't as much of a spectator sport as it is an individual pursuit. Since bodybuilding is also an activity which emphasizes the latest advancements in training, supplementation and performance enhancement, some may think it unnecessary to familiarize themselves with old and outdated methodologies. It's also fair to note that many gym-going bodybuilders in the year 2000 are comparable in muscularity to some of the top competitors from the 1940's. All too often, this leads people into thinking that our iron ancestors have little to offer to today's young lions. Nothing can be further from the truth.

Beyond the lessons to be learned, there's a great and often engrossing history to the sport of bodybuilding. It's uncertain how it all started, but the fascination with strength and muscularity dates back to the beginnings of recorded history. Folklore and myths are filled with stories of strong powerful men from the ancient Greeks (Hercules) to the bible. (Samson) But bodybuilding, as we now know it, has its roots at the turn of the 20th century.

THE ARRIVAL

The early 1900's brought a tremendous import of Europeans to American shores in the hope of a better life, or more realistically – a job. These were a people who were accustomed to hard work whereas many of the more opulent Americans were growing soft from living the "easy" life. This made the influx of big, burly aliens the perfect candidates for manual labor.

OPPORTUNITY KNOCKS

Work which involved heavy lifting was the only recourse for most of the undereducated immigrants and competition for employment became fierce. This was the impetus which inspired a few entrepreneurs to exploit their manly attributes and "sell" the notion of getting stronger. Ads soon began popping up extolling the virtues of physical fitness. Catchy headlines that by today's standards appear corny and quaint such as "Are You a Man Or Merely a Coat Hanger? (Charles McMahan) "I Make Men Strong" (Earle Liederman) and "Weakness is a Crime. Don't be a Criminal!" (Bernarr McFadden), were featured in magazines and newspapers.

Originally, these pitches were geared to the first generation foreigners who would benefit from a greater physical presence. Looking stronger meant being more likely to be chosen for work. It was a matter of survival. What many of the early muscle hucksters didn't expect was that the allure of greater strength crossed over to the general populace. The "blue bloods" wanted to overcome their "weakling" status. They wanted muscle too. And thus, the interest with bodybuilding had begun.

BICEPS BECOME BIG BUSINESS

Perhaps the first muscleman who can be regarded as a "superstar" was Eugene Sandow. Sandow was an early proponent of weight training who was featured in the wildly popular Ziegfield follies where he was billed as "The Strongest Man in the World." An overstatement to be sure, but the public ate it up!

Be that as it may, Sandow, besides his remarkable muscularity, exhibited some extraordinary feats of strength. At one point in the show, he lifted a platform containing 19 people—and a dog! His sense of showmanship, along with Ziegfield's flair for hyperbole, made Sandow all the rage. Suddenly, muscles were "in."

EVERYBODY'S A 98 LB. WEAKLING ONCE

Perhaps the most famous of all muscle promoters was a man named Angelo Siciliano, better known as Charles Atlas. Atlas marketed a mail order course which was a combination of isometrics, calisthenics and general health advice. It didn't sell. Then Atlas tried a novel approach. (With the help of promoter Charles Rodin and Dr. Frederick Tilney) He advertised in comic books and retitled the course "Dynamic Tension." It seemed as if he hit upon something. Before long, sales went through the roof! Atlas inadvertently discovered that even boys wanted to be more muscular. To many an insecure young man, Atlas' promise of "getting a body women will desire and men will envy" struck a nerve. In many ways, Atlas' course was selling hope. It worked.

To this day, the Charles Atlas course sells into the millions each year. What's especially interesting is that Atlas can also be considered the first "self help" guru! His course was filled with self empowering advice and affirmations. It extolled a basic philosophy of positive thinking. As antiquated as it may appear – everything in the original Dynamic Tension course still holds up as sound advice. What also still rings true is Atlas' motto: "Nobody picks on a strong man."

CLASH OF THE TITANS

The newfound interest in muscle which was sweeping the country prompted the physical culturist George Jowett to start what is considered the first bodybuilding magazine, STRENGTH. Among Jowett's students was a young man who had high aspirations, both as a strongman and a businessman. His name was Bob Hoffman.

In 1932, Hoffman founded the York Barbell Club which became the home base of many of muscledom's early practitioners, including John Grimek. He also started his own magazine; STRENGTH and HEALTH.

Hoffman was highly instrumental in bringing Olympic weightlifting to the fore of the public's consciousness throughout the 1930's. Bodybuilding, on the other hand, held

little appeal to Hoffman. He felt that muscles were a pleasant side effect to weightlifting but the pursuit of muscle alone was somewhat shallow. Another ambitious young man intent on beating Hoffman at his own game had different ideas.

Joe Weider saw the appeal of muscle and he concluded correctly that it was the appearance of muscularity and its consequential sex appeal that inspired most men to work out. In 1938, with his life savings of seven dollars, Weider published a crude pamphlet with an emphasis on bodybuilding over weightlifting. He called it "Your Physique." That modest piece of literature launched an empire.

In ensuing years, Hoffman and Weider slugged it out in bitter rivalry—each vying for the bodybuilding community's business with Weider always one step ahead. It's doubtful either of them knew that the business of muscle building was about to get an unimaginable boost from the unlikeliest of places. It was around 1940 when a playground on a Santa Monica oceanfront was attracting hundreds, and eventually thousands of spectators each day. That small strip of land became known as Muscle Beach.

THE RISE

In many ways, Muscle Beach can be referred to as bodybuilding's renaissance. The playground which had rings, a high bar and a platform was a natural attraction for young men looking to display their strength and athleticism. Before long, bodybuilders were migrating to the area to work out, debate training concepts and swap stories on the benefits of everything from goat's milk and brewers yeast to the controversy surrounding "pressing while lying on a bench!" People from miles around would come to view all the beautiful bodies. But the inhabitants of Muscle Beach offered more than muscle.

Juggling, tumbling, gymnastics, and odd lifts of strength were daily fare which provided free entertainment for the hoards of onlookers. The level of acrobatic athleticism was astounding! Human pyramids and acts of impossible flexibility kept audiences mesmerized. Besides the showmanship and the fun, the performers wanted to eradicate the stigma that muscles were just "for show" and weight training wouldn't cause one to become "muscle bound." They proved their point well. The Muscle Beach crowd advocated the weight training lifestyle as a testament to what the body is capable of accomplishing.

THE FALL

Along with the healthy bodies at Muscle Beach came healthy libidos. At a time when sexual mores were still very much puritanical, promiscuous behavior at the beach was rampant! People were discovering the sensuality of muscle.

The playful spirit hit a stumbling block when the liberal behavior started getting out of hand. The sexual acts were getting more and more blatant. The then discreet gay community was openly letting their presence be known. Scantly clad women would brazenly parade in front of the podium where the bodybuilders were performing. The crowds were getting too large to contain.

Things finally came to a head when a girl accused two of the beach bodybuilders of rape. Although all charges were dropped, the area residents were becoming embarrassed by the scandalous behavior and started complaining. The latest tawdry

allegations were the perfect opportunity for the local authorities to step in and close down Muscle Beach.

MUSCLE FOR MR. AND MRS. EVERYONE

One of the original Muscle Beach members was Jack LaLanne. Jack opened the first all purpose bodybuilding gym on the west coast. "People said I was crazy," recalls Jack. "But I proved them wrong."

LaLanne designed many of the exercise machines himself and personally worked with each gym member. The gyms proved so successful that a fellow bodybuilder by the name of Vic Tanny decided to go national and open a chain of gyms across the country. He had the right idea but it was twenty years too soon. Vic's lofty dream of profiting from bodybuilding proved to be a little too radical. The franchise went bankrupt less than two years after it opened. The novelty was wearing thin. People were enjoying the post war economic boom and getting back into the good life. The quest for bigger cars and homes replaced the desire for bigger muscles. It looked as if the fitness craze was finally over.

A NEW DAWN

Just when it appeared as if bodybuilding was nothing more than a passing fad, a new Muscle Beach had sprung up just 15 miles down the road from its original location. Its inhabitants were bigger, stronger and more muscular than anyone before could ever have imagined. There was a new electricity in the air, and people flocked from all over the world to the small town of Venice to see and be a part of this young generation of giants who in comparison, dwarfed the musclemen of just a few years prior. It was the end of an era. And a new one was about to begin.

By 1965, bodybuilding had gone "underground." The public had become bored with the ribald gaudiness of strong man acts and the pious blatherings of self-professed health enthusiasts. The political climate was changing. The Cold War was in full force and the fun loving scenarios of frolicking along the beach with glistening muscles seemed out of place with the stark political climate. The college educated younger generation valued higher thinking and social activism. Muscles were no longer in vogue. In fact, bodybuilders were looked upon as quirky odd balls who were little more than fodder for many a hackneyed comedian's night club act. The concept of building one's body was dismissed by a large faction of the population who erroneously equated muscles with a lack of intellect.

Nonetheless, there were those who realized the benefits of weight training and continued to do so. In southern California, not far from the original Muscle Beach, a cult of young men were taking the idea of muscle building to a new level. They incorporated a more analytical approach to training and nutrition. They upped the ante in terms of intensity and dedication to the pursuit of muscular development. To this new breed, muscles were no longer a means to an end, they were the end.

There became an estrangement between the mainstream and the hardcore bodybuilder. This current herd of bodybuilders didn't fit in. They were considered "freaks." And that suited them just fine. In the meantime, Joe Weider slanted his marketing to this modern day bodybuilder and all the young men who aspired to be like them. He hired the best built and best looking bodybuilders to endorse his products and presented the bodybuilder's life as romantic and exciting. According to

Weider, muscles were the way to gain popularity and success! The approach wasn't far from the very first promoters of bodybuilding. But its marketing was a lot more sophisticated.

America was beginning a space program, so keeping in the spirit of the times, Weider claimed to use "Space Age Technology" wherever and whenever he could. The word science appeared abundantly through his magazines, MUSCLE BUILDER/POWER and MR. AMERICA. The Weider training system was deemed scientific. His supplements were scientifically formulated. He even added a special science wing to his operations. Men in lab coats were pictured in advertisements for his product line. An office door with a plaque that read "Research Clinic" was conspicuously featured in pictures of the Weider headquarters. Incidentally, that door led to a broom closet.

A NEW PERSPECTIVE

There were those who took the science of bodybuilding a little more seriously. Vince Gironda was gaining a reputation among a fringe society of progressive bodybuilders, as the real trainer of champions. Gironda, with nothing more than a high school education, can arguably be called the most intelligent and knowledgeable man in the history of bodybuilding. Self taught in anatomy and kinesiology, Gironda, through insight, experimentation, observation and creativity, developed methods in training and nutrition that were not only innovative, they set the standard for bodybuilding protocol for the subsequent 40 years. In many cases, the theories he extolled are just now being fully understood. Vince's students included Larry Scott, Mohamed Mackawy, Don Howorth and many of the day's top celebrities.

What Vince was to training, Rheo Blair was to nutrition. Blair was an eccentric young chemist who was the first man to experiment with different amino acid combinations. His goal was to fit the exact ratio of proteins present in human mother's milk, which he believed to be the perfect food. Rheo Blair's theories were regarded as quackery by many of the established medical factions, but in truth, Blair was way ahead of his time. Up until that time, protein supplements were made solely from cheap soy flour. Rheo used a blend of egg, whey, and milk solids. In short, Rheo Blair invented the modern protein supplement.

MUSCLES IN THE MEDIA

Bodybuilding popularity gained its second wind when a small independent foreign film was bought by Hollywood producer Joseph E. Levine for release in the United States. Levine saw star quality in the man who played the title character. That man was Steve Reeves and the movie was "Hercules."

Reeves was the personification of the ideal male. Not only was he incredibly handsome, he possessed a physique which, to this day, is considered by many to be as perfect as a male body can be. "Hercules" was a huge success and it spawned dozens of imitations. Before long, the "sword and sandal" epics which featured notable physique stars such as Reg Park, Lou Degni and Gordon Scott had run their course.

Despite the short lived popularity of muscle movies, anyone who was obsessed with bodybuilding was still seen as an outsider. In 1973, the business of bodybuilding was losing ground. In an effort to circumvent the limitations of marketing to advanced

bodybuilders, a former TV strongman by the name of Dan Lurie began selling 110 lb weight sets to department stores and supermarkets. This attracted a mostly fleeting audience of teenagers who would take up weightlifting as a curiosity and dismissed it shortly thereafter. Nevertheless, the scheme proved quite successful and Lurie was outselling his competition. Both Hoffman and Weider's sales were down. There couldn't have been a worse time for another bodybuilding magazine to hit the market. Still, an ex-employee of Bob Hoffman took his ideals, his energy and his genuine love of bodybuilding and decided to put it all on the line by releasing his own publication. That man was Bob Kennedy and the publication was MuscleMag International.

MuscleMag started as a modest monthly publication which continued to improve and thrive throughout the years. Today, it's not only the most comprehensive magazine on the market, but it's also the longest running bodybuilding magazine to date. (Weider's magazine titles have changed throughout the years. Muscle Builder/Power was the forerunner to Muscle and Fitness.) Besides Weider, Bob Kennedy is the most successful muscle magazine publisher of all time. He's also "one of the gang." He loves bodybuilding and still maintains his enthusiasm for new and interesting theories which will more effectively help people reach their bodybuilding goals. In fact, he is the inventor of the "Pre-Exhaust" principle of training which is a staple of many a successful bodybuilder's routine. What is also unique about Bob is that he is one of the most trusted and well liked personalities in the business. Bob Kennedy not only set a new standard in bodybuilding journalism, he proved that nice guys can finish first.

THE TIMES, THEY ARE-A-CHANGIN'

In 1977, a documentary on bodybuilding hit the theaters. With virtually no backing for promotion, the film "Pumping Iron" went on to be a smashing success. It quickly became the highest grossing documentary to date due mostly to the charismatic performance of its star, Arnold Schwarzenegger.

It's fair to say that there's bodybuilding before Arnold and there's bodybuilding after Arnold. Pumping Iron launched a worldwide resurgence in the appeal of weight training and "Arnold Mania" had begun. Gyms memberships skyrocketed. At a time when movie producers declared "muscle movies" to be dead, Arnold Schwarzenegger single-handedly redefined movies, muscles and the public's perception of the bodybuilder. A muscular body was now looked upon as a work of art. The garish novelty which a muscular man once represented was replaced by intellect and aesthetics. Muscle no longer connoted vanity and narcissism. It symbolized discipline, focus, and self improvement. In other words, it perfectly matched the ideals of the time.

Arnold's fame crossed all boundaries. To the bodybuilding community, he exemplified the unobtainable goal. His massive size, along with outstanding symmetry, set a new standard. He also obliterated the misnomer of the bodybuilder as "all brawn and no brain." Arnold was sharp, witty and magnetic. He proved the American dream could indeed be a reality. Bodybuilding had found a new spokesman – one who will, in all probability, never be equaled.

DISCO AND D-BOL

Concurrent with the renewed interest in bodybuilding came a heightened awareness of drug use. John Zeigler, a doctor who worked closely with the United States

Olympic team, had discovered a way of manipulating the testosterone molecule, making it more anabolic and less androgenic and put it into a tablet form. He saw it as a tremendous tool in the advancement of physical improvement. He called it Dianabol.

Unfortunately, Dianabol worked too well. The use, overuse and excessive abuse of steroids was changing the tides of bodybuilding once again. The association with drug use was distancing the bodybuilder from the fitness enthusiast and bodybuilding was in danger of losing all the advancements it had made up until that point. The industry tried to "soften" its image. In the 1980's, aerobics, yoga, and low fat recipes replaced much of grittier bodybuilding information. Everybody was an authority. Movie stars made exercise videos. Models wrote diet books. This trend proved to be both good and bad. Good, in the sense that it introduced many more people to the benefits of exercise. Bad, in the sense that much of the information wasn't accurate. Through it all, it turned out that the bodybuilding lifestyle proved itself to be the most effective method for changing the shape of one's body.

WHAT GOES AROUND – COMES AROUND

In the ensuing years, weight training continued to gain popularity throughout the world. The once cult hobby is now recognized by leading medical authorities as the most effective method of controlling weight, staying healthy and living longer. To millions of people, it's a way of life. Bodybuilding has gone through many changes. There have been innumerable men and women who've shaped it along the way. It has also been a product of the changing tides, often dictated by ephemeral fashions – for better and for worse.

From the 1980's to the 1990's and into the new century, fads have come and gone. New theories, new apparatus and new magazines have made a splash – then were gone as quickly as they appeared. But one thing has remained – bodybuilding itself. The pursuit of a stronger, more muscular body remains because it's an integral part of human nature. Just as muscle was admired by cultures long gone, it continues to captivate another generation and will continue to do so as long as people yearn to transform themselves into something greater. It doesn't matter where you are in your bodybuilding journey, for as long as you have the desire to turn your body into the best it can be, you too are a part of bodybuilding's great history – a link in the long chain of devotees that started at the turn of one century and has led to the beginning of another.

Bodybuilding's past may not be common knowledge to a lot of people – even bodybuilders. Nevertheless, its roots are deep and it had an impact on all of us...whether it's realized or not. Many great individuals have made it possible for today's trainees to build their bodies into something that was considered inconceivable just a few short decades ago. We've reaped the rewards of their pioneering efforts. We owe a great debt to the men and women who refused to accept the negative connotations about bodybuilding which were flung their way and continued with what they believed in. It took a long time, but we made it.

Today, if you're a bodybuilder, you don't have to explain yourself. Thanks to the understanding most people have about the benefits of weight training, your intentions are well understood – and admired. Bodybuilding truly has a great heritage. Be proud of it.

THE ENCYCLOPEDIA OF BODYBUILDING GREATS

Each day, millions of bodybuilders sweat and strain in an effort to make the most of their bodies. And although even the more casual gym-goer may know of many of today's muscle stars, how many know of the men and women who brought bodybuilding to where it is today? It's fair to say that without the pioneering efforts of the iron game's ancestors, we would not have the muscle building advantages we now enjoy. As bodybuilders, we should recognize and appreciate their efforts.

It would be impossible to mention everyone who has contributed to the state of modern bodybuilding, but there are certain individuals who need to be acknowledged. In an effort to broaden the understanding of our lineage, presented is a montage of some of bodybuilding's forefathers – those who were the first, and those who were the finest. You may not be familiar with some of the names, but they've all been influential in the sport of bodybuilding as we now know it.

PAUL ANDERSON

The first undisputed strongest man in the world. Anderson was never defeated in Olympic competition. Listed in the Guinness Book of World Records as having lifted the greatest weight ever raised by a human in his 1957 backlift of 6,270 lbs.

CHARLES ATLAS

Perhaps the most famous and most recognizable name in all bodybuilding. Born Angelo Siciliano, Atlas started a mail order course with little success until 1928 when Charles P. Roman joined the company as campaign director and suggested the company advertise in comic books. The plan worked. The Charles Atlas course of Dynamic Tension sold millions of copies and continues to be advertised in comic books to this day. Some people feel Atlas did bodybuilding a disservice since his course didn't advocate weight training, even though Atlas would employ weights in his personal program. The Dynamic Tension system was mostly isometrics, calisthenics, general health information and self-empowering affirmations, making the course a precursor to today's "selfhelp" books. It can be fairly stated that Charles Atlas introduced more people to bodybuilding than any other individual.

PROFESSOR ATTILA

The first known strength coach to employ barbell and dumbbell techniques. If he only knew what he started.

RHEO BLAIR

Nutritionist who developed the original "engineered food." At a time when protein supplements were made from soy flour, Rheo experimented with a combination of milk, whey and whole egg in an effort to match the amino acid ratio of human mother's milk. When Rheo died, his formulations were discarded by his family. They're lost forever.

JOE BONOMO

Circus strongman (circa 1940) who went on to be a bodybuilding entrepreneur. His claim to fame was selling pocket books (tiny 3 x 5 booklets) at newsstands and supermarkets which remained available until the early 70's. His slogan read; "What Would You Give For 10 More Years Of Life?"

JIM CARUSO

Photographer for the Weider mags of the 60's who set a new standard in physique portraits.

FRANCO COLUMBO

Thick, dense and seemingly as wide as he was tall, Franco was considered one of the strongest bodybuilders of his time.

LOUIS CYR

Nineteenth century Canadian strongman famous for lifting 535 pounds with one finger. Cyr never lost a contest of strength but his lifts weren't officially substantiated.

DAVE DRAPER

The personification of the Malibu "beach god" – big, blonde and loving life because he had a "he-man" body. (At least that's how he was marketed.) At 6 feet, 220 pounds, the "blond bomber" was considered a giant back in the 1960's. Today at age 58, he looks better than ever! He remains an inspiration to young and old alike. Dave still follows many of the patterns he learned from Vince Gironda and Rheo Blair. He insists; "It's not because I'm old fashioned, stubborn, conservative or unaware. It's because the wheel is round and I like it that way. It works better when it's round."

DAN DUCHAINE

The first person to write on the application of anabolic enhancement for bodybuilders. ("The Underground Steroid Handbook") All steroid information that has since been released is, in some form or another, based on Duchaine's original findings. As Dan put it, he..."took steroid information out of the doctor's office and placed it on the kitchen table."

CORY EVERSON

The most popular Ms. Olympia. She held the title from 1984-1989. Muscular, defined and beautiful, Cory remains active as a model, actress, motivational speaker and exercise instructor. BEV FRANCIS...First woman to exhibit muscularity far beyond what was thought possible for a female. A bright and articulate spokesperson, Bev Francis will forever be linked with the excessive muscularity displayed by contemporary women bodybuilders. (For better or worse, depending on your perspective.)

VINCE GIRONDA

Regarded by many to be the greatest authority on the topic of training. Vince maintained peak condition well into his 50's when he also wrote a column for MuscleMag Int. Entirely self taught, many of Vince's concepts were not only ahead of their time, they are just now being fully recognized and understood. Vince had a reputation for being surly – he was the consummate "know it all." In Vince's case, however, he really did.

JOE GOLD

Hollywood stuntman and owner of the famous Gold's Gym in Venice which was featured in the movie "Pumping Iron." JOHN GRIMEK...Considered to possess the ideal man's body in the 1940's. To this day, he's the only bodybuilder undefeated in competition. He trained (heavy!) until the last day of his life. He died in his sleep at the age of 88.

LEE HANEY

Successor to Arnold's string of Olympia wins with a total of eight – the longest running hold of a major bodybuilding title to date.

BOB HOFFMAN

Early proponent of weightlifting and President of the York Barbell Company, Hoffman published Strength and Health and Muscular Development magazines. Despite his reputation as a health authority, Hoffman was known to indulge in several un-healthy practices such as smoking, drinking and keeping late hours. Even as a sick old man, Hoffman would insist he "never felt better in his life!"

ARTHUR JONES

Inventor of Nautilus equipment (the first bodybuilding "machines"). Advocated that employing a single set to absolute failure would produce superior results to traditional multi-set routines. Mentor to Mike Mentzer who dubbed the training system, Heavy Duty.

GEORGE JOWETT

Published the first monthly magazine devoted to bodybuilding entitled "Strength."

BOB KENNEDY

Photographer, writer and muscle building authority who is also the publisher of MuscleMag International, which is the longest running bodybuilding magazine to date. Bob still maintains his enthusiasm for new and interesting theories that will more effectively help people reach their bodybuilding goals. He's also the originator of the "Pre-Exhaust" principle of training which is a staple of many a successful bodybuilder's routine. Bob continues to expand on every aspect of health and betterment. He also publishes the women's publication, "Oxygen" and more recently launched the men's health magazine, "American Health & Fitness."

SIG KLEIN

An early proponent of weight training and thought to be the first person to refer to bodybuilding not as a sport but an art form. His motto was; "Exercise for shape—and strength will follow." Klein owned the first bodybuilding gym in New York City where he designed most of the equipment himself. He lived to the age of 85.

IRVIN "ZABO" KOSZEWSKI

At a time when best bodypart awards were presented at bodybuilding competitions, Zabo never lost the "best abdominals" category. He also may have won more overall contests than any other bodybuilder. In an 1997 interview, Zabo was asked how long he needed to alter his diet for a show. His answer: "Three days."

JACK LALANNE

The man who refuses to age! Jack was perhaps the most successful of the early fitness pioneers. His exercise television show was one of the longest running programs in history spanning over 20 years. To celebrate his birthday each year, he would swim across the San Francisco Bay to Alcatraz pulling a tugboat! And he'd do it handcuffed! (Just to make it challenging.) Finally, at the age of 71, the ritual stopped. "I wanted to do it," says Jack. "But my wife wouldn't let me." At age 80, Jack trains two hours a day and can still perform 1000 pushups!!! (Some guys just don't know when to quit.)

DAN LURIE

TV strongman turned bodybuilding entrepreneur. From 1950 to 1980, a boy's first 110 pound weight set purchased at the local department store was more than likely the Dan Lurie brand. As a teenager, Dan was diagnosed with having a heart murmur—a condition he reversed through exercise. That experience was the inspiration for his lifelong motto; "Health is Your Greatest Wealth."

RACHEL MCLISH

The first Ms. Olympia. Rachel personified the ultimate woman bodybuilder – pretty, shapely, muscular yet feminine. The ideal didn't last long.

SERGIO OLIVA

The Myth! And the original mass monster. Prior to Oliva, most young men began training to compensate for their lack of size. Once Oliva hit the scene, it attracted bigger men to bodybuilding. The only Mr. Olympia holder to win the title uncontested. (1968)

BILL PHILLIPS

The man who could be considered the forerunner of modern bodybuilding journalism. Phillips broke convention by openly discussing drug use in his publication Muscle Media 2000. In 1996, Phillips made an about face and decided to aim his marketing skills to more mainstream audience, much to the dismay of thousands of hardcore bodybuilders.

HAROLD POOLE

A star of the 1960's bodybuilding scene , Harold was the first bodybuilder whose muscularity was referred to as "freaky."

STEVE REEVES

With his classic good looks and perfect proportions, Reeves was tailor made for the silver screen. The movie "Hercules" was not meant for release in the United States until producer Joseph E. Levine took notice of Reeves' star quality. "The movie was pretty bad," says Levine, "but I knew I could sell it." Male muscle in the movies dates back to the silent film era, but Reeves set a new standard, which to many, has never been surpassed.

JOE ROARK

Bodybuilding historian who may very well know more about the chronology of bodybuilding than anyone alive.

SANDOW

Appearing in the wildly popular "Ziegfield Follies" of the 1920's, Sandow was the first commercially successful muscle star.

LARRY SCOTT

The first Mr. Olympia. His amazing arms are legendary.

ARNOLD SCHWARZENEGGER

Some big Austrian guy who came to the states to be a bodybuilder and was never heard from again.

CHUCK SIPES

A member of the Weider stable from the 1960's, Sipes' extraordinary overall development would give today's competitors a run for their money. He performed a

strongman act which included breaking a chain, bending a one inch steel bar, and inflating a hot water bottle with his breath until it burst!

PUDGY STOCKTON

One of the first women bodybuilders who was also a master gymnast and acrobat as well as a powerlifting champion. Now 84, Pudgy still works out with weights. She's coyly stated; "I used to total over 350 pounds, but I don't think I'll be matching those numbers anytime soon."

VIC TANNY

Member of the muscle beach crowd and the first man to open a chain of gyms throughout the country. The chain folded and Vic went bankrupt.

DR. FREDERICK TILNEY

Early bodybuilding author and exercise analyst. Helped co-write and edit many famous bodybuilding journals including works by early physical culturists such as Bernarr McFadden, Earle Leiderman, Bob Hoffman and Charles Atlas. An early advocate of nudism. (!)

JOE WEIDER

Plain and simple; bodybuilding would not be what it is today had it not been for Joe Weider. Throughout his career, Weider has published over 40 magazine titles. His IFBB Mr. Olympia contest is still regarded as the biggest event in professional bodybuilding.

FRANK ZANE

Many people feel Frank achieved the ultimate combination of symmetry, proportion, muscularity and definition. There's been bigger, but few have been better. Also a master poser, Zane won the Mr. Olympia title at a weight of 175 pounds.

ARTIE ZELLER

Physique photographer extraordinaire. Zeller conducted the majority of his work from 1962-72. His use of light and shadow has never been equaled.

JOHN ZIEGLER

The infamous, and brilliant, inventor of Dianabol, the original steroid. (And what many believe to still be the most effective steroid mg per mg) Ziegler had high hopes for the benefits of anabolics but toward the end of his life, was regretful that he didn't anticipate the potential for their abuse.

Have we missed anyone? It's very possible. Everyone has their favorite icon from the past and many of them are worthy of attention. In fact, if there's someone you think we missed, drop a line and tell us why you believe he or she deserves mention.

These are some of the greats from years gone by. We owe our respect to these people because they engaged in weight training at a time when it was scorned by the populace. They broke new ground and gave their all toward the pursuit of a better body. We owe them a debt of gratitude in that their efforts made it possible for the sport of bodybuilding to improve and to flourish. I think I speak for many of today's bodybuilders when I address these legends of the past and say; Thank you all for what you've done for us. We'll take it from here.

WISDOM OF THE AGES

Throughout history, there have been men who stood above the rest, be it by nature of their ability, their bravery, or their unique vision. They knew more. They dared more. They did more. And with each ensuing generation, the deeds of those past are examined and emulated. Those who follow and who wish to taste greatness, strive to equal the accomplishments of their ancestors while a select few whom are truly talented exceed them. Some may go as far as to say this quest to excel is the very purpose of life itself. Learn from the past, and do it better. We see it all the time, from the sports arena where records are broken to the humble household where the son achieves more success than his father. That's the way it's supposed to be.

Progress of this nature is possible due to the simple fact that the youth of any given era have a "head start." All that's needed is to tap into the well of existing knowledge. Yet at times, we lose sight of what history may teach us. We're constantly bombarded with new ideas and innovations making it easy to overlook the lessons from years past. We view our elders as less knowledgeable – less "in touch." So is too often the case with bodybuilding. Nevertheless, it's important not to forget that the bodybuilders from long ago were the ones who taught the teachers of today and you can never be sure if everything they knew made it down through the generations. There's always a chance that something's been forgotten or prematurely discarded. By taking a closer look at the perceptions of some of the games old timers, one comes to realize that they not only knew as much as today's so called experts, they had some pretty controversial opinions as well.

Many of the following statements have become truisms of our sport. Others are an interesting variation of a current belief system, while others are a lost gem of insight. Take a look at some of these quotable quotes from the sages of strength who were living and loving bodybuilding long before most of us were born and see just how well good advice holds up over the years.

(Note: In some cases the quotes may be paraphrased.)

"Exercise is King. Nutrition is the Queen. Put them together and you have a kingdom." - Jack LaLanne, 1953

"If you want to be a success in bodybuilding or anything else in life, you can't have lukewarm ambition or an indifferent attitude. You must acquire an intensity and a strong desire. That's the only way you will succeed." - Dr. Frederick Tilney, 1947

"The biggest mistake a bodybuilder can make is losing sight of what is aesthetically pleasing. Symmetry should always have precedence over sheer bulk." - Clarence Ross, 1949

"Mothers milk is the perfect food for human growth –designed by nature. The food closest to it isn't cows milk, but the egg." - Rheo H. Blair, 1962

"I've never understood why a bodybuilder would want to build huge bulbous chest muscles. The pecs should be slab-like in appearance, not bulging or hanging. This is

the result of too much bench pressing. For a manly chest that looks like a gladiator's shield, dips can't be beat." - Vince Gironda, 1969

"Train for shape and strength will follow." - Sig Klein, 1937

"Unless you're willing to really sweat, you're unlikely to achieve any major success in barbell work. Great lifters and physique men are made, not born. They are self made, via their own diligent, grueling efforts." - Bradley Steiner, 1973

"Squats aren't so much a leg exercise as they are a gluteus maximus movement. It's best to substitute hack squats for standard squats or you'll wind up with wide hips and a big ass!" - Vince Gironda, 1972

"The most effective routine I've found to expand the rib-cage is the old standard squat-pullover combo. Five sets of heavy deep-breathing full squats supersetted with bent arm pullovers will enlarge the ribcage greatly." - Dave Draper, 1966

"Talk all you want about arcane bodybuilding theories. I'll be in the gym. It's leg day" - Dave Draper, 1999 "Just because the AMA was wrong about some things regarding steroids doesn't mean they were wrong about everything." - Dan Duchaine, 1998

"Just imagine if we could solve the mystery of life sufficient to extend man's life expectancy to reach the century mark. What wonderful progress the human race would make in everything that is worthwhile. I believe the best tool we have of achieving that goal is barbell training and proper eating." - George Jowett, 1947

"Train – don't strain. Don't leave everything in the gym. Save some energy for living." - Bill Pearl, 1974 "A sound mind in a sound body." - Aristotle, 345 BC

"Drink a gallon of Half and Half every day and you'll grow like a weed!" - Larry Scott, 1967

"I believed Dianabol had great potential, but seeing the way it's been abused, I'm sorry I ever invented it. All those young lives, destroyed." - John Ziegler, 1972

"I'm amazed that weight lifters aren't more concerned about the air they breathe. For maximum results, always train in an environment of the purest air possible." - Peary Rader, 1959

"Once a young fellow gets a barbell set and begins training, he's happy. He gets stronger, finds his legs have more spring to them and his friends comment on how splendid he looks. All is well in the world!" - Earle Leiderman, 1944

"The best way to never worry about getting into shape is to never get out of shape. - Zabo Koszewski, 1962

"If you stick with any routine for too long it will go stale. You must keep changing things around if you want to keep making progress." - Harold Poole, 1966

"Bodybuilders today over-think too much when it comes to eating when they should be following their instincts. If you feel like eating a steak, eat a steak!" - Mickey Hargitay, 1969

"The most universal complaint seems to be that of an aching back, yet almost any back problem can be alleviated through exercise. The good morning is one of the best movements anyone can do to prevent a lifetime of back ailments." - John Grimek, 1950

"The sun is life! Get outdoors and get healthy." - Bob Hoffman, 1961

"If you want bigger arms – squat! Squatting makes everything grow." - Sergio Oliva, 1967

"If you have a lagging bodypart, train it first when you're fresh. And unless you're willing to train in a 100 percent positive matter, it's a waste of time. That's the secret." - Vince Gironda, 1968

"The truest success is but the development of self." - Charles Atlas, 1939

"I could never find a better biceps exercise than dumbbell curls on the incline bench, so after a while that was the only one I did." - Steve Reeves, 1966

"Because I suffered a heart murmur I was told never to lift weights, but I didn't listen. I went on to be a strongman and today I'm still going strong while the doctors who advised me are long dead." - Dan Lurie, 1999

"Although it is presently shunned, I believe someday weight training will be used in all sports to improve performance." - Joe Weider, 1947 (Good call Joe!)

"No one knows why, but exercise physiologists have stated for years that it's the negative portion of an exercise movement which produces more soreness and more growth and I believe this to be true. " - Arthur Jones, 1960

"Great strength is a priceless possession, so plan your workouts so that you won't be interrupted. Never miss a workout. Set yourself a goal for each session. Keep your mind focused on your training. Make each movement mentally as well as physically." - Chuck Sipes, 1964

"By Pre-Exhausting the muscle you force it to work harder in a shorter amount of time. You also reduce the risk of injury." - Robert Kennedy, 1981

"What works for one bodybuilder may not work for another. Don't blindly follow an idol's routine. Try everything and decide for yourself what's best." -Alan Stephan, 1958

"If you want good training advice, don't ask the biggest guy in the gym. Ask the guy who's made the most improvement. " - Don Peters, 1966

"No man has the right to be an amateur in the matter of physical training. It is a shame for a man to grow old without seeing the beauty and strength of which his body is capable." - Socrates, 400 BC

"I'm retiring from competition, but I'll never stop bodybuilding. It's the greatest sport." - Arnold Schwarzenegger, 1976

Profound words indeed. As you can see, these somewhat ancient anecdotes are quite poignant and at times, prophetic. These men knew the truth – it just took the world a while to realize it. And although opinions varied, as they always will, one thing is certain – men of wisdom will make observations which help pave the way for all of us. Listen...and learn.

THE LAST WORD

Someone once tried to discount the benefits of bodybuilding to me by suggesting it took "insane devotion" to which I replied, "Nah, I now work out three or four times a week for less than an hour."

He then said, "Yeah, but I like eating what I want." I countered, "So do I. Exercise allows me to do that."

He then said, "But I like to knock back a few beers every night" to which I answered, "I'll take a drink now and then but I really don't enjoy overdoing it."

Frustrated by my lack of fluster from his remarks he snapped, "Why in the hell would you want to lift weights?" I thought about that for a second and then said, "So I don't look like you."

That's what it comes down to. If you want it, you have to work for it. But it does take willpower. Willpower – there's a word you don't hear too often any more. Maybe that's why there are so few people who succeed and a whole lot who are in therapy.

Bodybuilding builds more than muscles. It improves your health, your confidence and your sense of well being. It teaches focus, commitment and determination. It develops mental acuity. It's hobby, sport and meditation rolled up in one. Yet for all its attributes, no one needs to hand his or her life over to the gym. You don't have to beat yourself up by overtraining. You don't have to spend a fortune in worthless supplements. You just need to know what works and what doesn't work.

Now you do.

If you put your mind to it, you can have a great body, and a great life. And that, my friend...is the truth.