

# Mike Mentzer's

## 1998 Bodybuilding "Underground" Seminar

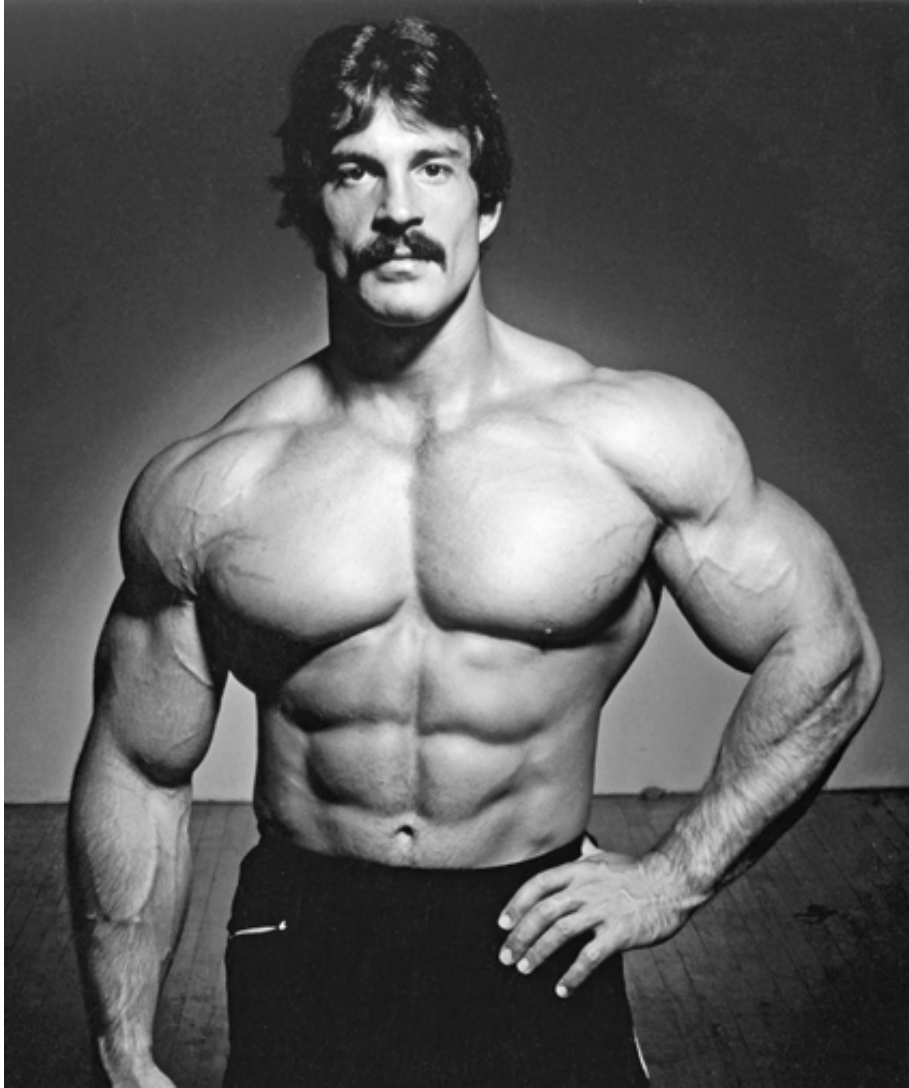
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Michael John "Mr. Heavy Duty" Mentzer  
November 15, 1951 – June 10, 2001

*"It is only within the context of having properly developed your mind that you will be able to truly enjoy the achievement of your material values, including that of a more muscular body." -Mike Mentzer*

I make nothing from the publication of this text. With Mentzer's death, and the owner of Mentzer-Sharkey enterprises being now retired, I have no compunction, nor do I have even an iota of fear, in publishing this text, because it is done in the spirit of preserving Mike's message, which is an open and endearing appeal to objective reason within the realm of bodybuilding – a realm that, unfortunately, suffers from a dearth of objectivity and logic.

What follows is as true a transcript of Mike's spoken word as possible. However, the words of this seminar transcript are not Mike's final statements with regard to exercise, specifically high-intensity training. The interested reader would be wise to find a copy of Mike's final book, titled *High-Intensity Training the Mike Mentzer Way* (PDFs can be found online, or it can be bought outright for around twelve dollars), co-authored by the great John Little. That book, one may note, borrows a great deal of its content from this seminar. Mike's work was constantly evolving throughout his years as a bodybuilder and personal trainer, with his later works perfecting what had been written in earlier ones. Mike's last book, *High-Intensity Training the Mike Mentzer Way*, published literal days after his death, represents his final testament regarding his greatest contribution to those who would heed him – the logical truth and pragmatic efficacy of the theory of mass muscular gain called high-intensity training.

Yet Mike's wisdom, distilled over his years of dedicated and intense study, was not relegated to the practical aspects of bodybuilding alone. In the literal translation of the word, Mike was a *philosopher: a lover of wisdom*. Mike was brilliant beyond measure, harboring a mind which can, in truth, be said to have been honed to a point most sharp by the precise and consistent application of man's greatest faculty: his reason. Mike's scrupulous exercise of reason made itself manifest in the sharp definitions and sheer mass of his Herculean physique, the only one to have ever achieved a perfect score in the Mr. Universe contest. As John Little put it in *High-Intensity Training the Mike Mentzer Way*: "Here, finally, was the embodiment of the ancient Greek and Roman ideal of *mens sana in corpore sano*—a healthy mind in a healthy body."

This published transcription of the original seminar recording can be found on Github (<https://github.com/Npoubko>), or by searching for its title on The Internet Archive or Library Genesis.

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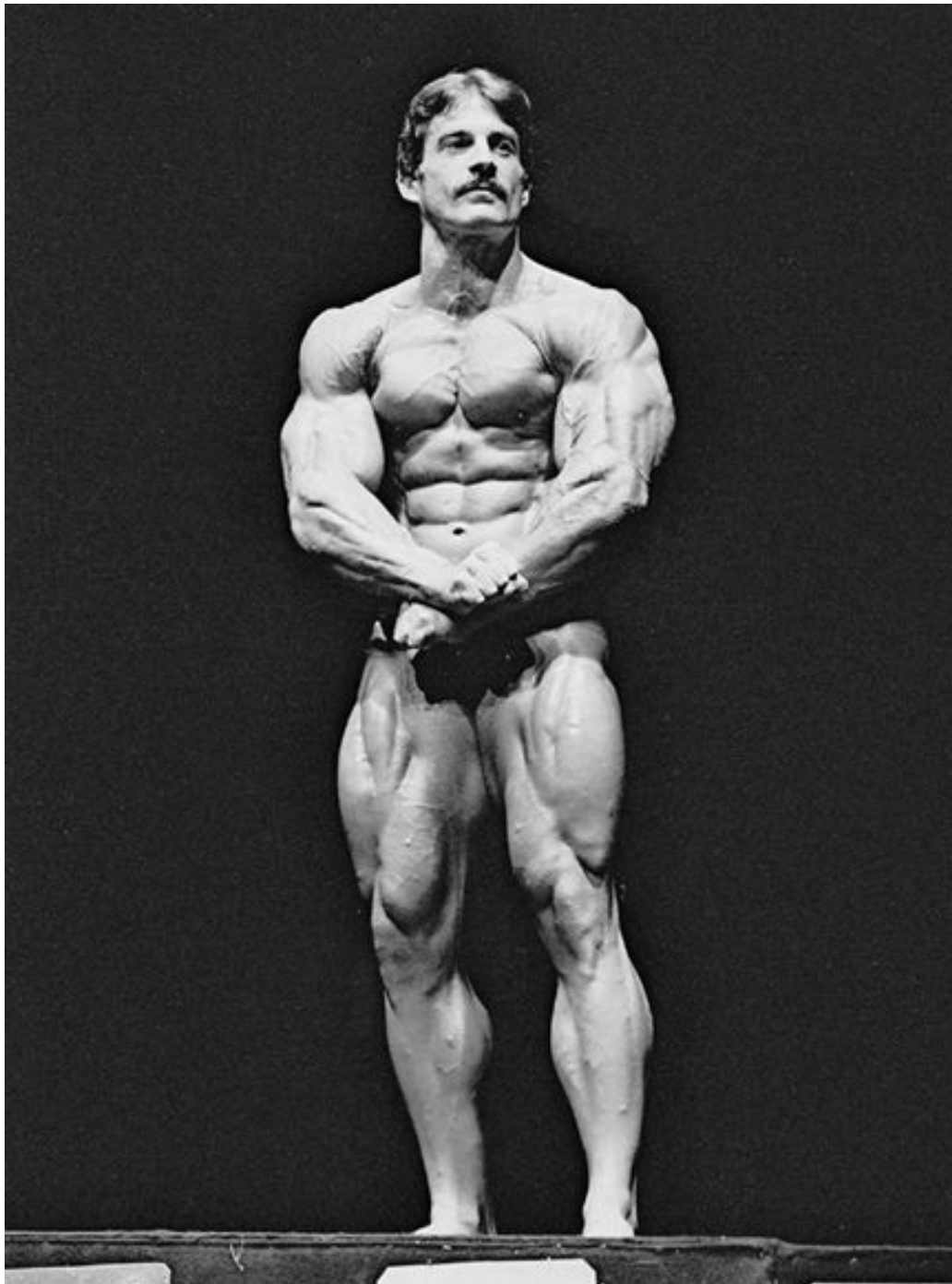
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*“The purpose of art... was to set man’s soul on fire and never let it go out... Art...is the concretization of metaphysics (an individual’s abstract estimate of man and of existence)... art is the indispensable medium for the communication of a moral ideal... This... [explains] the historical connection between art and religious morality. Men couldn’t be expected to read exhaustive philosophical treatises explaining all the virtues one was expected to practice; this would represent too lengthy a chain of abstractions; too much for anyone’s rational faculty to hold in focus. The function of art was to concretize these abstractions in the personification of a human moral ideal.*

*There are two fundamental ways of viewing man: Man the exalted hero, who stands noble and tall, proud of his ability and willingness to be a creative, productive innovator, or there was man the evil villain, who relied on the use of physical force to get what he wants... I would make the effort to use these abstractions that came from religion and pertained to the supernatural, and redirect their emotional counterparts to their proper place here on earth—to Man the Hero.” -Mike Mentzer, *The Integrated Man**

## Part 1: Introduction

Seminar recording start/end time: 00:00 – 23:30



*“Pain and suffering are always inevitable for a large intelligence and a deep heart. The really great men must, I think, have great sadness on Earth.” -Fyodor Dostoevsky*

Let me start by indicating that there's going to be three parts to this seminar:

- An introductory 10 minutes where I kind of get you mentally warmed up, if you will, for the theoretical material to follow.
- Then there's gonna be a listing of an actual concrete training program.
- And a break, whereby, or whereafter, Brian Johnson's going to do a practical.

Let's just get started here with the introductory material. While I will be providing you today with an actual training program – actually later in the seminar – I want you to know from the outset, ladies and gentlemen, that my purpose today, my primary purpose, is to teach something meaningful, of value, that is, about a logical approach to the subject of productive bodybuilding exercise. Logic is, after all, man's method of gaining knowledge, which is his means of survival and is therefore of most fundamental value in human existence.

Man is not an instinctual creature as you've been reading about in, especially, the Weider magazines. Instincts cannot coexist in a creature whose fundamental, defining, characteristic is his conceptual or cognitive faculty, which can only be used by a volitional choice. Now don't let some of these words frighten you; you came here to learn something today, hopefully of value. Where words are new, don't be afraid, write them down and look them up later on. You might find that they will prove of great value in your future thinking and learning.

Instincts, audience, are a form of knowledge that is hardwired into animals, and therefore guides them not volitionally, by choice, but automatically and unerringly.

Man is a conceptual being, who gains and uses knowledge, only through an act of choice, a process of thought, or a volitional, cognitive effort, as stated previously. And it is because one must exercise is power... effort of will to initiate and sustain a process of thought that many just refuse to do it. They apparently find the effort involved, too much or not to their liking.

As a humorous side note, here, years ago, when I was working for Joe Weider out of his office in Woodland Hills, one of his top editors and I were joking about the Weider instinctive principle, when my cohort had me cracking up, saying, "Mike, people were thought to follow their instincts, here, they wouldn't lift the weights at all, they would defecate and urinate on them."

Wasn't that funny, huh?

Having been brought up in an anti-rational culture, many are not taught to value logic and thus never achieve what I refer to as intellectual self-sufficiency, that is, the ability to think logically, rationally and to judge independently for yourself. What's the point, ladies and gentleman, of having muscles that would do credit to an adult gorilla, when you can't even think effectively about a subject like bodybuilding, which is of passionate concern?

Most people have uncritically accepted faith as a means of knowledge. Faith, in fact, is the opposite, or the antithesis of reason; it is literally the blind acceptance of ideas for which there is no sensory proof or rational evidence. Along with the idea that you should "judge not", you also hear the other admonition "keep an open mind". The idea that one should not judge, or



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that he should keep an open mind, is actually very dangerous, literally. It is used to keep you confused by suggesting it is a virtue to... plausibility to everything.

Obviously, not everything can be true. Since some ideas you read about contradict other ideas, how can they all be true? Simple logic. And remember, that's what my purpose is here today, in addition to providing you with an actual training program, I'd like to teach you at least something of value about a logical approach to bodybuilding. No, you should not be concerned with developing an open mind, but an active mind, one that treats ideas critically, seeking to distinguish truth from falsehood.

The approach of most bodybuilders to training from the start amounts to little more than a blind leap into the dark. Throughout life, we all, you and I, everybody, were inundated by innumerable theories on every subject, from religion to philosophy, to politics to the healing arts, nutrition and bodybuilding science. And because so few in our culture were taught to think rationally, or to judge critically, most of us are left disconcertingly confused, when confronted with the necessity of making intellectual choices, such as which training theory to employ. In fact, how many bodybuilders, how many people do you know, honestly, possibly including yourself – and I was this way at one time – how many people are not confused on the subject of how to approach bodybuilding exercise?

You were confused? Good for you. You're one of the rational few.

In fact, I did realize, I was like this when I was in my late teens; most symptomatic was the notion that if something was printed, it had to be true. I learned later that my notion was illogical, as of course not every idea can be true, as I said earlier, because so many of them conflict with and contradict other ideas. In fact, it was Arthur Jones, who many of you know, or know of, who divested me of that bit of ragtag illogic, when he literally barked at me (and that's the way he talked to everyone), "Mike, goddammit, just because something is printed doesn't mean it's true! In fact, 90% of what is printed on all subjects is outright hogwash." And now, some 25 years later, some considerable thought, a lot of study and experience later, I realize that Mr. Jones was in fact being charitable; it's not 90% of what is printed on all subjects is outright hogwash, it's closer to 98%, literally, 98% of what you read. Remember, we do live, that is, you and I, as Canadians and Americans... we live in a semi free country... can you imagine all the editors and publishers and writers of all the magazines stay up burning the midnight oil, searching the truth in everything they write? Of course not.

Understanding this, audience, is a first step towards developing your critical ability – your critical ability. The concept of critical ability is new to some people; like I suggested earlier, you're here today to learn. Just because you hear new concepts, new terms, things that might be unfamiliar, don't just bypass them or let them scare you, write them down and think about them later and incorporate them into your thinking.

As much as this seminar is about the human body and it's improvement, this seminar is actually more about the human mind and its improvement. Why? Why would a seminar on bodybuilding also be about the mind? Because obviously, logically, you don't have to be a genius, we all know this on some level of awareness. Human intelligence, not instinct, is what makes it possible to understand anything at all, including exercise or bodybuilding science; and

that which is most interesting to all of us, namely, us: we the member of the species, man; as someone once said: the Divine spark in the great chain of being, we human beings are the highest of all living species on Earth.

It has been averred all too often by many, even those in the bodybuilding field, that we bodybuilders are dumb and stupid, which simply isn't true, as evidenced by the number of phone calls I receive every single day, all day long, 7 days a week, 365 days a year. I receive phone calls every day from people from all walks of life, including physicists, doctors, chemists, stockbrokers, students, tradesmen, truck drivers – people who are obviously very productive, quite bright and intelligent, who also just happen to be bodybuilders.

I will not talk down to you today on the assumption that you, the audience, so lack intellectual depth that you are incapable of exercising the mental effort required to integrate knowledge of a higher order. Nor will I insult your intelligence by expecting you to accept anything that I, Mike Mentzer, have to say, merely because I won a handful of bodybuilding contests. So what, big deal? We have scores of bodybuilders who have won more contests than I have, and they couldn't even spell or define the word “exercise science”. It is only on the basis of grasping the logic of an argument that one should agree as to whether or not it's true.

Nor will I bore you with the type of intellectual pabulum, or baby food, you've read so often in some of the muscle magazines. Just in case you hadn't noticed, the vast majority of articles written on the subject of training consist of little more than a series of arbitrary, Biblical-like commandments: “Thou shalt perform 3 sets of this exercise and thou shalt perform 5 sets of that one.” Why? Never any reason – blank out, no logic, no explanation. You see, audience, the realm of the intellect, the human mind, which again, is the central focus of today's talk, is much more demanding than the average bodybuilder writer realizes or recognizes; and, formulating a valid, non-contradictory theory of training requires knowledge, not just of human physiology, but man's method of gaining knowledge, again, logic. A mere passionate discharge of the arbitrary contents of one's subconscious onto a piece of paper is just that: intellectual vomit.

As a man of reason, I act on the basis – or I seek to act only on the basis – of understanding the reasons for doing something at all, which is the way all human beings should proceed; and that, once again, is what this seminar is about. I'm not here just to give you another training program and expect you to blindly follow it. Would that be worth the 40 bucks and the time you expended to come here today?

This seminar is about a reasoned, principled, logical approach to the subject of productive bodybuilding exercise, one that can be understood by anyone, everyone willing to exercise the required mental effort. I presume, after all, that you came to Mississauga today because of your enthusiastic desire to achieve your muscular potential, maybe for personal reasons, to be Mr. Ontario, the Canadian champion, there might even be those in here who aspire to be Mr. Olympia. And, most important, that you, the audience, already understands that the basis of a rational, logical approach to bodybuilding, or any other arena of human endeavor, is the recognition that only the specific, appropriate knowledge can lead you to engage in the purposeful action required to successfully achieve a goal. In fact that's my favorite statement in the whole seminar; I'm going to repeat it: the basis of a rational, intelligent, logical approach to exercise, or any other arena of human endeavor, is the recognition that only the specific,

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appropriate knowledge can lead you to engage in the appropriate action required to achieve a goal.

We all kind of, sort of know that on some level of awareness, but if you don't explicitly state it periodically, it kind of loses impact in your own thinking. You're here to gain specific knowledge. No, the material in today's seminar is not infinitely complex, but it's not intellectual pabulum either. I am asking you, cast aside all your other concerns for the next few hours, get intense mentally, focus on the logic of my ideas and once and for all clear up any and all confusion. That won't be a problem for you since you're already un-confused, and that's fine. I'm not laughing at you. It's no fun being confused, is it; or uncertain? Then, audience, you will be able to proceed with the greatest power possible to a human being: the power of certainty; one of my favorite words, intellectual certainty. Not muscular power, but the power of certainty, which can only be gained when you truly grasp, fully recognize the power of ideas, the realm of the intellect.

There does exist a viable intellectual discipline, exercise science. In the next section – remember, this is merely introductory – I will explain the logically interdependent hierarchy of ideas that makes up the context of bodybuilding science, again, so that you, the audience, will leave here not with just one more exercise program, but the ability to think more clearly, logically about the subject; and go on to confidently and successfully achieve your bodybuilding goals and any other goals. In fact, while learning to think logically about bodybuilding, you'll learn something about the nature of thought itself, which you can then extend to other areas of life, and lead a more rewarding and more fulfilling life overall.

Before concluding this introductory section, audience, I'd like to address one important point that will serve, in fact, as a direct prelude to the next part of this seminar. And it has to do with the near-universal confusion that exists with regard to the fact that there can only be one valid theory of proper, productive bodybuilding exercise, or any other subject for that matter. This subject is centrally responsible for most of the failures in bodybuilding, and I can tell you unequivocally, unequivocally without any slightest doubt or uncertainty, more bodybuilders fail to achieve their goals than succeed. Most bodybuilders, probably most of you in here like I did at one time – I'm not putting you down – wherever you're at with your thinking, most of you, I was there at one time too; but I'm a little bit older than most of you and I've had more experience, I've learned a lot in the last 20 years.

Most bodybuilders make the mistake of approaching the subject of bodybuilding training with the idea that all theories have some merit or are of equal value, then they waste precious, precious time frantically looking into all these different theories, hoping that somehow, someday, someday, they'll find one that works. And as a result – literally, I'm not exaggerating here for effect – I talk to bodybuilders everyday from all over the world, literally every day, all day, 7 days a week, 365 days a year, and I do a lot of seminars. The most salient characteristic of the vast majority of bodybuilders I meet is that they are confused and the confusion results in their not achieving their goals. Most bodybuilders literally fail to achieve their goals, which is why they're perpetually asking questions of anybody and everybody they can, they come to seminars all the time – you know what I'm talking about. Again, how many bodybuilders do you know who are not infinitely bewildered, disconcertingly confused? At least 99%.

In fact, it cannot possibly be true that all, or many, or even two training theories are of equal merit. You have to keep in mind here what a theory is. A theory is a set of abstract principles, which purports to be either a correct description of some aspect of reality, and/or a guide for successful human action; and there is only one reality. Is there anybody here who – there probably is – is there anybody here who would like to make the point that there's more than one reality? Well, good, we have at least a semi-rational audience.

Since there is only one reality, come on, people, obviously, there's is and can be only one valid theory of any aspect of reality. Just as there is only one valid theory of epistemology (which is the theory of human knowledge), mathematics, electricity, chemistry, relativity, the theory of evolution, likewise, there is and can be only one valid theory of productive bodybuilding exercise, and it just so happens to be the theory of high-intensity training.

I don't have any weird emotional investment in this thing; it just so happens that the one, valid, logical, non-contradictory – in fact, it's the only theory, the theory of high-intensity training is the only theory that exists qua theory, which means “as the theory is defined”, a set of abstract principles logically connected, which purports to be a correct description of some aspect of reality. The science of exercise, ladies and gentlemen, like the science of medicine, is based on an understanding of the principles of Human physiology, with a capital H – that means they apply to everybody; after all (unless Pollack<sup>1</sup> and his people are here) I would say we're all members of the species, human being – which of course are universal, that is, applicable to all human beings. If every human being's cells, muscles and organs were constituted and functioned differently, medical science couldn't exist as a viable discipline, doctors couldn't make diagnoses, perform surgeries or dispense medicines.

It is this precise fact, the fact that the principles of human physiology are obviously universal, is what makes it possible for me to state with absolute, utter, total certainty, that there is only one valid, logical theory of productive bodybuilding exercise, i.e., one best way to train. It is not my mere opinion, that every human being – literally, every human being – requires intense training to stimulate growth; it is a well-authenticated fact beyond debate; and because the magnitude of the toll demanded by high-intensity training is very great, such training must be not... cautiously regulated, it must be hyper-cautiously regulated with regard to volume and frequency, so you don't overtrain.

Overtraining, remember, is not just a mistake: it's the biggest mistake you can make. Overtraining is literally that which prevents you from achieving the desired result: increases in strength and size; and I'll talk more about that later.

The major philosophic... of this seminar, dear listeners, is that without a firm, intellectual grasp, of, and guidance by a valid theory, one cannot know that he's on the right course. A sane individual, setting out on a trip from New York to Los Angeles will consult a map. A map,

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<sup>1</sup> Pollack, as Mike names here (this is how his pronunciation in the recording sounds), seems to be referencing Robert Pollack, PhD in biological sciences and author of many papers regarding evolution. Pollack is a devout anti-racist writer and believes that race is a figment of human imagination. As Mike refers to him, there is an implication that Pollack believes we are members of something other than the human species or are otherwise not held to the same physiologic standards as individuals sharing a common physical composition. However, it is possible that Mike said the last name Poliquin, which is in reference to the weightlifting coach, Charles Poliquin, who Mike disputed with on training method and competed with in publication. See footnote 2.

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interestingly enough, is a theory, a theory about how to get from point A to point B. Without the map, he would get lost, lose whatever certainty and motivation he may have had and terminate his effort along the way. Knowledge, like any other value, has to be gained through a volitional effort, an act of choice.

Anyone smart – anyone here today, and it's all of you – smart enough to learn the ABCs, write a sentence or read a book, can, with sufficient effort, integrate the knowledge he gains as a result of today's seminar.

Now we get to the intense workout.

## **Part 2: Bodybuilding Fundamentals I**

Seminar recording start/end time: 23:30 – 57:05



*“If someone can prove me wrong and show me my mistake in any thought or action, I shall gladly change. I seek the truth, which never harmed anyone: the harm is to persist in one’s own self-deception and ignorance.” -Marcus Aurelius, Meditations*

Recently, one of my phone consultation clients expressed considerable astonishment, that he had been able to realize so much uninterrupted progress utilizing Heavy Duty, high-intensity training. And I explained to him: that should not be a surprise, there's no mystery here, that people have been growing muscles beyond normal levels for tens of thousands of years, that we live in a knowable, rational universe of clear-cut identity, guided by one set of never-changing principles, and that the cause and effect – this is a key concept for those who want to think logically about exercise or anything else, cause and effect – the cause and effect relationship between intense exercise and muscular growth has been understood for at least decades by a few people at least, even though the vast majority of so-called experts in this field have failed to grasp it. I concluded by pointing out to this individual, that it is reality, and its laws – the laws of nature, you know – that dictate the causes which must be enacted to effect the buildup of muscles beyond normal levels; and that once these causes, these natural laws are clearly understood, in reality, the task of developing bigger muscles, while of course requiring high-intensity effort, is really rather simple.

Nature also dictates what mental causes – we were talking earlier, a second ago, about physical causes – nature... also dictates what mental causes that must be enacted to effect an intellectual understanding of any subject or issue. You must first recognize that all human knowledge has a nature. Your body has a nature, right? Your brain is a part of your body. Your mind is a part of your brain. Your brain, and the knowledge therein has a nature, literally.

Human knowledge, people, is hierarchical in structure, with a base of fundamental principles or ideas, which must be first grasped before moving up the logical ladder. This may be most readily observed, of course, in the field of mathematical science. Now, remember, we're here today to talk about exercise science, but we're talking something here, in the abstract, about the nature of knowledge itself. In mathematical science, or mathematical knowledge, there is a base of fundamentals, which, of course, are what? Addition, subtraction, multiplication and division. It is only on the basis of first grasping these fundamentals that one may then deal efficaciously with derivatives such as algebra and calculus.

The major reason why you, or so many bodybuilders are confused, is that you failed to take the time to gain an understanding that the context of knowledge, which constitutes bodybuilding exercise science, has a base of fundamental principles. The major reason why most bodybuilders are confused is that they don't understand that the context of knowledge, which constitutes bodybuilding exercise science, has a base of fundamental principles. If you want to learn to think logically about exercise, which, again, is what I presume you came here for, this is the first thing you have to logically understand: that the body of knowledge constituting exercise science has a base, a foundation of fundamental principles – and it ain't that difficult (you might write this down for your own edification) – which relate to the issues of intensity, volume and frequency.

Curious, I told you, I talk to bodybuilders every day; every single day. I hear bodybuilders asking questions about training that are something like the equivalent of algebra or calculus, when they have not even grasped the simple  $2+2$  is  $4$  of bodybuilding. How the hell are they going to answer the higher-level questions, when they can't even figure out the simple  $2$  and



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2 is 4? The following, what you're about to hear, will help you gain that knowledge, a logical perspective, as I said earlier, on the subject of productive bodybuilding exercise.

Audience, let's approach the subject of what makes muscles grow beyond normal levels, like a good exercise scientist might. Now, you have to use your imagination here because I have yet to meet a good exercise scientist, so just use your imagination a little bit.

Having observed innumerable bodybuilders and strength athletes workout, the alleged good exercise scientist concludes that there has to be something about their workout – he looks at these guys training – there has to be some variable, some element, something he can identify and say, “Hey, look, this particular thing, that's what makes muscles grow”, right? Why do you lift weights? There has to be something about the lifting of weights, something you can... identify and say, “Hey, this is the growth stimulus!” Logical? What could it be? What is it about the workout that causes the muscle to actually grow? How does he find out? Where does the good exercise scientist launch his investigation?

Well, the most likely place is to start by looking at one of the more readily observed qualities, or attributes, about the things that exist in reality, which is quantity, the volume, the number. In this context, of course, the exercise scientist would concern himself with the number of sets being performed. Since people who perform no weight training exercise possess little muscles, or muscles of normal size, and those who do lift weights possess larger muscles, maybe, just perhaps, maybe growth stimulation is directly related to the volume of the exercise.

In order to test his hypothesis – or hypo-thesis as Arthur Jones pronounced it, I'm not sure what the correct pronunciation is – the hypothesis, in order to test his hypothesis, the good exercise scientist observes numerous individuals training over a period of time, during which the volume of the exercise grows progressively greater and greater. But something is terribly wrong. Beyond a definite limited point, increased volume results in a complete lack of progress, and, any further increase in volume, the subjects inevitably, invariably, in every case, grow weaker and their muscles atrophy. So, what may have initially appeared obvious was not so obvious; the growth stimulus cannot be directly related to the volume, to the quantity of the training effort. Or, if it was, the training subjects who trained the most would have the biggest muscles.

While the notion that “more is better” is attractive in its simplicity, it just doesn't work. Let's look for a moment, audience, let's take a moment and examine the implicit logic in that idea. “More is better” means literally that. “More is better” means what? “More is better” means fucking more is better! You can't fail, there's a built-in guarantee. It's so obvious to certain of us in here we wonder why the rest of the world can't grasp it. “More is better” means “more is better”. There's a built-in guarantee – you can't fail. If 20 sets are good, if 20 sets give you good results, then why stop there? 40 will give you even better, and 80 even better still and 120 better still. Just keep training on to infinity, just take off of work for 3 months, train 18 hours a day, and in 3 months you'll look like Dorian Yates – we'll all succeed.

As I'm wont to say in many of my recent articles, the science of productive bodybuilding exercise, for Chrissakes, is not infinitely complex, but there's a lot more to it than the childlike notion of Joe Weider's, “more is better”. For Joe Weider, more money is better than less, then in his brilliant thinking he concludes, well, since more money is better than less, more training has

to be better than less. In fact, that one idea has actually hurt Joe himself, and the whole bodybuilding, fitness and nutritional supplement industry. More bodybuilders quit training than stay with it, because they try the idea “more is better”, and after 2 years of no results, they say, “I’m either morally deficient, I’m suffering from some, who knows what, I can’t make it, I’m just gonna give up”.

The most important issue in bodybuilding is that there is a right way to train. Only if people trained properly and made progress, or the people involved, people like me, selling books, doing... people selling supplements, are we going to make more money, if half the people who get involved in bodybuilding every decade fall out the next decade? We gotta keep drumming up more business, right?

So there you are, the obvious conuity. The monumental absurdity of the volume argument, all wrapped up in a singular, childlike, stupid notion, that “more is better”. As I tell some of my phone clients, the idea “more is better” only has validity when it comes to money and pretty girls; it has very little or nothing to do with exercise. The idea that “more is better” is erroneous, illogical, irrational, non-productive, counterproductive, and on a lesser level, stupid, inane, absurd – it’s ridiculous.

Look about you, audience. In the gym, everyone who engages in exercise or athletic training of any sort performs at – of course – has to do a certain amount of volume. But, if volume was the key in and of itself, the stimulus responsible for triggering growth, those who perform the most exercise, in every case, would have the largest muscles; and we all know that ain’t true.

I know people who train for hours – literally hours a day. One phone client trained for 7 years using, every variation of the volume approach from Weider to Serious Growth to whatever, and he did get a little bit stronger, but even his girlfriend said, his name was Ollie, said, “Ollie, you just have not built any muscle in 7 years.”

The vast majority of bodybuilders do fail to achieve your goals, and probably, I would guesstimate that 99% of you in here are frustrated too. How many of you in here, looking back over the last year, or two or three, adding up the hundreds, even thousands of hours of blood, sweat, and tears, can honestly say that you got a proper return on your investment?

One person. You must be a high-intensity trainer. Yeah, that’s two of you – two rational individuals. But we’re not giving up on the rest of you, even though we seem like pricks, we’re very loving people. We do care about the future of the world, we’d like to have you be part of it.

Yes, everyone and anyone who exercises, whether it’s aerobically, anaerobically, athletically or otherwise has to perform some volume of exercise, but it may be any volume. As a side note here, later in my talk, I logically demonstrate that. in fact, the issue of volume, number of sets, is a negative factor - literally true, I’m not speaking metaphorically. The issue of volume, number of sets, in bodybuilding exercise science – and Brian’s one of the few people who really understands this – is literally a negative. Even one set, doing one set represents a negative factor, but we’ll go to that later.

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The vast majority who exercise typically do so for 1 hour. Why 1 hour? Well, most of us conveniently schedule our lives by the hour, we watch Laverne and Shirley by the hour, we get paid by the hour, we go to the psychiatrist by the hour. Therefore, it's only logical: let's train by the hour. Of course, I'm being facetious. Most people do train by the hour, yet such doesn't invariably result in the same, or similar, or any, muscular mass increases.

So, where do we now turn to discover the variable? What is that one thing about the exercise – the workout – where do we now look to discover the element responsible for stimulating growth? Since I just concluded – and you may agree – that it is not the quantity, or volume, there is but one place left to go. Not quantity of exercise, but what? The quality, or the intensity of the exercise.

Let's assume, hypothetically, that – again, hypothetically, this – any one of you here could curl a 100 pound barbell for a maximum of 10 reps to failure. And by that, I mean you couldn't possibly do 11 reps, the tenth rep itself requires a maximum effort, where you're gritting your teeth, you're shaking all over, you barely get the bar up. Obviously, the first rep of that set would be the easiest – who would deny that? The first rep would be the easiest, or we would say more technically precise, the first rep would require the least intensity of effort. That first rep does fatigue you a little bit, however, even if only slightly; that's why the second rep is always harder. Whereas at the first rep may require, literally, on the order of 8 or 10 or 12 percent intensity of effort, the second rep, you see, may require 15 or 20 percent intensity of effort. The second rep fatigues you even further, of course, and the third rep is harder still, requiring a more intense effort than did the second. Now, I'm not going to belabor this: you know that's how it goes with each successive rep – each rep is harder than the last, each successive rep requires a more intense effort. The key concept is intense. Until, finally, we get to the last possible rep (in this hypothetical situation, the tenth rep to failure), again, where you're trying as hard as you can. That would be the only rep where we say it requires literally 100% intensity of effort.

My question to you is this: which rep of that set, obviously, would be the most – I shouldn't use the word obviously, because it's like I'm leading you there. Which rep of that set would be the most productive in terms of stimulating an optimal size and strength increase? The first rep, which is the easiest and least intense, or the last rep, the hardest one, the only rep requiring 100% intensity of effort? The last rep.

Now, I've had some people in the past say, "the first rep", because they were anxious, or they didn't have normal, intact functioning brains. And that's okay, because some people aren't born with normal, intact functioning brains. Yes, of course the last rep would be the most productive, not the first rep. In fact, if you could curl – again, hypothetically – a hundred pounds for ten reps – now, you would never do this, but hypothetically – for some weird, strange reason, you only ever just did the first rep, then you put the bar back down, never attempting a second, third, fourth, fifth rep, would you ever grow? No. It's too easy, there's not enough intensity of effort.

The intensity – to be more specific – the intensity of the stress on the first rep of the set of 10 is not sufficiently threatening to your body to warrant an adaptive response, that is, a strength and size buildup. Just like you couldn't get a suntan sitting in front of a hundred watt light bulb. I don't care how long you sat there or how much Phosphagain suntan lotion you rubbed all over

your belly button, that 100 watt light bulb is not intense enough, the intensity of the stress doesn't threaten your skin sufficiently to warrant an adaptive response of – that's not a muscle buildup – but a suntan buildup.

You see, audience, most people think of developing a suntan or developing larger muscles as something merely cosmetic. And by cosmetic, I mean to improve your appearance, but of course, nature couldn't care less if you were a blonde Adonis on the beach with a 22-inch arm, the development of a suntan, just like the development of larger muscles, both of those things represent, literally, defensive barriers the body builds to protect itself from future assaults of high-intensity stress, whether high-intensity, ultraviolet sunlight stress or high-intensity, anaerobic exercise stress.

Executing that last, almost impossible rep causes the body to dip into its reserve capacity, or ability. And since your body obviously only has a very limited reserve ability, the body protects itself from future assaults on its reserve by enlarging upon its existing ability through the compensatory buildup of more muscle mass.

That's probably the most intelligent statement in my whole seminar today, it's very abstract. So, this is not a put-down. Is there anybody here who'd like me to restate that? I understand. The first time I read that, I had no clue what the hell that meant; but after I understood it, I got so excited, you couldn't peel me off the ceiling for 2 days.

Listen very carefully, I'll repeat it a third time if required. Executing that last, almost impossible rep causes the body to dip into its reserve ability. Not the first rep, it's too easy. Now, since the body only has a small amount of this reserve to draw upon, since it only has a small amount of this reserve ability to draw upon before depletion occurs, the body protects itself from future assaults on its reserve by enlarging upon its existing ability through the compensatory buildup of more muscle mass. That one statement encapsulates the entire science of bodybuilding exercise, but it's very difficult to grasp on first hearing. That doesn't mean you're stupid, that just means you're not godlike.

When you first sat down on your first day in kindergarten, did you fully understand the ABCs? I didn't, I was kind of slow, it took me weeks; but now look, you fully understand it, you've integrated the ABCs into words, words into sentences, sentences into paragraphs, paragraphs into books. Work with that concept. There are a few people who got excited, properly, by that. Think about that later on and you'll fully understand the actual science of exercise.

Only high-intensity exercise can force the body to resort to this reserve ability, once again, sufficiently to stimulate an adaptive response in the form of a muscle mass increase. Repeating tasks that are well within your existing capacity do nothing to stimulate growth. If you can curl a hundred pounds for 10 reps, and all you ever try is 10, your body has no reason to grow. You have to attempt tasks that are beyond your existing capacity. That's what stimulates growth. And, of course, how does the bodybuilding orthodoxy and exercise science have you train? Not to failure – oh no, there's something apocalyptic, frightening, dire, don't train to failure, you might grow a third eyeball or hair on your tongue; don't train to failure, it's dangerous! Well, Brian Johnson and I, and at least tens of thousands of others in the world have been training to failure for 20 years. It never bothered me.

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There's nothing wrong with training to failure; you have to train to failure to stimulate a strength and size increase; again, this is the point: repeating tasks that are well within your existing capacity do nothing to stimulate growth because you can already do it! Your body already has the capacity to curl a hundred pounds for 10 reps, it's only when you try that impossible eleventh rep, that you stress the existing capacity, you stress, or endanger the existing reserve, and the body seeks to protect the reserve by enlarging upon its existing capacity, so that no longer will that eleventh rep seem like a threat. Did you follow that? Okay, thank you. I can leave right now. I feel fulfilled.

Carrying a set to the point where you are forced to utilize 100% of your momentary muscular ability, audience, is the single most important factor in increasing strength and size. Working to a point of momentary muscular failure where another rep is impossible despite your greatest effort ensures that you've passed through the breakover point, or that point in the set below which you go and growth will not be stimulated, and above which you go and growth will be stimulated. Interesting to note, here: even the detractors of high-intensity training theory have to admit that the last rep of a set is the most productive. Think about it, all these people, many of them knuckleheads, who claim high-intensity training theory is... Now what's the first principle of the theory of high-intensity training? The principle of intensity. When they say high-intensity doesn't work, there's no validity, that's like saying the first rep is better than the last. So if you can curl 100 pounds for 10 reps, just do one rep, forget the last 9, because intensity doesn't matter. Come on.

I had a client of mine, he's now a good... client – I was telling Brian this earlier – he called me several months ago, he was in a quandary, he said, “Mike, I don't know, I'm awfully confused. I don't know if I should sign up with you or Charles Poliquin<sup>2</sup>.” His name is Mack, I said, “Mack, if you're that confused, and you can't see on the face of it the difference between Charles Pollack and I, I really don't want you – sign up for him, you deserve each other.”

Anybody who denies – this is the point, all the semi-jokes aside – if you believe that the first rep of a set to failure is better than the last rep of the set, “you're either so stupid that you don't deserve my presence”, as Arthur Jones used to say, or you've just got something very wrong with you.

Obviously, the last rep of a set to failure is the most productive. Now, there have been a few individuals, not necessarily high-intensity advocates, who have raised the intelligent question – I'm not saying everybody who's against high-intensity has no intelligence, they're just on their developmental way to finally embracing this, and I mean that sincerely – a few individuals have raised the intelligent question as to whether it is actually necessary to train to failure. They say, “Mike, how do you know for sure that 100% intensity of effort is absolutely required to stimulate growth? Maybe it's only 60% or 82 or 91.” It's a good question. How do we know? Well, the problem here, audience, would be in one measuring intensity. There are, in fact, only two perfectly accurate measures of intensity: 0% when you're totally at rest, and 100% intensity when you're exerting yourself with maximum effort.

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2 Charles Poliquin is a Canadian weightlifting coach who differed diametrically in his training methods from Mike. He is author of several magazine articles and books on his training methods. Poliquin seemed to believe that more volume was better, which Mike logically opposed as one of the only proponents of training with high-intensity.

So long – here's the point – so long as you are exerting yourself with 100% intensity of effort, you will have passed through every possible breakover point, 62%, 79, 84, 93. As long as you go to 100, you pass through every possible growth stimulation point, you see? That's why we keep stressing training to failure is not going to hurt you. Not only is it desirable: it's absolutely necessary so that you know you stimulated growth.

Does that help anybody? Most of you know this already. No? It's new material; some of this is a little bit abstract, I know, but if you listen, you take notes and you reflect on what you wrote down later, again, just like the first time you sat down in kindergarten, you didn't fully understand the ABCs. Think about this stuff here and you'll learn to think logically about exercise, so you won't have to keep running impulsively to the newsstands every month, grabbing up a handful of magazines, running home, locking the bedroom door, tearing the phone out of the wall and scavenging the pages for 4 hours, hoping, that someday you'll find a magic routine. That's like playing Russian roulette with your life: it doesn't work.

Man's specific physiological characteristics dictate what training causes must be enacted to achieve the desired effect, that is, an optimal increase in strength and size, not my opinion, not the whim, the will or the wishes of the majority, but nature, nature requires what you gotta do to stimulate growth. The primary causal determinant – the first cause, the most important thing, in simpler language – is unequivocally, without a doubt, the imposition of a high-intensity training stress. And, while the imposition of a high-intensity training stress is a first, necessary cause, it is not sufficient cause to effect an optimal increase. There is another, very important physiological characteristic, which must be considered, one that has been perpetually ignored by the bodybuilding orthodoxy, by exercise science and, more likely than not, by you.

This particular idea, this physiological characteristic, has been ignored, which is why most of you here today have failed to achieve your strength and bodybuilding goals, and I, again, aver, with absolute, utter certainty that the majority of you in here today are frustrated, having failed to come even close to your bodybuilding goals. And you know I'm right, I'm not omniscient, I don't have a crystal ball, because I simply, logically understand the laws of nature, and I know that you're violating the laws of nature, you're not doing what reality requires to stimulate increases in strength and size.

Those who are unaware of the nature, role and value of fundamental principles – remember at the outset I described what fundamental principles are – those who are unaware of the role of fundamental principles usually have a very difficult, if not impossible, time achieving their goals.

Being emotionally driven instead of conceptually directed, they seem to operate on the warm, fuzzy notion that if their desire to achieve a goal is great enough, that's all they need; just sheer desire. And, never having made it a policy to check for inappropriate mental habits, they semi-consciously resort to the unchecked, unchallenged notion, again, "more is better". If stated in words, these people's basic attitude would be: "I want big muscles so badly, if I persevere and go to the gym slavishly every day, eventually I have to succeed. After all, everything I've heard in the culture, everything I've read suggests that, if I'm relentless, if I'm a slave to my art, through sheer dint of unrelenting effort, I will succeed", which is Arnold Schwarzenegger's

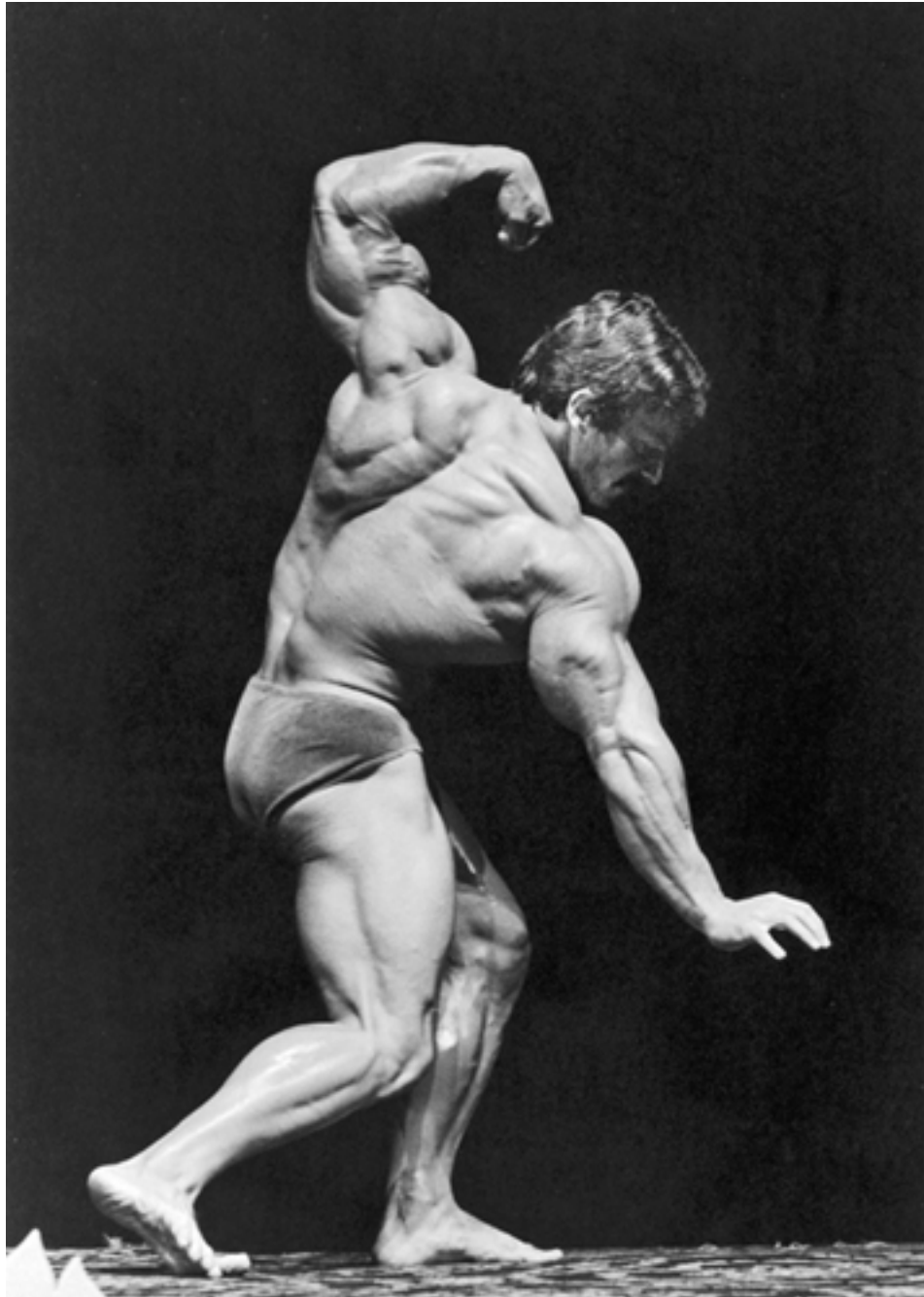
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favorite concrete-bound concept; just keep trying, just sweat, don't ever give up and eventually you'll succeed. You know how many people have failed with that idea? Every failure.

Well, the joke is on them; how pathetically wrong they are. As I indicated emphatically numerous times, just a while ago, it is the laws of nature that dictate the training causes that must be enacted to achieve your goals.; neither a wish, a whim, a hope, a dream, a wish or desire is sufficient to cause a muscle mass increase. I don't care how special your mommy thinks you are, how long you pray to God at night, that is not enough to effect a buildup of muscle mass beyond normal levels, neither is the application of a false idea or theory blindly accepted.

## Part 3: Bodybuilding Fundamentals II

Seminar recording start/end time: 57:05 – 1:23:24





*“The cynicism that regards all hero worship as comical is always shadowed by a sense of physical inferiority. Invariably, it is the man who believes himself to be physically lacking in heroic attributes who speaks mockingly of the hero... I have yet to hear hero worship mocked by a man endowed with what might justly be called heroic physical attributes. Facile cynicism, invariably, is related to feeble muscles or obesity, while the cult of the hero and a mighty nihilism are always related to a mighty body and well-tempered muscles.” -Yukio Mishima*

I made the point a minute ago that man's physiologic nature, man's physiologic nature, demands the imposition of a high-intensity training stress, as a first, necessary cause, but that it is not sufficient cause to effect the desired result. One of man's specific, physiologic characteristics dictates that the training stress must be cautiously regulated in terms of volume and frequency: it is his strictly limited recovery ability. The human being does not possess an infinite capacity for tolerating the exhaustive effects of intense physical stress. In fact, audience, and this is literally true, nothing in the universe is infinite, even the universe itself, including the biochemical reserve of resources that make up recovery ability. This fact is what led Arthur Jones to state, "it is only rational to use that which exists in limited supply as economically as possible".

Few of us would argue that a high-intensity training stress is an absolute requirement for stimulating growth. The problem most people have – this is important – the problem most people have in fully accepting the theory of high-intensity results directly from their failure to grasp the significance of the preceding statement by Arthur Jones.

While the principle of intensity must be understood first as the requisite – as the first requisite, I'm sorry, for understanding anything else of value about exercise, the fact of a limited recovery ability – please write the world down, recovery ability – the second most important concept in exercise science after intensity. The fact of a limited recovery ability is the next key concept that must be grasped in the logically-interdependent hierarchy of scientific knowledge in exercise physiology. It is the only on the basis of knowing that the body has a limited recovery ability, that one may understand why the volume and frequency of exercise must be cautiously regulated.

Again, once you understand intensity, this is the second most important concept in the entirety of all of exercise science. I realized – just the other day, in fact – that the issue of recovery ability has never gained the full attention it deserves, which is why so many of you continue to chronically, grossly overtrain, and for that precise reason, you fail to achieve your bodybuilding goals. In fact, think about it for a second, reflect for a moment: when was the last time any of you saw the term recovery ability used by the bodybuilding orthodoxy in any of those muscle magazines or comic books?

As I have stated repeatedly in my books and articles, not only do these people fail to define any of their concepts, but their conceptual range is profoundly limited; they just don't have much knowledge. The average exercise scientist today doesn't even know what recovery ability is. The average exercise scientist today, being the lazy, dumb bastards they are – literally, I don't say that with any slightest pause, because they deserve the title – they have never taken any time to do legitimate research, none of them, not Dr. Kraemer, not Dr. Fleck<sup>3</sup>, none of these people have ever done any research, it's all made up, these are total phonies. They stole the idea of doing 60 sets a day from Weider, because as Kraemer and Fleck said, "that's how all the champions train". Well, that's real scientific. They totally ignore the issue of a limited recovery ability.

All of you in here, I presume, have worked out at some point or another; when you're done working out after an hour or two or even 30 minutes, aren't you tired? Well, that's obvious

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3 William Kraemer and Steven Fleck were two prominent writers in the magazine Muscular Development, in addition to being authors of several books on strength training.

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proof you have a limited recovery ability; but these guys, they know that doesn't count. They're real geniuses.

In fact, it's curious: when I was a kid and saw the word "PhD", I was in awe, I thought, "My God, these people are literally godlike. These are the few special people who spend their whole lives in the ivory tower and they know everything about everything." Now, I realize that the other old saying is true: "PhD means piled high and deep in bullshit." And it's true. I've met maybe two PhDs in my life who literally deserve the title of a doctor of philosophy in his field. Remember, we live in an anti-rational culture. Do you think the field of exercise science would be exempt? No, I would think they'd be among the first to become stupid.

The fact that recovery ability is strictly limited, leads to a logically-warranted conclusion. It is this: that the issue of volume, or number of sets, whether you do one set or a hundred sets, the issue of volume, as I said earlier, is a negative factor, a negative influence – period. Whether you do one set or a hundred sets, insofar that you do any sets at all, the issue of volume – I'm not speaking metaphorically here – the issue of volume in bodybuilding exercise science is a negative factor, because, for every set you perform – one set, two sets, three sets – for every successive set you perform, there is made a deeper and deeper inroad into the body's limited recovery ability; that's a negative, let me explain.

In order to understand the concept "inroad", audience, you might think of it as the term clearly suggests – visualize it- what's an inroad? An "in" into the road; a hole being dug. You do one set, you dig a small hole, you do a second set, you dig a deeper hole, a third set, even deeper; that's a negative thing because the deeper and deeper that hole gets, the deeper the inroad, then that much more of your recovery ability has to be wasted on filling the hole – or recovery, we call it – leaving that much less left over for building the mountain on top: the muscle. But, of course, you have to do at least one set to have a workout. Remember how I started this section on volume. I said, the issue of volume is a negative factor, period; literally, even one set. But, of course, you have to do at least one set to have a workout.

Ideally, we can somehow figure out a way to stimulate growth with zero sets, that way none of your body's recovery ability would be wasted on filling the hole, recovery; it would all be used for overcompensation, building the mountain on top, and you'd grow so damn fast it would stagger the imagination. But of course, as of today – I'm working on it – I haven't figured out yet how to stimulate growth with zero sets.

On occasion, I have had a phone client ask the question, "Mike, would it really make a difference..." Hold on a second, I'm missing something here.

As I was saying a second ago about the importance of this issue of recovery ability: it should be one of the two issues of most central concern, literally. The issue of recovery ability should be one of the two most important issues of central concern in exercise science, and they all but completely evade it. In one of the more recent issues of Flex magazine, one of the Weider's top champs planned to perform 45 total sets per workout; which, of course, amounts to chronic, gross, ridiculous overtraining, which can only be engaged in, by the way, with the help, or mitigating influence of, nightmarish quantities of steroids, growth hormones and many of these new other drugs, which I can't spell or haven't taken the time to learn how to pronounce.

Considering this, that Weider's top champs are only doing 45 sets, I find it rather interesting that the vaunted exercise scientific establishment is now advocating that all, everybody, including you, the natural, non-steroid bodybuilder, do 60 sets every day of the week.

On occasion, I've had a phone client ask, "Mike, would it make a difference? Would it really make a difference to do a second-set? You keep making such a big deal about doing one set." And I respond something to the effect that, "Doing a second set is neither necessary nor desirable. In fact, it would be the biggest mistake you can make." Going from one set to two sets is literally the biggest mistake you can make, because going from one to two, audience, is not merely a linear increase of 1 unit, 1 to 2, it represents a doubling, a 100% increase, in the volume of the exercise; and, remember, that's a negative; even one set represents a negative, because insofar that you train at all, you make an inroad.

Well, some people might say, "Well, Mike, if I do a second set, maybe I'll get a little bit more growth stimulation." But then I point out, whatever little bit extra growth stimulation, you made a doubly-deeper inroad to recovery ability, so that negates any greater growth stimulation.

How do most bodybuilders train today? They go into the gym with the notion that their purpose is to see how many sets they can do, or how long they can mindlessly endure. And that's wrong, of course, because bodybuilding is not aerobic; a bodybuilding workout is not an endurance contest. In fact, it used to be, when I signed up new clients locally down at Venice, California, by the end of the first workout, my new clients would look at his watch and he goes, "But God, Mike, that was only 16 minutes. I feel like I can do more!" And my stock reply would be, "But, sir, if I'm to take your statement at face value, I would have it you'd like me to train you until you can't do any more, and you have to leave the gym in an ambulance!"

The point I'm underscoring here, again, audience, is that your purpose as a bodybuilder is not to go into the gym, to either prove or improve your endurance, but merely to stimulate growth, with one set to failure. Now, if you don't like the standard of notation, 1, and I understand this, yes I'd rather have 100 dollars than 1 too; but we're not talking about economics here. If you don't like the number 1 in this context, look at it this way, let's say you're doing a set of 10 reps to failure on the pulldowns; you're doing the positive reps slowly, under control, putting maximum stress, you're holding it statically for 2 or 3 seconds, and then lowering for several seconds under control. Do you see where each rep is actually made up of three units: the positive, the static and the negative? Times 10 reps, you really did 30 units of work. If you don't want to call it 1 set, say, "Let's do 30 units of work", that'll make you feel a little better.

Again, the point I want to make here, even if one extra set might contribute some slightly greater growth stimulation – which it won't – you also made a 100% greater inroad into recovery ability, making it that much harder to recover from the workout, let alone build a mountain on top, the muscle.

I want to discuss now, the third fundamental principle of exercise science, ladies and gentlemen, the one relating to frequency of training. The single major cause of your failure to experience meaningful progress as a volume bodybuilder, or possibly, even a high-intensity bodybuilder, relates to overtraining. If you think I'm overstating it, or I mention the issue of overtraining too often in my articles, you're mistaken.

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Considering that overtraining is the major cause of lack of progress, that most bodybuilders fail to achieve their goals because of it, and that the orthodoxy, along with exercise science, has unconscionably evaded the point, I'm actually understating the importance, the role of overtraining. Bodybuilding is not dying because of drug use, but because Weider and the powers-that-be continue to blindly promulgate the notion that volume overtraining is the best way to proceed, while rarely informing you that their top champs take outrageous, even nightmarish, quantities of drugs to help counteract overtraining.

I find it curious that the great majority of bodybuilders, knowing that overtraining means something obviously decidedly negative, never look into the issue seriously. Think about it: the term overtraining is always used in a negative context; in fact, try using it as a positive. Try using the term overtraining positive – you can't do it.

By definition, overtraining means performing any more exercise, in terms of both volume and frequency, than is minimally or precisely required to stimulate growth. The majority of bodybuilders today, still seem to operate on the notion that their purpose, as I said earlier, is to go into the gym to see how many sets they can do, how much they can take or how long they can mindlessly endure. And that is wrong, because, again, bodybuilding is not aerobic. In other words, ladies and gentlemen, a bodybuilding workout is not an endurance contest.

Bear in mind that your actual, literal purpose as a bodybuilder is to go to the gym and intelligently, rationally, logically, knowingly do what nature requires, merely to activate the growth mechanism, then get the hell out, go home, rest and grow.

Many bodybuilders today, apparently still don't understand that the big picture in bodybuilding is comprised, essentially – I emphasize the word essentially – in fact, you might write this down; I'm going to elaborate on this next crucial point for a few minutes, then we're going to go into an actual outline of a real training program. This is the last crucial point.

Most bodybuilders today do not understand that the big picture is comprised, essentially, of two elements of equal value – I emphasize the word equal – by equal value, I mean, literally 50/50, not 60/40, not 70/30, but 50/50. The first element, the first 50% of the big pictures, obviously, of course, is the actual workout – who would deny that? But just as important, the other 50%, not one iota less important than the actual workout, is the rest period between workouts. And here's why: the workout, you must understand, does not actually produce – the word is produce – the workout does not produce muscular growth. Remember, the workout is merely what? A stimulus; it stimulates what? The body's growth mechanism into motion; it is the body itself that produces the growth, but only if you leave the body undisturbed by further exercise during a sufficient rest period. Or you could say it simply in other words: if you don't rest enough, you don't grow enough, if at all.

Now, here's the crux of the problem. How does anybody know with reasonable certainty that enough time is elapsing, in fact, between workouts? The answer is to be found in the following. Immediately upon the workout, you don't feel the same as you did before the workout, do you? You're tired, exhausted; there's a deficit. In addition to the personal experience of feeling fatigued, you have also exhausted in the technical sense, a considerable portion of your body's resources, or recovery ability, which were used to fuel the workout.

Recall from earlier that the extent to which you workout, or do a number of sets, you make what's called a what? An inroad – a key concept in exercise science – you make an inroad, you dig a hole, into your recovery ability. The first thing your body must do after the workout is not grow, but what? Recover; fill the hole, overcome the inroad, the deficit. Or, as Arthur Jones used to like to say very eloquently, “compensate for the exhaustive effects of the workout – put back what was used up, put back what was there before the workout”.

And here's the important point related to that: the process of recovery, overcoming the inroad, filling the hole, is not completed, zip, in 5 minutes after the workout. In fact, the completion of the recovery process itself may take several days, a week, or longer, depending on the individual, his age, existing condition, the training stress, his nutritive equilibrium. It can take the body several days or longer to complete the recovery process before the body even has a chance to start building the mountain on top, which is overcompensating, building the muscle.

And, if you train again before the recovery process is completed, you will short-circuit the growth production process shy of 100 possible units. That's correct, the recovery process alone may take several days to be completed; and here's the proof. Every bodybuilder in here, of any experience, has had the experience of performing a tremendous leg workout, say, on a Friday afternoon, after work. And then after resting all weekend, you wake up on Monday, and you're still generally fatigued. Your legs may feel more or less recovered, but you still experience a sense of generalized, or systemic fatigue – you know what I mean.

One of the chief sources of confusion on the issue of frequency – this is very important – one of the chief sources of confusion on the issue of frequency is due to bodybuilders not realizing that exercise, in addition to having a localized effect on the muscle you're working, also has a systemic effect, a systemic effect. One must rest long enough between workouts to allow for localized muscle recovery, like the legs, or the arms, which again, takes place rather quickly; but also, you must allow enough time between workouts to allow for systemic recovery, which takes considerably longer.

In fact, a good friend of mine, one of the guys who... my website, a very brilliant fellow named Dave Stakeland, who some of you may know, said one of the most intelligent things in this regard, I ever heard. He said, “Mike, we should not be prescribing rigid formulas for frequency. Each client should base his training frequency from his own progress chart.” Let's say one workout you go up phenomenally, 55 pounds on the deadlift; obviously there was a much greater stress on the body, instead of waiting 7 days, maybe wait 10 days, to allow for the greater recovery necessitated.

If you now recognize that the rest period between workouts is just as important as the actual workout itself, if you accept that premise, that the rest period is just as important – and I assume most of you here do – do you see where it stands to reason that there must be a perfect, or optimum, number of days of rest between sets? Just like... the number of sets to do. There has to be a perfect frequency, a perfect or optimum number of days of rest between sets.

I, and many other high-intensity trainers, have learned through enormous experience, that for the vast majority, training once every 5 to 7 to 10, or, even less frequently, is literally almost magic compared to any other protocol. It is always a mistake to train 2 days in a row, because 2

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days in a row, or 24 hours between workouts, is not sufficient to allow for either full recovery or growth production. And no, absolutely not, decompensation does not take place (You know the term decompensation? We used to use the word atrophy, or muscle loss, strength loss), does not occur after 96 hours of no training.

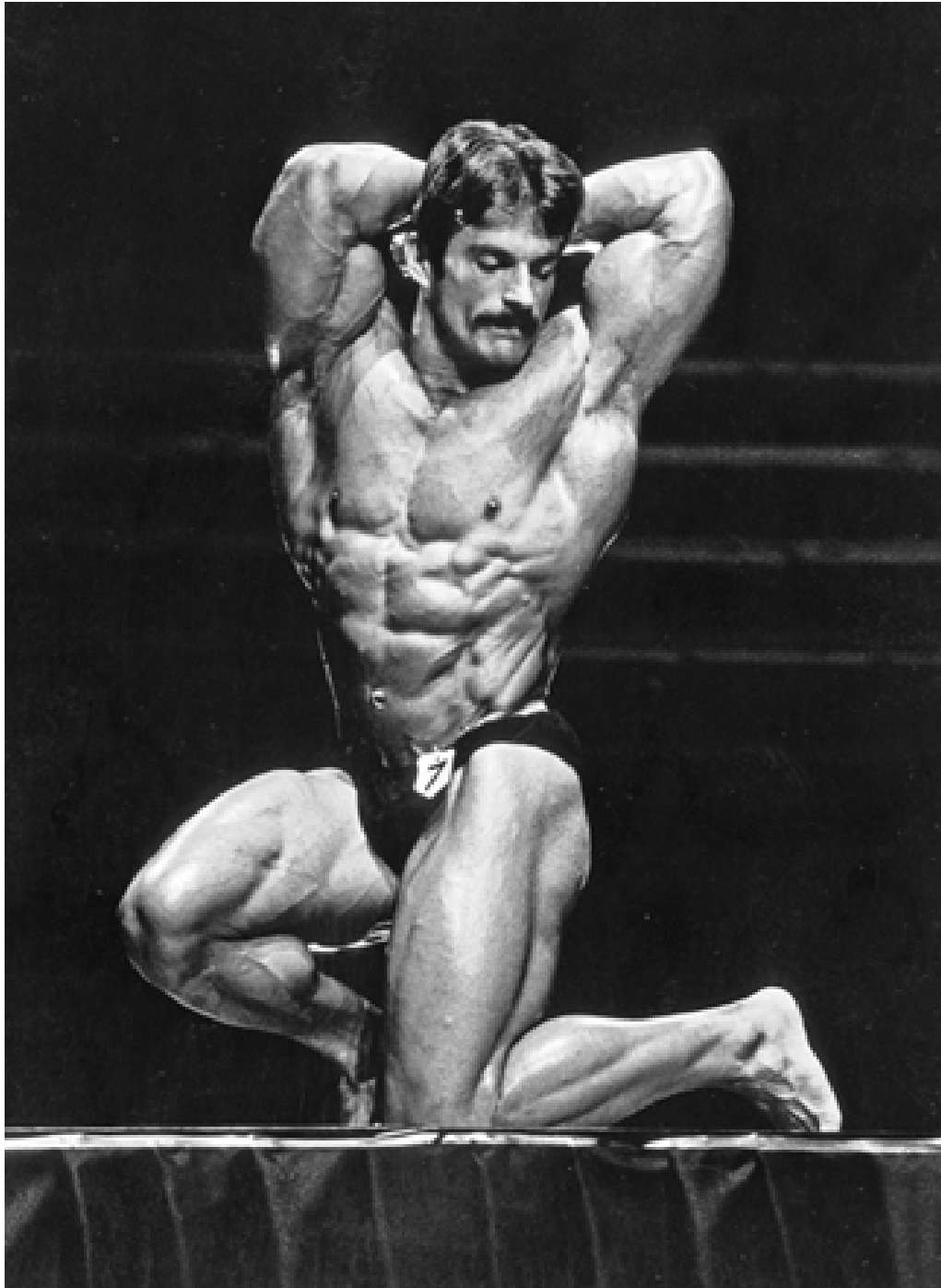
A number of years ago, I asked numerous bodybuilders, including some of the top ones like Dorian Yates, I said to them, "Hey, have you ever noticed that after a layoff of a week or even two, or even longer sometime, that you always come back stronger?" And they all responded, in effect, "You know, Mike, it's kind of odd that you bring that up. But, you know, now, yes, that you're making it a point, I always have the same experience. After a week or two or even longer off, I come back stronger." Well, if these individuals, if you come back stronger after a layoff, you didn't decompensate – you're stronger. You did the opposite: you overcompensated. So, the point here is this, do not worry, you will not decompensate after one to two weeks, so, therefore, you're not going to decompensate after 4 days. Okay?

That's really all I have to say on the issue of frequency. A few words to conclude this theoretical material, then I'll give you an actual training program to, at least, consider trying. What you have just heard, ladies and gentlemen, was not intended as an exhaustive treatise on the subject of exercise science. More important, of greater practical necessity, is that what I just gave you provides a broad, general discussion of the fundamentals – again, the term, fundamentals – of bodybuilding science, an understanding of which is an absolute requirement for those seeking to lose their confusion and gain a logical perspective on the subject of productive bodybuilding exercise . If you do not fully understand all the issues you heard today, then check your notes, re-read them, re-re-read them and re-re-re-read them, as somebody once said to me, and I know why he emphasized that. Some people think if they read a particular subject and they don't get it on the first reading, you're somehow mentally lacking – that's not true. Even brilliant geniuses have to re-read and re-re-read and re-re-re-read books over and over until they get it.

Where concepts are new, don't be afraid, consult your best friend, the dictionary, and spar with him; by that. I mean, connect these new ideas to other related ideas and experiences you have in your subconscious. Before long, you'll have a firm, thorough understanding, such that you'll be able to move ahead as a rational, principled, logical bodybuilder, and finally achieve the results you always believed impossible, but that you now know to be possible.

## Part 4: A Concrete Workout Routine

Seminar recording start/end time: 1:23:24 – 1:52:50





*“What, if some day or night a demon were to steal after you into your loneliest loneliness and say to you: ‘This life as you now live it and have lived it, you will have to live once more and innumerable times more’... Would you not throw yourself down and gnash your teeth and curse the demon who spoke thus? Or have you once experienced a tremendous moment when you would have answered him: ‘You are a god and never have I heard anything more divine.’” -Friedrich Nietzsche*

The following is a concretization – the word is concretization – everything you just heard was abstract, theoretical material; now, we're going to bring all that abstract stuff down to the concrete, the in-reality. The following is the ultimate consequence and final practical application of the abstract theory just described. It is a training program, a modified, improved version of the consolidation program listed in my book, *Heavy Duty II: Mind and Body*. Many of you who have that book are keenly aware of the consolidation program, suggested routine 2. What I'm about to outline for you is a new, improved version of the consolidation program.

Before I outline the program, however, I'd like to give you a good idea as to what you might realistically expect in the way of progress. I will recount the success stories are two of my local clients in Marina Del Rey, California. The first is a very nice young fella named Andrew Tucker, who has a special visa to live in the U.S. from England. Andrew is an extremely intelligent young man, who at the age of 22, is literally one of the handful of individuals in the world with considerable knowledge doing computer-generated animatronic... like they did in Jurassic Park. Just a little background material on Andrew. Andrew approached me some time ago complaining of being painfully thin, weighing only 163 pounds at 6 feet. I didn't think he was all that thin, but it did give him some psychological problems. With the program that I'm going to list for you today, where he did only 2 sets per workout, once a week, Andrew is now up from 163 pounds to 210, and within four and a half months; and his deadlift went from 170 to 380 in the same period.

Not long after Andrew signed with me, another young fellow John Kulikov, one of my favorite clients, approach me also complaining of being painfully thin, which in this case, he really was painfully thin. In fact, before his first workout, John and I sat down together alone to the side, where he confided in me that for his entire life, he suffered enormous psychological complexes, being so thin. He had tried every type of program, the Weider program with Met-Rx and the Cybex program – he tried everything you can imagine – couldn't gain any muscle, he came to me and said, "Mike, you're my last resort." He was so thin, he was the type of guy you used to joke about in the locker room, you know, "I hate to see this guy stand over the shower drain, we might lose him". He really was very thin. Within 3 months, using the program I'm going to list for you today, John went from 147 pounds at 6'1", until now he weighs just shy of 175; with his deadlift going from 165 to 345; and he's well on his way to reaching his ultimate goal of 200 pounds – he will never again suffer the problems associated with being terribly thin – and only training once every 7 days, for the past 3 and a half months.

Now, make no mistake, what I just explained to you, these gains are not otherworldly; they represent the norm that can be expected when utilizing a properly conducted, high-intensity training program. Of course, not every one of you here will gain that well, although many will – some of you will gain even more – with the genetically bereft perhaps not doing quite so well.

For those of you who find stories such as these inspirational, you might check out my website at [www.mikementzer.com](http://www.mikementzer.com). A number of these success stories have with them the phone numbers of the individuals listed so you can call them and check for authenticity. None of this is lies. If you know nothing about high-intensity training and you hear it's possible to gain 25 pounds in 3 months, and almost double your deadlift, it may sound impossible, it's because you're ignorant at this point; but you don't have to remain ignorant.

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The following routine, the program you're about to hear listed, is, at least from one perspective, the literal perfect bodybuilding program. If you keep in mind this one thing, that the ideal situation is to be able to stimulate all of the major muscles of the body, with the least amount of exercise possible, which is one set. Now I'm not going to ask you to do but one set - let me explain.

Bearing in mind, all the while that, as I stated earlier, the issue of volume, number of sets, is a negative factor. Keep that in mind as you hear this. You will perform two different workouts referred to as Workout A and Workout B. You will do one workout a week. So if you start on a Saturday, for instance – this doesn't have to be a Saturday – with Workout A, you wouldn't perform Workout B until the next Saturday. And if a scheduling conflict arises, as often does, don't go back to the sixth day, don't reduce the frequency, go to the eighth day. And after eight or so total workouts, take two full weeks off, then resume training once every nine days. And for the following reason. In fact, this is the most important issue in exercise science, once you have first understood what you heard earlier: the fundamentals of intensity, volume and frequency. After eight or so total workout, take two weeks off and resume training once every nine days for the following reason.

You will grow stronger as a result of every workout, without a doubt, unless you're extremely genetically hurting. You will grow stronger as a result of each workout; you will, in other words, audience, be lifting progressively heavier weights all the time. Do you see where it stands to reason, dear listeners, that as the weights grow progressively greater, then the stresses also grow progressively greater too? Does that make sense?

If you don't do something to compensate for the ever-growing stress, the stresses will reach a critical point such that they constitute overtraining. The first, of course, will be a slowdown in progress; and if you continue with the same exact volume and frequency protocol, there will ultimately be a complete cessation of progress, known as a sticking point.

I, like everyone else, up until recently, used to believe that you had to reach a sticking point; it was inevitable. Until I realized what I just told you: that if you're lifting progressively heavier weights, then the stresses are growing greater; you've got to compensate for them, or eventually the stresses reach a critical point and they constitute overtraining. This can be prevented by inserting extra rest days and taking layoffs; you should never have to reach a sticking point.

In fact, how many of you have been reading the muscle magazines for a long time? How many articles have you seen in the last 20 years where they address the issue of sticking points at all? Not that many. They evade the subject because they have no slightest clue as to how to answer it. If I can honestly say I contributed one meaningful thing to exercise, it's what I just explained to you, that as you get stronger and bigger, you don't do more exercise, you do less, because the stresses are growing greater. In other words, a beginner is too damn weak to overtrain, but as you grow bigger and stronger, and you're handling 500 pound squats, you can overtrain very easily. So you don't train more as you grow bigger and stronger, you train less, and you'll keep growing.

Alright, let's move to the workout. Workout A will consist of, Number One, a set of squats, preferably on a Smith machine, 8-15 reps to failure. If you don't have a Smith machine, don't worry about it, just do regular old-fashioned free-weight squats. After that, take a brief rest, get a drink of water, let your breathing slow down. As soon as you clearly recognize you're ready to go, boom, you go to exercise Number Two, close-grip, palms-up, pull downs, for 6-10 reps to failure.

Now, by close-grip, I mean your grip should be about 8 inches apart, your hands palms-up. This is palms-up, not palms-down – like a barbell curl grip. Close-grip, palms-up pulldowns, 6-10 reps to failure, or thereabouts. By the way, when I say 8-15 for the squats, or 6-10 for the pulldowns, that's not a magic range or number – remember, the important thing is going to failure. If you get to 15 reps on the squat and you see you have 18, don't stop at 15. Remember, the stimulus responsible for triggering growth is that last, hard, almost-impossible rep.

Be sure to initiate this movement, the pulldown, with extreme deliberation. There should be no sudden jerking, yanking or thrusting to get the weight started and to keep it moving. Not super slow, but relatively slow, not 10 seconds up and 10 seconds down, in fact, they keynote here is there's no magic number of seconds, the keynote is control: you want to lift the weight under full muscular control, pause momentarily in the contracted position for 2 to 3 seconds and lower under control. I have discovered recently through my own workouts that this usually translates into a 4-2-4 cadence: 4 seconds down, 2 seconds hold and 4 seconds up. But if you're off by .4 seconds or 1.2, don't worry about it too much.

And that is all for Workout A, just two sets of one exercise each.

One week later, you'll perform Workout B, which will consist of, Number One, a set of regular, not stiff-legged or sumo, but regular, old-fashioned, powerlifter deadlifts for 5-8 reps to failure. Now if there is one exercise I'd like to see you fall in love with, audience, it's this one, as the deadlift is properly regarded by most as the greatest overall strength and mass builder. However, there is a risk factor seen with the deadlift you don't see with a lot of other exercises. Listen carefully please as I explain proper form...

I would suggest you – if you can, if you're strong enough – use an Olympic bar with a 45 pound plate on each side so you don't have to bend over so damn far. Start with the bar rolled back flush against your shins. Start with the bar rolled back flush against your shins – now this is a real important issue here; remember, as a trainer, safety is my paramount concern. I'm not going to ask you to do dumbbell bench presses on a Swiss ball or heavy squats while jumping up and down on the trampoline like Poliquin would have you do. Grasp the bar with a slightly wider than shoulder-width grip. Your hands should be interlocking: one hand is underhand, one hand overhand; that way, if the bar slips either way, it slips into the other hand and it locks. Squat down in such a fashion that your hips or buttocks are at least slightly lower than your shoulders, and most important of all, keep your back flat and your head up – keep your back flat and your head up at all times – do not round your back or drop your head. Think of your arms, visualize your arms as chains, they're straight up and down with hooks on the end, your hands. Deadlift the bar – don't jerk the bar with your arms – deadlift it evenly and smoothly off the ground, stand straight up, pause momentarily, then lower and reset psychologically, take a deep breath and repeat, again, 5-8 reps to failure.

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It pumps the lower back. If you experience any slightest tweaking or you're in doubt about the sensation, it might be pain, check it out, get it checked out.

No, all the way down, you're less likely to hurt yourself. And again, as a trainer, if you want to do it that way, that's up to you. You're not going to be able to sue me anyway.

Just momentarily, long enough to take a deep breath and reset.

After the deadlift, take a brief one or two minute rest, then proceed to dips, regular, parallel bar dips, just like you did back in highschool gym class. Do the dips like the pulldowns under full, strict muscular control for 6-10 reps to failure. If you can do more than 10 reps, as I rather suspect most of you can do, add weight. I meant to emphasize, the dip, think of the dip as the upper body squat, you cannot beat it. It is the best pec exercise, the best shoulder and tricep exercise. If you don't have access to one, or you can't do dips, try incline presses.

And that's all for Workout B.

Now, I have no doubt what some of you are thinking, "That's it, Mentzer? That's all? You got to be fucking crazy."

Well, remember, the goal is not to see how many sets you can mindlessly endure, but to intelligently, knowingly, rationally, logically do only what nature requires to activate the growth mechanism and no more. Yes, there are hundreds of exercises you could do, but where do you draw the line?

Very often, when I tell a new phone consultation client to do this workout, he'll say, "But Mike, how about the leg curls for the hamstrings? No bent-over dumbbell concentration curls like Arnold says for the lower outer 32nd of the bicep. How about seated calf raises for that special part of the calf, or this for that, and that for this, on and on, ad infinitum; and I respond rather firmly, "But sir, that's precisely what the hell you were doing before? And that's what led you to call for my phone services, whether you realize it or not. Your problem," I continue. "Is that you so burned yourself out with all those sets trying to build in the detail – why don't you build a 20-inch arm first?"

You see the point. Yes, there's a thousand exercise you could do, but where do you draw the line? Remember, you're going into the gym just to activate the growth mechanism with the least amount of exercise possible. A bodybuilding workout is not aerobic, a bodybuilding workout is not an endurance contest. Your only purpose is to activate the growth mechanism with the least amount of exercise possible.

Those success stories I listed 20 minutes ago are not fakes, and again, if you doubt my veracity, check my website. We've got dozens of success stories on there with phone numbers. The one kid, one of the greatest success stories, Bryce Dunn, last Sunday, had 37 phone calls from people all over the world to check to see if I was lying about this. Yeah, I pay all these guys 10,000 dollars to lie. I wish I was making enough money to afford that.

Keep in mind, also, of course, you're not morally, legally bound, people, to do this whole program the rest of your life. However, if optimal strength and size increases is your goal, then seriously consider trying this. I have no doubt that those of you in here, you volume trainers,

you're not making any meaningful progress, if at all – you have nothing to lose to try this, and everything to gain.

... of the type of routine I'm giving you, there are no isolation exercises involved here. Again, I could have given you a hundred more exercises, statics, and negatives and rest-pause, but, as your trainer in a sense, my job, initially, is to get you to start growing. We can throw in the heavy artillery later, try this for 3 months first. I call this a baseline program. If you start throwing in all these other, these tangentials, and you were to call me for a phone consultation, I wouldn't know how to assess your progress. I always start people out on this bare-bones, start-up, baseline program.

I did say a few minutes ago, that from, at least, certain perspectives, this program is the perfect strength or bodybuilding training program, if you keep in mind, once again, that the ideal situation is to stimulate all the major muscles of the body with the least amount of exercise possible. Well, again, I'm not asking you to do the least amount possible, which is one set. Interesting to note here, however – listen to this.

I have a few clients doing but one set a workout. In fact, my best gaining client ever, literally, is a phone client, my greatest success as a trainer. His name is Will Robertson, he's got considerable publicity on the Internet, and there was an article published about him with photos, was about a year ago in Master Trainer. This young fellow, Will Robertson, is a very bright 21 year old with the greatest vocabulary I've ever seen with anyone that young, a brilliant young kid. He's an English literature major at the University of North Carolina. Here's the crucial point, a bodybuilder who doubled, yes doubled, his physical mass in 4 years, going from 125 pounds at 5'6", to his high of 254, at 5'6" in 4 years.

A few years ago, when Will first signed up with me as a phone client, he explained that he was having very severe, psychological problems being so thin. Here's the kind not-so-cute point. Now, at the other end of the spectrum, he informed me recently during a followup, he's having problems too. It seems that, wherever he goes on campus, whether to the library to study, to the cafeteria for lunch, to classes, he is stopped all day long, incessantly, by teachers and students who are curious as to how he became so freakishly muscular. He just wasn't psychologically prepared for all the attention his enormous muscles would gain him. Anyway, to conclude, at this point in his training, Will is now only doing one set per workout and he's still growing.

Let's return to the why. Why is this program that I just gave you – from one perspective, again – perfect? Well, let's look at the pulldowns. While most people think of them exclusively as a lat exercise (and they are very good for the lats), they are also very effective at working the rear delts, and it just so happens to be true, audience, the close-grip, palms-up, pulldown, is the best bicep exercise in the world, better than any curl you can do. Here's why. When you do a curl, whether it's a barbell curl, a Nautilus curl, a dumbbell curl, whatever, you're working this muscle around a single joint-axis, the elbow, which is why the stress is limited exclusively to the lower bicep, if you've noticed. When doing a close-grip, palms-up pull down, on the other hand, you're working the bicep around the joint, the elbow joint, and the shoulder. The muscle is contracting more uniformly from both ends.

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And the dips; again I said think of the dips as the upper body squat. Dips are, by far, without a doubt, they're unparalleled, they are the best exercise for pecs, delts and triceps.

Did any of you happen to catch the Olympics from Atlanta a couple summers ago on... ? There were three Americans who work the parallel bars – you may recall – three American gymnasts, who work the parallel bars, that possessed pecs, shoulders and arms like those of an advanced bodybuilder, literally. Not just, you know, kind've beginning bodybuilders, but advanced bodybuilders. One of my recent phone clients happens to be deeply involved in the world of gymnastics, and he knows those three guys. He told me that people ask them all the time if they lift weights, and they don't. They developed those big upper bodies doing dips. And then just last Sunday I happened to tune in, literally by accident, to ABC Wide World of Sports, and a gymnastics competition. At one point, they did a close-up of Ivan Ivankov, you ever heard of him? Incredibly, heavily muscled guy.

As he was putting chalk on his hands in preparation for the overhead horizontal bar where you do chin-ups, mostly; as he supinated the palm of his right hand to put on the chalk, his bicep isolated and popped out, it looked as big and even more defined as most advanced, even professional, bodybuilders. The point here is that this program will stimulate strength and size increases in all of your major muscles. My suggestion is that you do this workout regimen for at least 6 months in order to maximize your body's anabolic process. Yes, I know, there's a thousand exercises you could do, but you've got to draw the line somewhere, at the least amount possible.

A few final points on the program, don't make the mistake of gauging or evaluating the success of any one of these workouts based on pump or soreness. They are not important. If getting a pump was clear, undeniable, irrefutable proof that growth was stimulated, then all those knuckleheads I see down at Gold's Gym in Venice who are right down the street from my office – they're not all knuckleheads, some are in the process of learning; but these guys who continue to evade the truth and make the same mistake for 20 years are knuckleheads – these guys would have 39 inch arms by now, because they've been getting pumped everyday, twice a day, even 3 times a day for years. The pump, obviously, of course, is only temporary, I like it myself, but you're lucky if it lasts only 20 minutes. The main point is this: you won't know that any one of these workouts was a successful workout until the next time you do that workout.

That is an important point, by the way. You should want to know that every workout was a successful workout. I'm still amazed at how many people are willing to train for months and literally even years and years with little or no progress. I, personally, will not tolerate one workout with lack of progress; if I see there's no progress, I stop, analyze what I'm doing and make the appropriate changes. As I tell my phone clients, "Look, there's a reason for everything in this world, including lack of bodybuilding progress, and the number of possible explanations is not infinite. Go to the fundamentals. Either you're not training intensely enough, and/or you're doing too many sets and/or too many workouts. There's no other possibility, other than you might be suffering from some undiagnosed disease, like AIDS, or whatever." And that's a possibility in this day and age.

If you are growing stronger every workout, obviously a positive change is taking place in your muscle. That's how you gauge the success of these workouts, not by pump or soreness, but

the next workout, if you're stronger, didn't something positive happen? So the point here is: keep a training journal. Record the date of each workout, list your bodyweight at the beginning, enumerate the exercises, list the amount of weight and accurately record their number of reps, please, because even a one rep increase can be significant.

You will grow stronger, each and every workout, from the program listed, and you'll grow larger too. But only if you are obtaining adequate nutrition. Keep in mind the guiding principle: get a well-balanced diet. A well-balanced diet consists of 60% carbohydrates, 25% protein and 15% fats. All these other ratios you've been reading about lately come from, not reputable nutritional scientists, but food-faddists and nutritional mythologists. A 60/25/15 ratio is a well-balanced diet. You've heard of the 4 basic food groups: cereals and grains, fruits and vegetables, meat/fish/poultry, milk – in fact, I just realized this 6 months ago, if you're getting a well-balanced diet, if you're obtaining your daily complement of the four basic food groups, you have a 60/25/15 ratio.

Remember, muscle is not mostly protein, it's mostly water. Now, look at the word carbohydrates. The suffix hydrate means water. As you probably all know, the carbohydrate stores in the muscle become a chain of sugar molecules called glycogen, and every gram of glycogen stored in the muscle chemically bonds with and holds 3 grams of water. When you go lower than 60% carbohydrates on a high intensity program, you're going to burn the glycogen out of the muscle, not restore it, and the water that was chemically bonded will leave the muscle too, and the muscle becomes flat, flaccid and dehydrated. And if you stay on it long enough, you'll actually go into muscle catabolism. Your muscle will actually break down, go to the liver, and through a very complicated process called gluconeogenesis, will turn your own body's protein into sugar. So, sugar ain't the bogeyman it's been made out to be: it should predominate in a well-balanced diet.

You can make your recovery ability optimum for your own genetics by eating an adequate, well-balanced diet; but you can't, by stuffing in supplements and huge quantities of food, make it super-great – no. There is no such thing as super nutrition, only optimum nutrition. Your body can only utilize so much nutrients. Any excess will either be excreted or turned to fat.

Alright, thank you very much again for coming out on a Saturday.