

Supplement Savvy

Mauro Di Pasquale, M.D.

www.MetabolicDiet.com

In this article I'm going to explore some specific aspects of nutritional supplements, including covering the targeted supplements in my MD+ line of supplements. I'm only giving cursory information on the supplements in my line, mostly as examples of what complex, multi-ingredient formulations should be like, and also because most of the detailed information on my supplements can be found on my various web sites.

If you're interested in finding out more information on them, you can go to my store at www.mdplusstore.com and look at the detailed PDF information files on each supplement that covers what the supplement does, and how it does it, including references from the scientific and medical literature that back up the claims.

Introduction

I believe that nutritional supplements should be used for two basic purposes. One is to make sure that we don't run into any vitamin or mineral deficiencies that might impair health, both in the short and long term. In my opinion, everyone should take a high quality vitamin and mineral supplement daily as basic health insurance. After all, given the existence of depleted soils and pollutants in our air, water and food, making sure you have the basics along with a fair share of antioxidants and other ingredients is not really a leap of faith. It's just common sense. And it's supported by some epidemiological and other studies showing that people who take a multi have fewer problems down the line. And so, not only do we need vitamins and minerals to prevent diseases of deficiency, but it's also being discovered that taking more of some vitamins and minerals above the RDA may prevent or at least lessen the incidence of various chronic diseases and diseases that are more prevalent as we age.

The second reason for taking nutritional supplements is to try and improve certain aspects of health and functioning. In this way, nutritional supplements can be thought of as natural drugs that result in not just physiological but pharmacological (drug-like) effects. But then this is also not a leap of faith, since many drugs are derived from natural sources, and many natural plants and substances that we consume on a daily basis (such as coffee) have drug like properties.

In this mode, nutritional supplements can be used for the purpose of achieving specific results including, for example, decreasing insulin resistance, inflammatory markers in the body and serum homocysteine levels, and improving serum lipids, body composition, and athletic performance. In fact, nutritional supplements are usually used to provide some effect in one or more of three basic areas:

- Health, Beauty and Anti-Aging
- Body Composition (weight and fat loss, muscle gain)
- Exercise Performance

Most nutritional supplements have an effect in one or more of these areas. Some nutritional supplements cover all three. For example, supplements that help you to lose weight often have beneficial effects on health, beauty and anti-aging, and also sports performance. These effects can be due to the weight loss per se, or both weight loss and the beneficial effects of the ingredients in the weight loss supplement.

While this double duty effect may not be the case with many nutritional supplements on the market today, there's no reason why properly formulated supplements should not have beneficial effects in all three categories, even though the supplement is targeted for just one category. For example a weight/fat loss product should produce significant health benefits as a result of the ingredients used, not just because of the weight and fat loss it may produce. A good example of this is MD+ LipoFlush (www.LipoFlush.com). It's formulated to increase weight and fat loss and improve body composition, but it also improves health and can increase exercise performance.

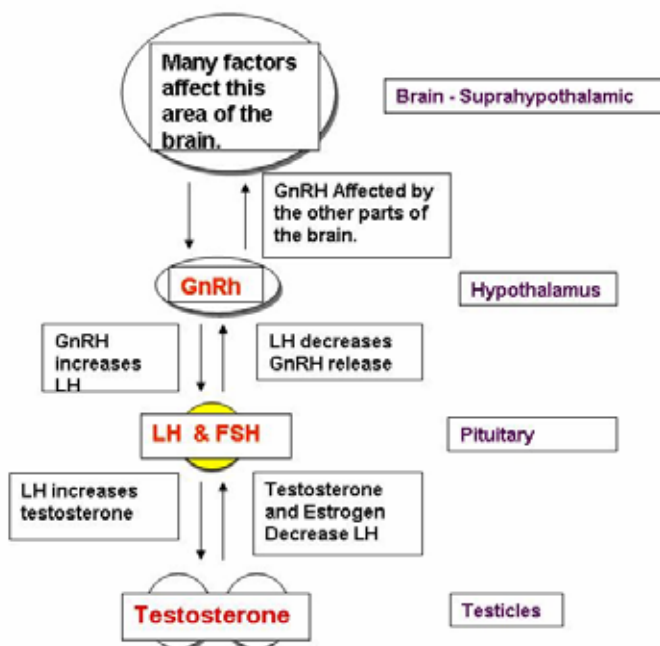
Sports Performance

Supplements can do wonders for you, regardless of what you're using them for. As far as athletes, supplements can be part of a training solution, thus allowing you to train harder, recover faster and decrease down time due to overtraining and injuries. In order to do accomplish these things, however, you have to take the right supplements at the right time and in the right amounts. Unfortunately most people who use supplements don't use them properly and, thus, don't get any significant benefits.

In this article I'm going to use some of the supplements in my nutritional supplement line as examples of the right kinds of supplements for improving body composition and performance. While this may irritate some people, who think I'm using this article as an advertorial for my supplement line, let me assure them that this is not the case. That's because what's in my supplements is the distillation of my expertise and experience in the sports and supplement field. The ingredients I use in my supplement formulations are the ones that work the best. And I don't make any compromises on this when I manufacture them, as you'll see below.

Targeted Multi-Ingredient Formulations

The most effective nutritional supplements by far are the ones that use multiple ingredients to achieve a specific effect. These multiple-ingredient supplements are targeted for a specific effect by affecting the various pathways in the body that will produce that effect. The ingredients used in the formulation work additively and synergistically to direct the body's response to the overall supplement. A good example of this is TestoBoost (www.TestoBoost.com). The various ingredients in TestoBoost are meant to affect the hypothalamic-pituitary-testicular axis (see figure below) to maximize endogenous testosterone production.



As well, TestoBoost is meant to improve sexual drive and performance, and so it has additional ingredients that work on the various pathways involved in this aspect of its effects.

Product Safety and Purity

But there's more to the story about supplement formulations than just listing the ingredients. You also have to make sure that the product is safe with minimal side effects, and that it contains pure ingredients. In order to do this you first of all have to have quality ingredients, and then you need to check these ingredients for impurities and contaminations to make sure that the product doesn't cause any short or long term problems. For example, there have been cases where ingredients were tainted by heavy metals, and cases where ingredients ended up in the product that weren't listed on the label, including allergens. In both cases, the problem is due to a lack of quality control when purchasing and using the products.

First of all, as a manufacturer you have to check the ingredients you use for purity, bioavailability, label accuracy, and you have to use good manufacturing practices when producing the product. For example, I use the highest quality, and unfortunately more expensive, ingredients in my products. Although these ingredients are analyzed as having the highest purity by the manufacturers, I double check the ingredients I use for my products for any contaminants, such as heavy metals and the presence of other ingredients that shouldn't be there.

The next step in my process, to make sure I'm getting safe, pure and uncontaminated product, is that I have all my products manufactured in a pharmaceutical grade facility that strictly follows current Good Manufacturing Practice guidelines. And to top it all off, I then have each lot checked by GC/MS to make sure that for the sake of drug tested athletes, there are no banned substances present in any of the supplements that are meant to be used by drug tested athletes.

The results, even though it's more expensive than having the supplements done at less exacting facilities and using less exacting ingredients, is a product that is guaranteed to have in it what's on the label, and nothing else. And because I operated my business on a shoestring, I'm able to bring these high level products to the consumer at a bargain price. If any other company was selling these products, it would have to charge twice as much and in many cases much more, just to stay in business.

Drug Testing

It's been shown that with the use of many nutritional supplement there is the possibility of testing positive in a drug test.^{1,2,3,4} That's because there's a possibility of contamination of the ingredients that are purchased, especially if the ingredients come from labs that also manufactures other ingredients such as ephedrine, prohormones and even anabolic steroids, and that don't follow strict Good Manufacturing Practices. There's also the possibility that the supplement manufacturer also manufactures supplements that may contain banned ingredients/drugs and, because of poor cleaning practices, these supplements contaminate their other products.

And so, even if the labels don't list any banned substances, they still could be in the supplement. The only way to be 100% sure is to have each batch of product tested for banned drugs using the same strict protocols and machinery as is used by the IOC accredited labs that process most of the drug tests done on athletes world wide. Unfortunately this is only done by a handful of companies world wide, and even then on a small number of products.

In an unprecedented move, MD+ has had the present batch of all its nutritional supplements analyzed using WADA/USADA/IOC/USOC compatible drug testing protocols. The GC/MS analytical results show unequivocally that the following products are free of all banned substances, including anabolic steroids, prohormones and stimulants, for the following federations. The differences in the list of safe products for different sporting bodies are due to differences between the WADA/IOC banned substance list, which most amateur and professional sports adhere to, and the NCAA, which bans one of the ingredients in LipoFlush, and possibly Resolve as it has a caffeine limit, and the NFL which bans one of the ingredients in LipoFlush. Because of the differences in the different sporting bodies, I've listed which of my supplements are 100% safe for various athletes to use.

MD+ List of Tested and Safe Nutritional Supplements for Drug Tested Athletes

WADA/USDA/IOC/USOC Certified Supplements

The current batches of the following MD+ supplements have been found to be free of any banned drugs and completely safe for Olympic and other athletes that are governed by the IOC and USOC with drug testing done using WADA and USADA protocols. This includes all professional sports with the exception of the NFL, and all amateur sports with the exception of the NCAA.

Amino	Joint Support	Regulate
Antiox	LipoFlush	ReNew
Creatine Advantage	MRP LoCarb	Resolve
EFA+	MVM	Resolve Competition
GHboost	Myosin Protein	TestoBoost
InControl	Power Drink	
InsideOut		

NFL Certified Supplements

The only difference between IOC and NFL banned drugs is that synephrine is banned (contained in citrus aurantium, zhi shi, bitter orange) by the NFL, but not the IOC.

The current batches of the following MD+ supplements have been found to be free of any banned drugs and completely safe for NFL athletes.

Amino	Joint Support	ReNew
Antiox	MRP LoCarb	Resolve
Creatine Advantage	MVM	Resolve Competition
EFA+	Myosin Protein	TestoBoost
GHboost	Power Drink	
InControl	Regulate	
InsideOut		

NCAA Certified Supplements

Caffeine levels are considered positive for doping if for caffeine if the concentration in urine exceeds 15 micrograms/ml. Synephrine is banned (contained in citrus aurantium, zhi shi, bitter orange)

Amino	InControl	Regulate
Antiox	Joint Support	ReNew
Creatine Advantage	MRP LoCarb	Resolve Competition
EFA+	MVM	TestoBoost
GHboost	Myosin Protein	
InsideOut	Power Drink	

The MD+ store (www.mdplusstore.com) has separate sections for IOC, NCAA and NFL drug tested athletes containing only the items that have been analyzed as safe for that athlete.

Benefits of Nutritional Supplements for Body Composition and Increasing Exercise and Sports Performance

Supplements can help you in attaining your specific body composition, training and performance goals in a variety of ways including increasing your anabolic drive and workload capacity and decreasing your recovery time.

Endurance or Workload Capacity

This component involves your ability to continue training throughout a workout. Increasing your workload capacity will give you the energy and stamina necessary to get through the workout. If your capacity is limited here, and you don't have the energy, endurance or concentration necessary to train hard throughout the workout it won't matter how well you're managing the other components of the model. Your diet may be excellent. You may even be training properly several days a week, but if you don't have the overall energy and muscle endurance for a productive workout, you're not going to experience maximal progress or muscle growth.

Recovery

This component involves your ability to recover properly between both workouts and sets. The goal here is both to insure that the body recovers fully from the stimulus of exercise and reduce the amount of time necessary for that recovery. Recovery is critical to muscle growth. Immediately after a workout, your body has to go through the process of recovery. Until your body can recover, it can't grow. Your body has to return to a state where it has recovered from the catabolic process and productive protein synthesis can occur. The sooner you recover from a workout, the sooner your body can begin to respond to it and adapt by adding muscle.

When you don't recover from workouts, you also can go into chronic overtraining. You'll begin to lose muscle instead of gaining it. In the gym, you'll find yourself lacking the energy to do further sets at maximum ability. Even if you do retain the energy to get through a workout without losing effort, the body still won't respond with the kind of adaptation you want: more muscle.

Certain supplements can have a very strong effect on lowering recovery time and increasing muscle growth. Supplements targeting recovery also can help you handle additional stress in your training. If you want to extend workouts from a few to several days a week (a la IART blitzing), supplements can help you accelerate recovery to make those workouts productive. Similarly, if you're training for another sport with bodybuilding, supplements might spell the difference between being able to train for both effectively and having the dual training sabotage progress in both areas.

Anabolic Drive

By 'anabolic' I mean the ability of the body to produce more muscle tissue. 'Anabolic drive' involves the natural production of testosterone, growth hormone (GH), insulin like growth factor I (IGF-I), insulin, thyroid, cortisol and other hormones and growth factors that are involved in muscle growth. For athletes it refers to the body's ability to increase its anabolic (or muscle producing) response to exercise, nutrition, supplements and other factors. In the case of supplements, those targeted toward increasing the production of testosterone, growth hormone, insulin and decreasing cortisol will result in both anabolic and anti-catabolic effects and will maximize the anabolic drive.

Anticatabolism

There are several ways to decrease the breakdown of muscle tissue, both during and after exercise and, thus, provide potent anticatabolic effects (for bodybuilders, anticatabolic really means much the same as protein sparing, since sparing protein involves decreased muscle breakdown). There are a lot of substances that decrease muscle breakdown and, thus, have anticatabolic effects. For example, taking in adequate carbohydrates is known to have a protein sparing effect.

Although the concept of anticatabolism is simple, there is some confusion, however, as to what mediates the anticatabolic response. Some people are using the term anticatabolic interchangeably with the term anti-glucocorticoid. This can lead to misconceptions, even though in many cases an anticatabolic effect may be mediated by decreasing the effect of glucocorticoids on muscle tissue. However, there are other factors and influences to consider when a certain substance or regimen produces an overall anticatabolic effect.

As well, the popular notion of cortisol being solely a catabolic hormone is not accurate. Too much cortisol can certainly be a problem, but cortisol is a necessary hormone, and in athletes it plays a role in decreasing muscle stiffness and inflammation. Without normal and even somewhat elevated cortisol levels we couldn't even exercise properly, and so it wouldn't matter what training, diet, drugs and nutritional supplement regimens we were following. In fact, in some sports short cycles of synthetic cortisol-like drugs are used to enhance both strength and endurance.

However, chronically elevated cortisol levels have a catabolic effect on muscle and decrease the effect of the anabolic hormones. Now we do need cortisol, so that using drugs to decrease endogenous basal cortisol levels can be dangerous and counter productive. Yet, decreasing or attenuating the rise in cortisol seen after exercise can give you an added anabolic boost by decreasing muscle tissue breakdown and increasing AA influx and utilization by muscle cells.

But why all the fuss about decreasing muscle breakdown? Aren't we interested in increasing protein synthesis and building muscle up? Well, yes and no. Decreasing muscle breakdown can be just as important as increasing protein synthesis. It all depends on how the two processes divvy up the protein shares and affect the overall protein balance.

Protein balance is a function of intake relative to output (utilization and loss). Body proteins are in a constant state of flux with both protein degradation and protein synthesis constantly going on. Normally, these two processes are equal with no net loss or net gain of protein taking place. Protein intake usually equals protein lost. However, if protein synthesis (anabolism) is greater than protein degradation (catabolism), then the overall result is anabolic with a net increase in body protein. If protein degradation is greater than protein synthesis, then the overall result is catabolic with a net decrease in body protein.

Decreasing catabolism by using appropriate methods and supplements can have dramatic effects on increasing protein synthesis and muscle mass. One of the ways to decrease the catabolic process is to decrease the secretion or effects of the glucocorticoid hormones, the most important being cortisol, a catabolic hormone that can, if inappropriately elevated, be counterproductive for bodybuilders and other athletes who are trying to increase their muscle mass.

There are a number of ways to manipulate exercise and diet to maximize the overall anabolic effect of a substance or activity. For example, if a compound or activity increases both protein synthesis and protein breakdown (as many do), it might have a positive or negative anabolic effect. The overall effect is anabolic if the increase in protein synthesis is greater than the increase in protein breakdown, and catabolic if protein breakdown exceeds protein synthesis. It would also be useful to quantify the anabolic effect, so that we can tell which substances and procedures would be more effective than others for increasing muscle mass and strength.

On the other hand, a substance or activity may decrease both protein breakdown and synthesis. Again the anabolic effect would depend on the degree that it does either one. If we examine clenbuterol we see that some studies show that while clenbuterol has potent anticatabolic properties, it also, to a lesser extent, suppresses protein synthesis. The overall effect, however, is anabolic since the net result of the decreased protein breakdown and decreased protein synthesis is an increase in muscle protein content.

Substances that decrease catabolism can have anabolic effects on muscle. But like growth hormone stimulation, many nutritional supplements, drugs and even lifestyle changes can have anticatabolic effects. Increasing dietary calories, increasing dietary protein, using branched chain amino acids, glutamine, alanine and other amino acids, vitamin C, beta carotene and other antioxidant vitamins all have been shown to lessen muscle breakdown.

Maximizing Muscle Mass by Manipulating the Hormones

Although it's tricky, if we use supplements properly we can increase insulin, GH, and IGF-I and testosterone levels, and decrease cortisol levels and other anticatabolic factors at specific times so as to maximize increases in lean body mass. It's important to either create an anabolic hormonal cascade or to make proper use of natural fluctuations and spikes in the endogenous anabolic hormones. The end result is an anabolic and anticatabolic effect, both in and around the time of training, in the critical post training period, and at other times of the day.

It's difficult, however, to get the hormones and nutrients synchronized so that they can work together synergistically. For example, the problem with natural growth hormone spikes is that they almost always occur in the postabsorptive phase where exogenous nutrients are in short supply and are not available to muscle cells. The main actions of GH under post absorptive conditions is, thus, anticatabolic. That is, GH decreases muscle protein catabolism, but has little anabolic action since there is relatively little influx of amino acids into the cells. As well, at these times there is very little insulin effect because there's no stimulus for insulin release.

Ideally all the anabolic and anti-catabolic effects of the various hormones should be maximized (through a synergistic action of testosterone, insulin, GH, IGF-I and thyroid), and the catabolic effects of cortisol minimized at a time when the availability of nutrients is maximal. Creating this ideal environment for muscle growth requires both knowledge and dedication. This is one of the main reasons that going natural, unless you are precise as to your timing of training, meals and supplements, can be so discouraging. When drugs are used this is not a problem. For example, the use of anabolic steroids and testosterone esters gives you a constant high level of testosterone with no dips or low level intervals. Then by using exogenous GH and insulin, you can elevate all three anabolic hormones at the same time, when in fact this is not usually seen in those who don't use drugs. Add to this mix a large and ready supply of amino acids and other nutrients and you have a recipe for maximal muscle growth, albeit drug induced.

The idea behind the targeting of supplements (along with appropriate training and diet) is to do all this naturally. However, unlike the use of drugs, you have to be precise in your implementation of supplements and know exactly what you're doing in order to create and make maximum use any possible synergism of elevated levels of endogenous testosterone, GH, insulin, thyroid and IGF-I, and decreased levels of cortisol.

When and How To Take Them and How Much To Take

Because we're all different and have disparate needs, it's necessary to fine tune your supplement intake. Like everything else in life, you have to adapt whatever you're doing or taking so that it works best for you. There's both a science and an art to taking supplements. The science involves knowing what the supplements do and how they might benefit you under certain conditions, and provides possible dosages and times that theoretically will maximize their effects. The art involves finding out just what works for you and in customizing these supplements for your own needs and metabolism.

The bottom line is to try out potentially useful supplements and determine if the benefits are worth the cost. That means experimenting with various combinations of supplements under different conditions, keeping such variables as diet and training relatively constant so that you can determine the effects of the supplements by themselves. You can't find out what's working and not working if you change everything at the same time. For example, dramatically changing your diet and training routine won't tell you much about some new supplement that you're trying out. There are just too many changes taking place to allow you to figure out what is doing what. This is one of the reasons I formulated a line of supplements that take the guesswork out of using supplements.

In the rest of this article I'll deal with ways to maximize performance and body composition by using various supplements in my lineup.

Boosting Endogenous Growth Hormone – The Better Way

The Problems with Exogenous Growth Hormone

Growth hormone levels decline as you get older. And athletes have found that increased levels of growth hormone help to optimize body composition, thus increasing muscle mass and decreasing body fat. However there's a lot of controversy over using growth hormone injections because of the potential side effects. But there's a better way. Increasing your own natural endogenous levels of growth hormone is safer and in the long run more effective for increasing growth hormone levels and maximizing body composition than using exogenous GH. There are two main reasons for this view.

First of all, the use of recombinant or synthetic GH (the only kind available since 1985 when the possibility of prion infection resulting in Creutzfeldt-Jakob disease,⁵ a variant of mad cow disease, halted the use of GH harvested from the pituitaries of cadavers) only provides limited GH exposure. That's because human GH represents a family of proteins rather than a single hormone. In fact, the circulation contains over a hundred GH forms. And because we have yet to discover enough about the various forms, the net biological activity of this mixture is difficult to predict since the exogenous recombinant GH represents only 20 percent or so of the mix.

Thus far, most of the research largely has been confined to monomeric 22K, the same GH that is available for exogenous use. However, while it is certainly effective for its original intended purpose, namely growth promotion, it's not known if it's sufficient for optimal growth and body composition. It's unlikely that it can fulfill all the functions of the GH family that are naturally present in the body. As well, the use of one GH variant, as is the case with GH injections, likely decreases the production of the other variants in the body⁶ thus limiting the normal biological activity of GH. This very fact has been explored as a means of detecting GH use by athletes.⁷

The second reason is that the use of exogenous GH shuts down your own growth hormone production. And that's a bad thing since it takes away some of the natural variations in GH that takes place in the body. For example it's been shown that the use of GH, even in low doses, decreases the natural GH peak that occurs a few hours after you fall asleep.⁸ In my view it's the peaks of GH levels in the body that stimulates the anabolic and fat expending effects of GH. If you lower these peaks, you're not getting the most from your GH.

But it's worse than that. When you use exogenous GH it shuts down your own natural GH producing machinery. And it takes time for your body to ramp up this machinery once you discontinue the GH injections. In some cases, with extended use (as is sometimes the case in athletes who abuse anabolic steroids and find that their testosterone levels are permanently depressed), it's possible that the natural production of GH may be impaired permanently, thus making it necessary for you to go back on the injections to feel normal.

Boosting Endogenous GH

None of this happens when you effectively boost your natural endogenous GH levels. First of all you produce the full gamut of growth hormones, and secondly, by ramping up your GH producing machinery rather than shutting it down it's never going to fail you even when you're not ramping it up. All that will happen is that your levels will go back to what they were before you started ramping it up. The bottom line is that boosting endogenous GH production is more natural, more effective, and has considerably fewer (actually nil) side effects compared to the use of injectable GH.

MD+ GHboost version IV

The best way to ramp up your endogenous GH production is by using my GHboost. Not only is it the most effective GH booster on the market, but it does much more, including increasing IGF-I levels and insulin release and sensitivity to give you a triple whammy for maximizing body composition.

The combination of increased GH, IGF-I and insulin levels results in a synergistic anabolic effect on muscle while at the same time maintaining significant fat burning effects since the action of GH and IGF-I minimize insulin's effects on body fat, but maximize its anabolic effects. For more information on GHboost and the specifics on each of the ingredients go to www.GHboost.com.

Boosting Testosterone - Naturally

It seems everywhere you look these days you're hit with the testosterone hysteria. It's either about athletes using anabolic steroids and prohormones, or about the use of testosterone for replacement therapy. In a way we're talking about the same thing. In both cases the hormones used are made synthetically and used like a medication. And in both cases their use shuts down the hypothalamic-pituitary-testicular axis (HPTA) that controls testosterone production on the body.

And so, instead of helping stimulate testosterone production, the use of testosterone and anabolic steroids decreases the natural production of testosterone and basically shuts down your internal machinery for making testosterone. Not only does it decrease natural testosterone levels in the body, but it also decreases the levels of many other hormones along the testosterone metabolic pathway. This creates two separate problems.

First of all, shutting down your natural production of testosterone can lead to problems once you go off whatever you're taking. In some cases testosterone levels never even come close to recovering the pre-androgen use levels, and the only alternative, if the system can't be 'kick started' to produce testosterone, is to go back to taking testosterone or anabolic steroids. The second problem has to do with the disruption of the natural hormonal rhythms and levels of many hormones in the body, including testosterone and several other hormones. This can lead to many problems including paradoxically the loss of sex drive.

On the other hand, increasing endogenous (developed within the body) hormone production avoids the problems associated with exogenous hormone use. By promoting the natural production of the hormone within the body, you accentuate the natural testosterone producing machinery, so that you're not cutting out the middle men, and you won't have any problems with your sex drive or plummeting testosterone levels when you stop.

MD+ TestoBoost V3.0

TestoBoost is by far the most powerful natural testosterone booster, and libido and sex drive enhancer on the market today. Version 3 is the second reformulation of the original TestoBoost, which came out in February of 2000. Each version has been improved by taking into account new research, my own clinical work, and feedback from those who used it.

The original formula laid down the base for what I wanted to achieve for TestoBoost, and that was to increase testosterone levels and sex drive naturally in both men and women. The pathways that I targeted included stimulating all the relevant areas of the hypothalamic-pituitary-testicular axis (HPTA) through several independent mechanisms, and to decrease any potential side effects from increases in estrogen and dihydrotestosterone. Subsequent versions of TestoBoost, while keeping the base intact, added several ingredients that I felt would further increase testosterone levels and sex drive and further decrease any potential side effects.

Synergy 2006

The basis of the formula in TestoBoost, and in all the MD+ formulations is to involve all possible pathways that lead to the desired effects, and to use multiple ingredients that work together to produce superior results. In the case of TestoBoost the desired effect was an increase in basal and elevated testosterone levels in the body, a decrease in counter productive elevations in cortisol, and a salutary effect on overall health, libido and sex drive. This is accomplished by using a variety of ingredients that impact on all the possible pathways that are involved in maximizing testosterone production, including:

- Increasing luteinizing hormone (LH) production.
- Increasing the effect of LH.
- Increasing testicular steroidogenesis directly.
- Decreasing inhibitors of steroidogenesis.
- Providing vitamins and minerals that might be frankly or marginally deficient and thus not allowing the full production of testosterone - e.g. magnesium, zinc, B6.
- Increasing peripheral formation of testosterone.
- Decreasing peripheral formation of dihydrotestosterone and estrogens or blocking their effects.

As well, other compounds that have been shown to have effects on sexual desire and performance can be used in the mix. On top of this TestoBoost contains bioperine, which significantly enhances the bioavailability of supplemented nutrients through increased absorption. As a result TestoBoost will:

- Increase testosterone
- Block excessive estrogen production
- Block excessive production of dihydrotestosterone
- Enhances prostate health in men
- Increase libido and sex drive in both men and women
- Provide a potent anabolic effect
- Decrease body fat
- Provide substantial health benefits

The bottom line is that TestoBoost v3.0 is the most effective testosterone booster on the market today. For more information on TestoBoost and the specifics on each of the ingredients go to www.TestoBoost.com.

The Mind-Muscle Connection: Taking Your Training to the Next Level

In order to maximize the results you get from your training, you have to be primed both physically and mentally.

Mind Control

While it's important for your body to be ready to train to maximum capacity, if your head's not into it, you're not going anywhere. That's because it's impossible to make that extra effort if the body's ready but the mind isn't. You'll end up just going through the motions and not pushing yourself enough to make any progress.

Effective training requires the right frame of mind and the ability to focus and concentrate on just your training and nothing else. The right frame of mind means that you are up for the training and raring to go. While that's important, it's only the first step.

Synergy 2006

To make it work you also have to be able to concentrate and focus on your training and nothing else. That means being able to block out all distractions and ignoring all the stresses in your life, at least while you're training. Unfortunately, this is easier said than done, and what often happens is that your mind sabotages your good intentions.

Wouldn't it be great if you could just flick a switch and get your mind in gear for training? Or switch yourself off to everything else except your training? Well, you can. And I'll show the easiest and surest way to do it.

InControl

InControl is formulated to influence several pathways in the brain to improve concentration and focus, and decrease the counter productive effects of stress and distractions. InControl not only increases focus and concentration, and decreases distractions, it also increases neuromuscular functioning, which in turn increases exercise performance and intensity. It acts as a musculoskeletal, neuromuscular and central nervous system optimizer.

InControl will put you back In Control by helping you to:

- Focus your mind on your training
- Get charged for your workouts but relaxed about everything else
- Block out all distractions
- Feel a sense of inner calm and purpose
- Increase confidence
- Enhance exercise performance and results

With InControl you'll spend less time in the gym and make your training more productive.

Resolve for your body

When your body and mind are in synch, working together toward the same goals, success comes more easily and surely. As stated, InControl will get you mentally ready and able to train effectively. But that's only half the equation. You still need to prepare your body properly to make the best use of your improved mind control.

Resolve represents a new paradigm in pre-training supplements. Resolve provides anticatabolic and anabolic effects by increasing levels of testosterone and growth hormone, decreasing protein breakdown, increasing protein synthesis and providing cell volumizing effects that increase muscle growth. Resolve also maximizes energy levels, ATP and phosphocreatine (PC) functioning, as well as gluconeogenic, TCA Cycle flux, and other processes, allowing for more strength and stamina.

As well, it provides potent thermogenic and fat loss properties, increasing fat breakdown and utilization and decreasing fat buildup. And finally it exerts a potent antioxidant, buffering and cytoprotective effects to decrease muscle tissue injury and soreness and improve recovery.

Resolve:

- Increases insulin sensitivity
- Increases GH and IGF-I levels
- Increases testosterone secretion

- Decreases serum cortisol
- Increases both aerobic and anaerobic energy production
- Increases neurotransmitter levels in the brain
- Decreases central and peripheral fatigue
- Increases nitric Oxide production (NO)
- Provides buffering of lactic acid production
- Decreases inflammation and muscle and tendon damage
- Maximizes macronutrient metabolism
- Increases protein synthesis
- Increases the breakdown and oxidation of body fat
- Decreases markers of heart disease and inflammation

InControl for Your Mind and Resolve for Your Body

If you're serious about your training and want maximum results, then you need to use Resolve and InControl as your pre-training Mind-Body combo. InControl and Resolve are currently being used by bodybuilders and other athletes, at all levels. Once they try the combo they get such fantastic results that they never train or compete without it. For more information on both InControl and Resolve, and my complete line of nutritional supplements go to: www.mdplusstore.com

Weight Loss is an Oxymoron

Weight loss is an oxymoron. Who really wants to just lose weight? That means losing weight from all of the various tissues in your body, including muscle and bone. That's not what people want when they say they want to lose weight. What they really want to lose is FAT, not muscle. After all, maintaining or even increasing muscle mass not only makes the body look and function better, but it makes it easier to lose body fat and keep it off.

It's important to realize that fat loss is not simply a matter of exercising more and eating less, although these are part of the fat loss equation. Effective fat loss also means guiding your body down the right metabolic paths where you target fat breakdown and spare muscle. It's also more than just breaking down body fat. You also have to do something with that body fat so it doesn't simply reform. That means getting rid of it by increasing the burning of this fat for fuel and flushing some of it right out of the body.

Simple as that sounds, it's not what most weight and fat loss supplements do. Many of the formulations on the market today, including the once popular ECA stack (combinations of ephedra, caffeine and ASA) formulations, will increase fat breakdown (lipolysis) but do not dispose of this fat efficiently, and in most cases the fat is reformed and just goes right back to the same body areas. Also the weight loss and fat loss formulations miss the mark when it comes to using cutting edge research studies to solve the fat loss equation.

Besides increasing lipolysis and making sure you get rid of that released fat, it's also important to make sure that the weight you lose is fat and not muscle. Cutting calories can lead to weight loss but some or even most of this weight loss may, in fact, represent muscle and other tissues. The trick to losing weight is to lose mostly fat so that when you're down to your target goal you look and feel good.

It's also important to keep making progress. Anyone can lose weight at first but it's a real challenge to keep it up. That's because your body reacts to the imagined threat of starvation by instituting some ages old survival mechanisms, mainly slowing the metabolic rate so you can get by on fewer calories, and increasing hunger so you can take full advantage of any food that you find. Even though you're deliberately trying to lose weight to improve your looks and health, your body looks at the calorie reduction as a sign of impending starvation and adjusts accordingly.

And so, unless you understand what's happens when you cut back on your calories, and make the appropriate adjustments, including taking the right supplements, you can reach a plateau fast. Put all this together and it's no wonder that most people find it impossible to lose any significant amount of fat, to keep any fat they do lose from coming back on, and to prevent loss of muscle while they're dieting.

Effective Fat Loss

In my mind, the most important steps to effective fat loss, besides reducing calories and exercise, are:

- Increasing fat release from the fat stores in the body, including cellulite – this is done by triggering lipolysis via various mechanisms including triggering the right signaling systems (for example by selectively increasing cyclic AMP levels in fat cells either directly or indirectly) and maintaining thyroid hormone levels and activity.
- Decreasing fat formation or lipogenesis. This is done by using various ingredients that decrease the stimulus and the enzymes that support lipogenesis. Decreasing inflammation, insulin resistance and cortisol secretion are important in both increasing fat release and decreasing fat formation.
- Increasing the elimination of the released fat from the body by burning it up and by flushing it out. Increasing the burning of fatty acids is done by increasing the metabolic rate (including normalizing thyroid hormone levels, increasing T3 formation and effect, and increasing UCP3 uncoupling protein – these also increase lipolysis), increasing the transport of fatty acids into the mitochondria (the fat furnaces of the body) and by priming and optimizing the functioning of the TCA cycle so that beta oxidation and the efficient utilization of the basic 2 carbon groups that result from fatty acids metabolism. Increasing the removal of fat from the body is done by increasing the amount of fatty acids that are dumped into the urine and flushed out of the body.
- Targeting fat loss and not muscle loss. This is done by increasing levels of certain hormones and factors, such as IGF-I that have anti-catabolic effects.
- And counteracting the metabolic effects of dieting, i.e. increased hunger and decreased metabolic rate.

MD+ LipoFlush Version III

And that's what LipoFlush is all about. LipoFlush does it all and then some because it attacks the problem of getting rid of body fat in innovative ways. LipoFlush not only has all the 'usual suspects' – the fat loss ingredients that are in all the other high profile weight and fat loss supplements, but it also has ingredients, and synergistic combinations of ingredients not found anywhere else.

The natural ingredients in my supplements work synergistically at many sites to produce the desired fat loss effect, without side effects and with health benefits to boot. Targeting various ingredients to affect various aspects of pathways that lead to specific effects, as against violently disrupting a specific pathway as some drugs do, is a much more natural and effective way to go.

Summary of My MD Line of Targeted Nutritional Supplements

Research Driven, Bio-Engineered Formulas Tailored To The Human Body To Optimize Health and Fitness, and Produce Maximum Body Composition and Strength Results.

The Supplements Are Broken Down Into Four Basic Categories Depending On Your Needs.

Foundation Supplements

These are supplements that should be used by anyone who's into any form of exercise, dieting or simply staying healthy. They offer the foundation upon which you can achieve your health, fitness, body composition, and performance goals.

MVM

www.MDMVM.com

Multiple Vitamin & Mineral Formula



MVM is a comprehensive, specially balanced, multiple vitamin and mineral formula, with added ingredients, designed to provide full spectrum nutrition to anyone who diets or exercises.

MVM – a comprehensive, specially balanced multiple vitamin and mineral formula that includes ingredients and compounds that reflect the latest research information. MVM is designed to provide full-spectrum front line nutrition with an emphasis on optimizing health and the needs of athletes and anyone who exercises.

EFA+

www.MDEfaPlus.com

Essential Fatty Acid Formula Version III



EFA+ is an enhanced essential fatty acid formula containing optimum levels of the essential fatty acids as well as several other additive and synergistic ingredients. The complex, scientifically based formulation provides much more than other essential fatty acid products.

EFA+ - a complete essential and synergistic fatty acid formulation designed to provide the full gamut of all the essential fatty acids and other ingredients such as CLA that are so important to optimizing your metabolism, maximizing the anabolic and fat-burning effects of exercise, tuning up the immune system and increasing recovery.

ANTIOX

www.MDAntiox.com

Cutting-Edge Antioxidant Formula



Antiox, with its synergistic blend of powerful antioxidants, provides targeted antioxidant protection to all tissues in the body including the musculoskeletal and central nervous systems, and the liver.

Antiox – a complex formulation that provides targeted antioxidant support and immune enhancement to the body and especially to the musculoskeletal and central nervous system and liver. Besides the usual vitamin and mineral antioxidants, Antiox also contains glutathione, the most important, all-purpose, endogenous antioxidant in our bodies, alpha lipoic acid, co-enzyme Q10, quercetin, lycopene, resveratrol and grape seed extract.

Mass and Strength Supplements

These supplements are for the serious athlete who is after maximum muscle mass and strength.

Combo Supplements

EXERSOL

www.Exersol.com

A Three-Phase Workout System For The Power Athlete



Exersol Power is the most advanced, three-phase exercise-orientated nutritional support system ever formulated. Exersol Power gives you the peace of mind that comes with knowing you have everything you could possibly ever need to maximize the anabolic and fat burning effects of exercise. Exersol Power allows you to train harder and more effectively, making the training you do before, during and after, that much more productive.

Exersol is the only supplement package that takes the guesswork out of what supplements to use before, during and after training. Besides providing the most effective training supplements, Exersol gives you the peace of mind that comes with knowing you have everything you could possibly need to maximize the anabolic and fat burning effects of exercise. Exersol, by providing what you need before, during and after exercise, allows you to train harder and more effectively and make your training more productive.

The three formulations that make up Exersol can also be used on their own depending on your needs.

Synergy 2006

- **Resolve or Resolve Competition** – Pre-workout Primer that optimizes the anabolic and fat burning effects of exercise.
- **Power Drink** – The Anabolic Fat Burning Rehydration Drink you use during training provides the nutrients necessary to maximize muscle mass by increasing the anabolic and decreasing the catabolic effects of exercise, and to decrease body fat.
- **Amino** – The Anabolic Amino Surge that quickly kicks protein synthesis into high gear by providing an immediate square surge of amino acids and insulin in that immediate post-exercise window of opportunity.

NITABOL

www.NitAbol.com

The Complete Night Time Anabolic / Anticatabolic / Fat-Burning Combo For Men and Women



The Complete Night Time Anabolic / Anticatabolic / Fat-Burning Combo For Men and Women. **NitAbol** involves 3 formulations to increase muscle mass and decrease body fat while you sleep.

NitAbol involves 3 formulations to increase muscle mass and decrease body fat while you sleep. NitAbol counters the nighttime postabsorptive catabolic effects, increases recovery, fat burning and protein synthesis. Each of the formulations below can also be used on their own depending on your needs.

- **TestoBoost** – Increases Testosterone Levels naturally without the use and side effects of the prohormones.
- **GHboost** – Naturally increases growth hormone and IGF-I to above physiological levels.
- **Myosin Protein Complex** – Provides long lasting nighttime protein nutrition that increases protein synthesis, decreases muscle breakdown, and promotes body fat loss all night long.

Individual Supplements

CREATINE ADVANTAGE

www.CreatineAdvantage.com

Maximizes Strength and Performance



Creatine Advantage, besides containing creatine, also contains several ingredients that greatly enhance the anabolic and performance boosting effects of creatine, and provide other added benefits on their own on energy, strength, endurance and recovery.

Creatine Advantage – Keeps the energy system in high gear by not only increasing endogenous levels of phosphocreatine, but also by optimizing the glycolytic and TCA cycle energy processes. The added amino acids and dipeptides allow a natural increase in the absorption and utilization of creatine without carbohydrates, and increase the volumizing, anticatabolic and anabolic effect of the formula.

MYOSIN PROTEIN

www.MyosinProtein.com



Myosin Protein, the most advanced, synergistic blend of the highest quality protein powders, peptides and amino acids on the market today, contains the precise amino acid mix to maximize protein synthesis, decrease muscle breakdown and enhance body composition and athletic performance.

Myosin Protein Complex, unlike whey protein and the other one-dimensional proteins on the market today, provides you with both short and long-term amino acid spikes and keeps you in an anabolic, fat burning state for several hours.

RESOLVE

www.MDResolve.com

Advanced Pre-Workout Anabolic Primer



Resolve, the ultimate pre-training supplement, primes your neuromuscular system and metabolism so your body can make the best use of the anabolic and fat burning effects of exercise.

RESOLVE COMPETITION

Advanced Pre-Workout Anabolic Primer



Resolve Competition is specially formulated for athletes who are subjected to mandatory drug testing, and in recognition that it is inappropriate for some people to take ephedrine and yohimbe. Resolve Competition increases protein synthesis, decrease protein breakdown, increase fat burning, and increase energy through its effects on your body's metabolism and hormones.

Resolve and Resolve Competition, increase energy levels and provide anticatabolic and anabolic effects by increasing levels of testosterone and growth hormone, decreasing protein breakdown, increasing protein synthesis and providing cell volumizing effects that increase muscle growth. They also maximize ATP and phosphocreatine (PC) functioning, as well as gluconeogenic and other processes, allowing for more strength and stamina. As well, it provides potent thermogenic and fat loss properties, increasing fat breakdown and utilization and decreasing fat buildup. And finally they exert a potent antioxidant effect to decrease muscle tissue injury and soreness.

- Optimizes the anabolic and fat burning effects of exercise.
- Decreases muscle breakdown and increases protein synthesis.
- Supplies increased energy for training.

POWERDRINK

www.MDPowerDrink.com

Advanced Anabolic Training Drink



Power Drink, by providing all the necessary ingredients to feed working muscles and shifting the use of body fat as the energy source for training, dramatically increases the positive effects of training, allows you train longer and harder, and increases recovery.

Power Drink is a revolutionary new concept in training drinks and provides the nutrients necessary to maximize muscle mass by increasing the anabolic and decreasing the catabolic effects of exercise, and increasing the mobilization and oxidation of body fat. Power Drink also contains several anabolic and cytoprotective amino acids, including arginine, alanine, and taurine, glutamine peptides, creatine, and ribose. As well Power Drink contains electrolytes and other ingredients that will replace and replenish nutrients and fluid lost through exercise, prevent muscle cramps, and increase training time and efficiency.

- Maximizes training energy and efficiency.
- Increases training effort and energy.
- Maximizes muscle mass and increases fat oxidation.
- Protects muscle from injury.

AMINO

www.MDAmino.com

Cutting-Edge Amino Acid Formula



Amino, the most advanced cutting-edge amino acid formulation on the market today, maximizes protein synthesis by providing you with a quick and potent boost of anabolic and anticatabolic hormones and amino acids.

Amino – Amino, the most advanced cutting-edge amino acid formulation on the market today, maximizes protein synthesis by providing you with a quick and potent boost of anabolic and anticatabolic hormones and amino acids. The high systemic levels of amino acids and other synergistic ingredients (including my research based Amino Proprietary Complex) provided by Amino has a direct effect on increasing protein synthesis, and at the same time increases systemic levels of the potent anabolic hormones and growth factors, including insulin, testosterone, growth hormone and insulin-like growth factor I (IGF-I). Amino can be used at any time, especially in the post-training window of opportunity.

TESTOBOOST

www.TestoBoost.com

Testosterone Boosting Formula



TestoBoost, with its complex mix of ingredients meant to affect multiple anabolic and anti-catabolic processes in the body, will naturally increase testosterone levels, muscle mass and strength, and boost sex drive.

TestoBoost maximizes your anabolic potential by physiologically elevating your natural testosterone levels. Not only does TestoBoost contain natural ingredients that increase testosterone formation, it also has ingredients that decrease any potential side effects from conversion of testosterone to estrogens and dihydrotestosterone. By boosting testosterone, TestoBoost has beneficial effects on increasing muscle mass, decreasing body fat, and on fertility and impotence.

GHBOOST

www.GHboost.com

Growth Hormone Enhancer



GHboost effectively increases growth hormone (GH) secretion and tissue levels of the potent anabolic growth factor, insulin-like growth factor I (IGF-I), resulting in increased protein synthesis, decreased muscle breakdown and increased body fat loss.

GHboost, a research driven nutritional supplement, is a unique growth hormone stimulating product that increases growth hormone (GH) secretion more effectively than any other GH boosting product on the market. GHboost also increases serum and tissue levels of the potent anabolic growth factor, insulin-like growth factor I (IGF-I). Growth hormone and IGF-1 act together to increase protein synthesis, decrease muscle breakdown and increase body fat loss.

INCONTROL

www.MDInControl.com



InControl is formulated to influence several pathways in the brain to improve concentration, focus, memory and cognition, and to decrease anxiety and its associated physical effects.

InControl is formulated to influence several pathways in the brain to improve concentration, focus, memory and cognition, and to decrease anxiety and its associated physical effects such as rapid heart beat, sweating, nervousness, shakiness, etc. InControl not only increases focus and concentration, and decreases distractions, it also increases neuromuscular functioning, which in turn increases exercise performance and intensity. It acts as a musculoskeletal, neuromuscular and central nervous system pre-workout optimizer.

Weight and Fat Loss Supplements

These supplements can be used for decreasing body fat while maintaining muscle mass and strength and for maximizing weight and fat loss.

LIPOFLUSH

www.LipoFlush.com

Revolutionary Fat Loss Formula



LipoFlush version. III is a research-driven, synergistic blend of natural ingredients designed to dramatically decrease body fat, increase energy levels, preserve skeletal muscle, and provide major health benefits.

MRP LOCARB

www.MRPLoCarb.com

The Ultimate Anabolic, AntiCatabolic, Fat Burning, Meal Replacement Shake



MRP LoCarb, the ultimate low carb, high protein meal replacement, is also engineered to increase the anabolic hormones and decrease the catabolic ones, increase fat burning, increase energy, and provide the body with an enhanced immune response to help recovery and combat overtraining.

METABOLIC

www.MDMetabolic.com

Advanced Anabolic and Fat Loss Primer



Metabolic, by normalizing and optimizing metabolism and macronutrient utilization (the use of fats, carbs and protein) as well as the body's hormonal balance, increases the anabolic and fat burning effects of exercise, helps in fat and weight loss, and combats fatigue, wear and tear on the body, stress and hormonal dysfunction.

RENEW

www.ReNew.com

Advanced Immune System Enhancer



ReNew, by normalizing the metabolic processes in the body, supporting the central nervous and immune systems and enhancing thyroid, testosterone, GH, insulin, and hepatic and adrenergic function, combats physical and mental stress, fatigue, and over-training.

REGULATE

www.MDPlusStore.com

Fiber and Probiotic Supplement



Regulate is a potent blend of natural soluble and insoluble fibers, plus probiotic ingredients, formulated for dealing with bowel irregularity, especially for those on lower carb diets, and for improving health.

MYOSIN PROTEIN

www.MyosinProtein.com



Myosin Protein, the most advanced, synergistic blend of the highest quality protein powders, peptides and amino acids on the market today, contains the precise amino acid mix to maximize protein synthesis, decrease muscle breakdown and enhance body composition.

CELLUSOL

www.Cellusol.com

The Six-Week, Three-Phase Cellulite and Weight Loss Solution



Cellusol is a three-phase supplement and the most advanced weight and fat loss formula ever. It has been formulated to accomplish maximum weight and fat loss, including cellulite, while at the same time minimizing the loss of muscle.

Cellusol 1-2-3 System – consists of 3 formulations that accomplish maximum weight and fat loss, especially cellulite, while at the same time minimizing the loss of muscle. This means that the weight you lose will be mostly bodyfat. The three formulations work in tandem to produce long-term results without developing tolerance or side effects. Cellusol consists of:

LipoFlush – **Body Composition and Fat Loss Formula** – LipoFlush version. III is a research-driven, synergistic blend of natural ingredients designed to dramatically decrease body fat, increase energy levels, preserve skeletal muscle, and provide major health benefits.

Metabolic – **Anabolic and Fat Loss Primer** – formulated to decrease hunger, increase metabolic rate, and optimize the body's hormones, including thyroid, growth hormone, testosterone, insulin and cortisone, in order to maximize the anabolic and fat burning effects of exercise.

ReNew – **Homeostatic and Immune System Enhancer** – formulated to enhance and stabilize weight and fat loss and allow the body to return to an optimal metabolic and immune state so that it is ready and able to make dramatic weight and fat losses.

Radical Weight Loss Diet Plans

The Radical Diet is the ultimate short-term diet plan meant for rapid weight loss. This rapid weight loss plan combines a very low calorie diet with my **Metabolic Diet**, along with the use of meal replacements and nutritional supplements that have been especially formulated for those on the Metabolic Diet. By going on this plan you should be able to decrease your body weight, mostly by way of losing excess body fat, by at least 30 pounds (and often more) in a two-month period. Three nutritional supplement options are also available, a **Beginner's**, an **Intermediate** and an **Advanced Plan**.

RADICAL DIET BEGINNERS

www.RadicalDiet.com



This is the Beginners version of the 'Radical Diet Loss Plan'; the ultimate short-term diet plan meant for rapid weight loss. The package includes the 'Radical Diet' eBook, as well as a month's supply of the bare nutritional supplement essentials to start the diet.

RADICAL DIET INTERMEDIATE

www.RadicalDiet.com



The package includes the Radical Diet eBook, as well as a month supply of vitamins and supplements, and a box of MRP LoCarb shakes.

RADICAL DIET ADVANCED

www.RadicalDiet.com



The 'Radical Diet Plan' is the ultimate short-term diet plan meant for rapid weight loss. The package includes the 'Radical Diet' eBook, as well as a month's supply of vitamins and supplements and a full complement of meal-replacement products.

Special Purpose Supplements

These supplements are specific for certain problems and needs.

JOINT SUPPORT

www.MDJointSupport.com

Joint Support and Muscle Ache Formula



Joint Support, formulated to support muscle, cartilage and joint function, helps maintain healthy joints, provides relief for musculoskeletal inflammation, pains and injuries, and aids in protection against the effects of excessive exercise and overtraining.

Joint Support – The premier formulation for dealing with overtraining, muscle soreness and injuries. With its dozens of synergistic ingredients, Joint Support decreases inflammation and maximizes muscle, connective tissue and cartilage repair and maintenance.



Joint Support has been the leader in joint support nutritional supplements since it first came out in 1999. Version IV represents the fourth evolution of this supplement. Each formulation is an improvement over the previous one, taking into consideration my experience with the previous version and the most recent research and findings, and applying these to make Joint Support even more effective. Version IV of Joint Support is scheduled to be released in mid August of 2006.

METABOLIC

www.MDMetabolic.com

Version III - Metabolic and Hormonal Optimizer



Metabolic is formulated to help regulate and optimize metabolic and hormonal processes that can be disrupted by exercise, dieting, stress and aging. By improving the metabolic and hormonal environment Metabolic improves body composition, helps get rid of body fat (especially cellulite) and increases energy levels and well being.

Metabolic –Optimizes the effects of thyroid hormone, decreases cortisone levels and increases levels of growth hormone and testosterone (in both men and women) along with increasing insulin sensitivity. These effects increase weight and fat loss while maintaining or even increasing muscle mass. As well, the hormonal environment created by Metabolic will allow cellulite, that stubborn dimpled fat, to be oxidized along with the rest of the body fat. Metabolic also counters the body's response to low calorie diets by decreasing appetite and increasing metabolic rate. As well, it increases the body's fat burning response and decreases muscle breakdown.

RENEW

www.MDReNew.com

Advanced Immune System Enhancer



ReNew, by normalizing the metabolic processes in the body, supporting the central nervous and immune systems and enhancing thyroid, testosterone, GH, insulin, and hepatic and adrenergic function, combats physical and mental stress, fatigue, and over-training.

ReNew - Enhances the immune system, normalizes metabolism, improves recovery, and naturally supports thyroid, testosterone, GH, insulin and the function of the adrenal glands. It's especially useful for dealing with chronic workout fatigue, overtraining, and burnout.

REGULATE

www.MDPlusStore.com

Fiber and Probiotic Supplement



Regulate is a potent blend of natural soluble and insoluble fibers, plus probiotic ingredients, formulated for dealing with bowel irregularity, especially for those on lower carbohydrate diets, and for improving health.

Regulate – A blend of several insoluble and soluble fibers and other compounds meant to keep the intestinal tract healthy by clearing up irregularity problems and providing probiotic essentials. Regulate is also useful as an appetite suppressant, to decrease cholesterol levels and increase natural insulin sensitivity.

INSIDEOUT

www.MDInsideOut.com

Skin, Hair and Nail Care From Within



InsideOut is formulated to support and enhance all the layers of the skin, hair and nails, and the supporting structures. The result is healthier, stronger, more vibrant skin, hair and nails.

InsideOut – Helps deal with skin problems regardless of the cause. That means it's effective in dealing with whatever ails your skin. The reason it's so versatile is that it's meant to strengthen all the layers of the skin and supporting structures, and to increase its healing capacity. As such, it's also useful for various skin problems that are specific to bodybuilders and other athletes, including problems with acne and stretch marks.

Putting It All Together

This article just touches on some of the important points on what you need to do to get what you want, whether it's just to tone up or to maximize muscle mass, strength, and performance. For more information on all of the above, and for a comprehensive overview of the performance pipeline go to www.MetabolicDiet.com.

For example, the Anabolic Solution series of books are all about manipulating lean body mass and body fat, and improving performance. And it does all of this by affecting metabolic changes and altering the body's anabolic and the catabolic hormones and growth factors.

But the Anabolic Solution is more than just the best natural way to reach your athletic goals. By duplicating much of what athletes get from the use of ergogenic and body composition changing drugs (including anabolic steroids) the Anabolic Solution method and books are a safe, effective, and natural alternative to the use of these drugs.

The "just say no" to drugs mantra adopted by so many in our society is an exercise in futility, especially in the powerlifting, bodybuilding, fitness and sporting world. What we need, instead of all the naysayers, is a viable alternative to drug use. And that's just what we have in my **Anabolic Solution**. Besides that, the Anabolic Solution books explain both the art and science behind the use of the Metabolic Diet and sophisticated nutritional supplements, explaining why and how they work and how they can best be used.

Summary

The bottom line in your ability to get and maintain the body you want, and/or to increase performance requires a coordinated, holistic approach to lifestyle, training and nutrition. Nutritional supplements are an important part of this approach, and a must to maximize gains and performance. This approach affects not only the body, thus resulting in a natural way to maximize body composition and performance, but also the mind, with important positive psychological and emotional stabilizing effects.

As far as my phase shift diets and line of nutritional supplements, they're now being used by some of the best bodybuilders and athletes in the world, with amazing success. At the time of writing, I have several of the top athletes in the world on customized diet and nutritional supplement regimens, including many elite, and several world record holding track and field athletes, several top amateur and professional bodybuilders including some of the Mr. Olympia contestants, and several athletes in other sports including boxing, UFC, cyclists, including one of the top contenders of the Tour de France, and several hundred other elite amateur and professional athletes. They're also being used worldwide, personally and professionally for their athletes and clients, by top coaches, personal trainers, and health professionals, including sports medicine doctors, chiropractors, therapists, and nutritionists.

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Dr. Di Pasquale is an author, a former world champion, a former professor at the University of Toronto, and actively involved in the weight loss, sports and fitness fields for over four decades.

He is presently a licensed physician in Ontario, Canada, and for the last three decades has specialized in Sports Medicine and Nutrition, as well as Bariatric Medicine (treatment of obesity), and ways to maximize body composition and athletic performance.