THE NO-BS GUIDE TO WORKOUT SUPPLEMENTS

Michael Matthews

oculus

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ABOUT THE AUTHOR

Hi,

I'm Mike and I've been training for nearly a decade now.

I believe that every person can achieve the body of his or her dreams, and I work hard to give everyone that chance by providing workable, proven advice grounded in science, not a desire to sell phony magazines, workout products, or supplements.

Through my work, I've helped thousands of people achieve their health and fitness goals, and I share everything I know in my books.

So if you're looking to get in shape and look great, then I think I can help you. I hope you enjoy my books and I'd love to hear from you at my site, www.muscleforlife.com.

Sincerely,

Mike

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WHAT YOU NEED TO KNOW ABOUT THE HEALTH & FITNESS INDUSTRY

I'm going to tell you what that the kings of the multi-billion dollar health and fitness industry don't want you to know: You don't need any of their crap to get into shape and to look better than you ever have before.

- You don't need to starve yourself with super low-calorie diets to lose weight and keep it off. In fact, this is how you ruin your metabolism and ensure that any weight lost will come back with a vengeance.
- You don't need to spend hundreds of dollars per month on worthless supplements or fat loss pills.
- You don't need to constantly change up your exercise routines to "confuse" your muscles. I'm pretty sure that muscles lack cognitive abilities, so this approach is a good way to just confuse you instead.
- You don't need to grind out hours and hours of boring cardio to shed ugly belly fat and love handles and get lean and toned. (How many flabby treadmillers have you come across over the years?)
- You don't need to completely abstain from "cheat" foods while losing weight or maintaining your ideal physique. If you plan cheat meals correctly, you can actually speed your metabolism up and accelerate fat loss.

These are just a small sampling of the harmful fallacies commonly believed by many women, and they will bury you in a rut of frustration that

inevitably leads to you quitting.

That was actually my motivation for writing my books: For many years now, I've had friends, family, acquaintances, and co-workers approach me for fitness advice, and they were almost always convinced of many strange, unworkable ideas about diet and exercise.

By educating them in the same way as I'm about to educate you, I've helped people melt away fat, build lean, attractive muscle, and not only look great, but feel great too. And, while helping friends, friends of friends, and family is fulfilling, I want to be able to help thousands (or tens or even hundreds of thousands!). Thus, my career was born.

Now, where did the many fitness and nutrition myths come from? Well, I don't want to waste your time with the boring history of the world of exercise, supplements, and information resources, but the long story short is simply this:

When people are willing to spend big amounts of money on certain types of products or to solve specific problems, there will never be a scarcity of new, "cutting edge" things for them to empty their wallets on, and there will always be scores of brilliant marketers inventing new schemes to keep people spending.

It's pretty simple, really. All we have to do is look where most people get their training and nutritional advice from. Almost everyone gets it from one or more of these three sources: magazines, personal trainers, or friends. The fact is you'll almost never learn anything useful from any of them.

How can I make such bold claims, you wonder? Because I've seen it all, tried it all, and while I don't know it all, I do know what works and what doesn't.

THE NOT-SO-SECRET AGENDA OF MOST FITNESS MAGAZINES

The primary goal of most fitness magazines is to sell supplements for the companies controlling them, and they work damn well. The magazines push products in various ways. They have pretty advertisements all over the place, they regularly run "advertorials" (advertisements disguised as informative articles), and they balance the lot of sales pitches with some actual articles that provide workout and nutrition advice (which also, in many cases, end with product recommendations of some kind).

So, this is the first blow that magazines deal to you: They give you a lot of "advice" that is geared first and foremost to selling you products, not help-

ing you achieve your goals.

The supplement companies know that if they can just keep getting these magazines into people's hands, they will keep selling products. So, how do they ensure that you will keep buying? By coming up with a constant flow of new advice and ideas, of course.

And this is the second, probably more harmful, blow: They inundate you with all kinds of false ideas about what it takes to get into great shape. If they told the simple truth every month, they would have maybe 20 articles or so that they could re-print over and over. Instead, they get quite creative with all kinds of sophisticated (but useless) workout routines, "tricks," and diets (that include certain supplements to really MAXIMIZE the effectiveness, of course).

The bottom line is that you can't trust these types of magazines. They are all either owned by or financially dependent upon supplement companies, and what I outlined above is the game they play.

MOST PERSONAL TRAINERS ARE JUST A WASTE OF MONEY... END OF STORY

Most personal trainers are a waste of time and money.

Every week I see trainers who either have no clue what they're doing or who just don't care about their clients. These poor people are paying $50 – $75 per hour to do silly, ineffective workout routines that usually consist of the wrong exercises done with bad form (and they make little or no gains).

And, let's not forget that many personal trainers aren't even in good shape themselves, which always confuses me. How can you honestly sell yourself as a fitness expert when you're flabby and out of shape? Who could possibly believe you? Well, for some reason, these types of trainers get business all the time, and their clients almost always stay flabby and out of shape themselves.

To compound the disservice, most trainers don't even bother giving their clients nutritional plans, which *really* ensures lackluster gains. The fact is that 70 – 80% of how you look is a reflection of how you eat. Fat, skinny, toned, whatever—exercise is only 20 – 30% of the equation. Eat wrong, and you will stay fat no matter how much cardio you do; eat wrong, and you will stay skinny and weak no matter how much you struggle with weights. Eat right, however, and you can unlock the maximum potential gains from working out: rapid, long-term fat loss and lean, sexy muscle that will turn heads and get your friends and family talking.

You might be wondering why these trainers know so little as certified professionals. Well, I have several good friends who are trainers, and they've all told me the same thing, which is that passing the certification test does *not* make you an expert—it means that you can memorize some basic information about nutrition and exercise...that's about it.

While some people are happy to pay a trainer just to force themselves to show up every day, trainers are usually in a similar boat as the magazines. They have to constantly justify their existence, and they do it by changing up routines and talking about "sophisticated" workout principles (that they read about in the magazines)...and when it's all said and done, their clients waste thousands of dollars to make little progress.

That being said, there absolutely are great trainers out there who are in awesome shape themselves, who do know how to quickly and effectively get others into shape, and who do really care. If you're one of them and you're reading this book, I applaud you because you're carrying the weight of the entire profession on your shoulders.

THE "SECRET" OF SOME OF THE HOTTEST WOMEN IN THE WORLD

If I say "hottest women in the world," what immediately comes to mind? Chances are you thought of Victoria's Secret models. While it's trendy for celebrities to pretend their bodies come effortlessly, don't fall for it—these girls work hard to achieve their enviable physiques.

But here's something many women don't know: Victoria's Secret models train a lot like guys. What do I mean? Sure, they do cardio, but they rely primarily on weight training to look the way they do—to have toned, sexy arms; thin, defined legs; and a perfectly shaped butt.

Don't believe me?

Miranda Kerr lifts weights four days per week, and relies on exercises like the Barbell Squat, Barbell Lunge, and Barbell Reverse Lunge to lift her butt and tone her legs. Chanel Iman said she has trouble toning her body and relies on "a lot of squats and weight lifting" to keep her body in runway shape. Alessandra Ambrosio squats, lunges, and deadlifts for her famous butt and legs.

I could go on but you get the point.

Now, this might leave you a little confused. "Doesn't weight training lead to bulky, ugly muscles?" you might be wondering. Well, that's one of the Big Lies in the world of women's fitness. Building muscle is the key to

accelerating your metabolism, getting sexy curves, and staying lean. You see, women don't build muscle like guys do. You have approximately one *sixteenth* of the testosterone of the average guy, and testosterone is the primary driving force behind muscle growth.

What this means is that it's basically impossible for you to bulk up in the same way as us guys. Bigger and strong muscles on a girl looks very different than on a guy. The scary women that walk the stages of bodybuilding shows are training harder than you can imagine, and are on more drugs than you can imagine (steroids, among others) to look that way.

For the normal woman, moderate and proper weight training is actually the key to getting thin, lean, toned, and strong.

THE BOTTOM LINE

I don't know about you, but I don't exercise to have fun or hang out with friends—I exercise to look and feel better, and I want to get the most from my efforts. If I can get better results by working out half as long as the other person, that's what I want to do. If my options are to shed ten pounds of fat in a month by doing the same "boring" routine every week or to squeak out two pounds of fat loss by doing the latest dynamic inertia muscle confusion routine, I'll choose the former. So, give this book a read, and if you like what I have to say, check out my other books and I think you'll be amazed at how simple getting into incredible shape really is.

HOW TO EAT RIGHT WITHOUT OBSESSING OVER EVERY CALORIE

I have good news.

You can look and feel great without breaking out a calculator every time you eat.

Getting proper nutrition is a precise science, but it doesn't have to be agonizing. In fact, I recommend a more laid-back approach. If you make planning or tracking meals too complicated, you'll have trouble sticking with it.

That being said, in order to lose fat, you must keep your body burning more energy than you're feeding it, and the energy potential of food is measured in calories. Eat too many calories—give your body more potential energy than it needs—and it has no incentive to burn fat.

In order to gain muscle, your body needs a surplus of energy to repair and rebuild itself (along with plenty of protein). Thus, you need to eat slightly more than your body burns to get bigger.

In this chapter I'm going to share some simple rules that you can follow to eat right. Just by following these rules, you'll find that you can lose or gain weight when you want to and that you'll feel healthy and vital.

1. MAKE SURE YOU EAT ENOUGH

A calorie is a measurement of the potential energy found in food, and your body burns quite a bit of energy every day. Everything from the beating of your heart to the digestion of your food requires energy, and your body has to get it from the food you eat.

Thus, it's important that you feed your body enough, and that's especially true when you work out. If you underfeed your body, don't be surprised if you don't have the energy to train hard or if you feel generally exhausted.

If you exercise at least three times per week, use the following formula to ensure you're feeding your body enough to repair itself.

- Eat 1 gram of protein per pound of body weight per day.
- Eat 1.5 grams of carbs per pound of body weight per day.
- Eat 1 gram of healthy fats per 4 pounds of body weight per day.

That's where you start. For a 130 lb woman, it would look like this:

- 130 grams of protein per day
- 195 grams of carbs per day
- 32 grams of fat per day

That's about 1,600 calories per day, which should work for making slow, steady muscle and strength gains without any fat added along the way (which really should be the goal of "maintenance"—not staying the exact same).

If your priority is to gain muscle, then you need to add about 500 calories per day to your "maintenance" diet. The easiest way to do this is to bump up your carbs by about 50 grams per day, and your fats by about 30 grams per day.

If you're trying to lose fat, then you need to subtract about 500 calories per day from your maintenance diet. To do this, drop your carbs by about 90 grams per day, your protein by about 10 grams per day.

It's also important that you consume high-quality calories. Junk food calories, such as white bread, pastas, chips, juice, and soda, will make you look and feel like crap, while good calories, such as fruits, vegetables, whole grains, and lean proteins, will keep you in tip-top shape.

2. EAT ENOUGH PROTEIN

If you work out, you need more protein than someone who doesn't work out. Why? Because exercise causes muscle damage.

With every rep you perform, you're causing "micro-tears" in your muscle fibers, and your body needs protein to fully repair this damage. The body doesn't just repair them to their previous state, however; it builds them bigger and stronger so it can better handle the stress of exercise.

So, in order to get the most out of your workouts, you need to eat enough protein. And that doesn't mean just eating a lot after working out. It means eating enough every day, which will require you to eat some with every meal you have (and as a general rule, eating .75-1 gram of protein per pound of body weight is a good target if you exercise regularly).

By doing this, you can ensure your body has the amino acids it needs to build muscle and repair tissue. If you fail to feed your body enough protein, it will fall behind in the muscle breakdown and repair cycle, and you can actually get smaller and weaker despite exercise.

There are two main sources of protein out there: whole food protein and supplement protein.

Whole food protein is, as you guessed, protein that comes from natural food sources, such as beef, chicken, fish, etc. The best forms of whole food protein are chicken, turkey, lean red meat, fish, eggs, and milk.

If you're vegetarian, your best options are eggs, low-fat cottage cheese (Organic Valley is my favorite brand), low-fat European style (Greek) yogurt (0% Fage is my favorite), tempeh, tofu, quinoa, almonds, rice, and beans.

While we're on the subject of vegetarianism, some people claim that you must carefully combine your proteins if you're vegetarian or vegan to ensure your body is getting "complete" proteins (all of the amino acids needed to build tissue). This theory and the faulty research it was based on was thoroughly debunked as a myth by the American Dietetic Association, yet it still hangs around. While it's true that some sources of vegetable protein are lower in certain amino acids than other forms of protein, there is no scientific evidence to prove that they lack them altogether.

Protein supplements are powdered or liquid foods that contain protein from various sources, such as whey (a liquid remaining after milk has been curdled and strained in the process of making cheese), egg, and soy—the three most common sources of supplement protein. There are also great plant-based supplements out there that are a blend of high-quality protein sources such as quinoa, brown rice, peas, hemp, and fruit.

You don't NEED protein supplements to eat well, but it can be impractical for some to try to get all protein from whole foods considering the fact that you will be eating protein 4 – 6 times per day.

Now, there are a few things you should know about eating protein. First is the subject of how much protein you can absorb in one sitting. Studies relating to this are very contradictory and disputed, mainly because it's

a complex subject. Your genetics, metabolism, digestive tract health, lifestyle, and amount of lean mass are all important factors. But in the spirit of keeping things simple, here's what we know: you can eat and properly use a lot of protein in each meal. How much, exactly? Well, your body should have no trouble absorbing upwards of 100 grams in one sitting.

That said, there aren't any benefits of eating this way (I find gorging quite uncomfortable, actually), but it's good to know in case you miss a meal and need to make it up by loading protein into a later meal.

Another thing to know about protein is that different proteins digest at different speeds, and some are better utilized by the body than others. Beef protein, for example, is digested quickly, and 70 – 80% of what's eaten is utilized by the body (the exact number varies based on what study you read, but they all fall between 70 – 80%). Whey protein is also digested quickly and its "net protein utilization" (NPU) is in the low 90% range. Egg protein digests much slower than whey and beef, and its NPU also falls in the same range.

NPU and digestion speeds are important to know because you want to rely on high-NPU proteins to meet your daily protein requirement, and you want a quick-digesting protein for your post-workout meal, and a slow-digesting protein for your final meal before you go to bed (to help you get through the fasting that occurs during sleep).

I could give you charts and tables of the NPU rates of various proteins, but I'm going to just keep it simple. In order to meet your daily protein requirements, here are your choices:

Whole Food Proteins

Lean meats (beef, pork, chicken, and turkey)

Fish

Eggs

Vegetarian sources noted above

Protein Supplements

Egg

Whey

Casein

High-quality plant-based protein supplements

In case you're wondering why I left soy protein off the list of recommended supplements, it's because it's just a bad protein source. To start, most soy protein supplements use genetically modified soybeans (which is a very dangerous trend encroaching further and further into the world of agriculture), and studies have shown that too much of it can increase estrogen levels and inhibit your body's testosterone production (due to a plant estrogen found in soybeans). Just stay away from it.

3. EAT HEALTHY FATS

Fats are the densest energy source available to your body. Each gram of fat contains over twice the calories of a gram of carbohydrate or protein. Healthy fats, such as those found in olive oil, avocados, flax seed oil, many nuts, and other foods, are actually an important component for overall good health. Fats help your body absorb the other nutrients that you give it; they nourish the nervous system, help maintain cell structures, regulate hormone levels, and more.

Saturated fats are a form of fat found mainly in animal products such as meat, dairy products, and egg yolks. Some plant foods, such as coconut oil, palm oil, and palm kernel oil, are also high in saturated fats. While it's commonly believed that eating saturated fat harms your health, the opposite is actually true. Recent studies have shown that including saturated fats in your diet can reduce your risk of heart disease.

Trans fats are scientifically modified saturated fats that have been engineered to give foods longer shelf lives. Many cheap, packaged foods are full of trans fats (such as run-of-the-mill popcorn, yogurt, and peanut butter) as are many frozen foods (such as frozen pizza, packaged pastries, cakes, etc.). And fried foods are often fried in trans fats. These fats are bad news, and eating too much of them can lead to all kinds of diseases and complications. They have no nutritional value for the body and thus should be avoided altogether.

Most people eat more fat than is necessary, thus adding lots of unnecessary calories to their daily intake. Getting enough healthy fats every day is pretty simple. Here's how it works:

- Keep your intake of saturated fats relatively low (below 10% of your total calories). Saturated fat is found in foods like meat, dairy products, eggs, coconut oil, bacon fat, and lard. If a fat is solid at room temperature, it's a saturated fat.

- Completely avoid trans fats. Trans fats are found in processed foods such as cookies, cakes, fries, and doughnuts. Any food that

contains "hydrogenated oil" or "partially hydrogenated oil" likely contains trans fats, so just don't eat it. (Sure, having a cheat here and there that contains trans fats won't harm anything, but you definitely don't want to eat them regularly.)

- Get at least half of your daily fat from unsaturated fats such as olive oil, nuts, peanut oil, avocados, flax seed oil, safflower oil, or sesame oil. If a fat is liquid at room temperature, it's an unsaturated fat.

By simply sticking to the recipes in this book, you'll avoid unhealthy fats and include healthy fats without even trying.

4. EAT GOOD CARBS

The carbohydrate is probably the most misunderstood, maligned, and feared macro-nutrient. Thanks to the scores of bogus diet plans and suggestions out there, many people equate eating carbs with getting fat. While eating TOO MANY carbs can make you fat (just as eating too much protein or fat can), carbs are hardly your enemy. They play an essential role in not only muscle growth but in overall body function.

Regardless of what type of carbohydrate you eat—broccoli or apple pie—the body breaks it down into two substances: *glucose* and *glycogen*. Glucose is commonly referred to as "blood sugar," and it's an energy source used by your cells to do the many things they do. Glycogen is a substance stored in the liver and muscles that can be easily converted to glucose for immediate energy. When you lift weights intensely, your muscles burn up their glycogen stores to cope with the overload.

Now, why is broccoli good for you but apple pie isn't? Because your body reacts very differently to broccoli than to apple pie. You've probably heard the terms "simple" and "complex" carbs before and wondered what they meant. You might have also heard of the *glycemic index* and wondered what it was all about.

These things are actually pretty simple. The glycemic index is a numeric system of ranking how quickly carbohydrates are converted into glucose in the body. Carbs are ranked on a scale of 0 to 100 depending how they affect blood sugar levels once eaten. A GI rating of 55 and under is considered "low GI," 56 to 69 is medium, and 70 and above is high on the index. A "simple" carb is one that converts very quickly (is high on the glycemic index), such as table sugar, honey, and watermelon, while a "complex" carb is one that converts slowly (is low on the glycemic index), such as broccoli, apple, and whole-grain bread.

It's very important to know where the carbs you eat fall on the index, because studies have linked regular consumption of high-GI carbs to increased risk for heart disease, diabetes, and obesity.

The amount of carbohydrates that you should eat every day depends on what you're trying to accomplish. Building muscle requires that you eat a substantial amount of carbs, while dieting to lose weight requires that you reduce carbs.

Regardless of how many carbs you need to eat per day, there's a simple rule to follow regarding high-, medium- and low-glycemic carbs.

Eat carbs in the medium–high range of the glycemic index (60 – 90 is a good rule of thumb) about 30 minutes before you exercise, and again within 30 minutes of finishing your workout.

The reason you want some carbs before training is that you need the energy for your training. The reason you want them after is that your muscles' glycogen stores are heavily depleted, and by replacing it quickly, you actually help your body maintain an anabolic state and not lose muscle tissue.

My favorite pre- and post-workout carbs are bananas and rice milk, but other good choices are baked potato, instant oatmeal, and fruits that are above 60 on the glycemic index, such as cantaloupe, pineapple, watermelon, dates, apricots, and figs. Some people recommend eating foods high in table sugar (sucrose) after working out because it's high on the GI, but I stay away from processed sugar as much as possible.

All other carbs you eat should be in the middle or at the low end of the glycemic index (60 and below is a good rule of thumb). It really is that simple. If you follow this rule, you'll avoid so many problems that others suffer from due to the energy highs and lows that come with eating high-GI carbs that burn the body out.

Below is a list of common snack foods with corresponding average GI scores. The GI scores vary a bit from brand to brand, but not by much. Generally speaking, it's best to stay away from these types of carbs.

(The following information is sourced from the University of Sydney, the University of Harvard, and Livestrong.com.)

FOOD	**GI**
White bread bagel	72
Corn chips	63

Pretzels	83
Candy bar	62 – 78
Wheat or corn cracker	67 – 87
Rye cracker	64
Rice cake	78
Popcorn	72
White rice	64
Pizza	80
Raisins	64
Whole wheat bread	71
White bread	70
Baguette	95
English muffin (white bread)	77
Baked potato	85
Muesli	66

So, forget stuff like sugar, white bread, processed, low-quality whole wheat bread, bagels, junk cereals, muffins, white pasta, crackers, waffles, rice cakes, corn flakes, and white rice. I wouldn't even recommend eating these things often as pre- or post-workout carbs because they're just not good for your body.

Even certain fruits, such as watermelon and dates, are bad snack foods because of where they fall on the glycemic index. If you're unsure about a carb you like, look it up to see where it falls on the glycemic index. If it's above 60, just leave it out of your meals that aren't immediately before or after working out.

5. EAT YOUR FRUITS AND VEGGIES

Your body requires many different things to function optimally. It can't look and feel great on protein and carbs alone. You need calcium to ensure your muscles can contract and relax properly. You need fiber to help move food through the digestive tract. You need iron to carry oxygen to your cells and create energy.

There are many other "little helpers" that your body needs to perform its many physiological processes, and fruits and vegetables contain many

vital nutrients that you can't get from vitamin supplements. By eating 3 – 5 servings of both fruits and vegetables per day, you enjoy the many benefits that these nutrients give to your body, such as lowering your risk of cancer, heart disease, diabetes, and many other diseases.

This isn't hard to do, either. A medium-sized piece of fruit is one serving, as is half a cup of berries. A cup of greens is a serving of vegetables, as is half a cup of other vegetables.

Fruit *juices*, however, are another story. While they may seem like an easy way to get in your daily fruits, they are actually not much more than tasty sugar water. Not only do most fruit juices have sugar added, but the juice has also been separated from the fruit's fibrous pulp, which slows down the metabolism of the sugars. Without that, the juice becomes a very high-glycemic drink. You're better off drinking water and eating whole fruit.

The exception to this is creating juice using a juicer or blender to grind up the entire piece of fruit, removing nothing. This, of course, is no different than chewing up the fruit in your mouth.

Fruits widely recognized as the healthiest are apples, bananas, blueberries, oranges, grapefruit, strawberries, and pineapples.

Vegetables often recommended as the healthiest are asparagus, broccoli, spinach, sweet potatoes, tomatoes, carrots, onions, and eggplant.

6. PLAN AND PROPORTION YOUR MEALS PROPERLY

Many people's meal plans are engineered for getting fat. They skip breakfast, eat a junk food lunch, come home famished, have a big dinner with some dessert, and then have a snack like chips or popcorn while watching TV at night.

A much better strategy is to eat smaller meals every 3-4 hours, and include protein with each (as this fills you up and makes you feel satisfied).

Much of your daily carbohydrates should come before and after training, when your body needs them most. I eat about 10 – 15% of my daily carbs before training, and about 30 – 40% after, in my post-workout meal.

It's also important when dieting to lose weight to not eat carbs within several hours of going to bed. This advice has been kicking around the health and fitness world for quite some time, but usually with the wrong explanation.

There's no scientific evidence that eating carbs at night or before bed will lead to gaining fat, but it can *hinder* fat loss. How?

The insulin created by the body to process and absorb carbs eaten stops the use of fat as an energy source. Your body naturally burns the most fat while sleeping, and so going to sleep with elevated insulin levels interferes with fat loss.

Related to this is the fact that studies have indicated that the production and processing of insulin interferes with the production and processing of growth hormone, which has powerful fat-burning properties. Your body naturally produces much of its growth hormone while sleeping, so again, if your body is flushed with insulin when you go to sleep, your growth hormone production may suffer, which in turn may rob you of its fat-burning and muscle-building benefits.

So, as a general rule, when you're dieting to lose weight, don't eat any carbs within 4 – 5 hours of bedtime. You should only consume lean proteins after dinner. I follow this rule when bulking too, not because I'm worried about fat burning (you don't burn fat when bulking), but because I don't want to stunt my growth hormone production.

You can spread your fats throughout the day. I like to start my day with 1 – 2 tablespoons of a 3-6-9 blend (a combination of essential fatty acids, which are fats vital for the proper function of every cell, tissue, gland, and organ in your body), but you don't have to get one if you don't want to. You can simply stick to the sources of healthy fat given earlier.

7. DRINK A LOT OF WATER

The human body is about 60% water in adult males and about 70% in adult females. Muscles are about 70% water. That alone tells you how important staying hydrated is to maintaining good health and proper body function. Your body's ability to digest, transport, and absorb nutrients from food is dependent upon proper fluid intake. Water helps prevent injuries in the gym by cushioning joints and other soft-tissue areas. When your body is dehydrated, literally every physiological process is negatively affected.

I really can't stress enough the importance of drinking clean, pure water. It has zero calories, so it will never cause you to gain weight regardless of how much you drink. (You can actually harm your body by drinking too much water, but this would require that you drink several gallons per day.)

The Institute of Medicine reported in 2004 that women should consume about 91 ounces of water—or three-quarters of a gallon—per day, and men should consume about 125 ounces per day (a gallon is 128 ounces).

Now, keep in mind that those numbers include the water found in food. The average person gets about 80% of their water from drinking it and other beverages, and about 20% from the food they eat.

I've been drinking 1 – 2 gallons of water per day for years now, which is more than the IOM baseline recommendation, but I sweat a fair amount due to exercise and I live in Florida, which surely makes my needs higher. I fill a one-gallon jug at the start of my day and simply make sure that I finish it by dinner time. By the time I go to bed, I'll have drank a few more glasses.

Make sure the water you drink is filtered, purified water and not tap water. There's a big difference between drinking clean, alkaline water that your body can fully utilize and drinking polluted, acidic junk from the tap or bottle (which is the case with certain brands such as Dasani and Aquafina).

8. CUT BACK ON THE SODIUM

The average American's diet is so over-saturated with sodium it makes my head spin.

The Institute of Medicine recommends 1,500 milligrams of sodium per day as the adequate intake level for most adults. According to the CDC, the average American aged 2 and up eats 3,436 milligrams of sodium per day.

Too much sodium in the body causes water retention (which gives you that puffy, soft look) and it can lead to high blood pressure and heart disease.

Frozen and canned foods are full of sodium, as are cured meats like bacon and sausage (one slice of bacon contains *1,000 milligrams* of sodium!).

Whenever possible, I chose low- or no-sodium ingredients for the recipes in this book. When you need to add salt, I recommend sea salt or Himalayan rock salt (sounds like fancy BS, but it's actually great stuff) because it has many naturally occurring minerals, whereas run-of-the-mill table salt has been "chemically cleaned" to remove "impurities," which includes these vital elements.

9. CHEAT CORRECTLY

Many people struggling with diets talk about "cheat days." The idea is that if you're good during the week, you can go buck wild on the weekends and somehow not gain fat. Well, unless you have a very fast metabolism, that's not how it works. If you follow a strict diet and exercise, you can expect to lose 1-2 pounds per week. If you get too crazy, you can gain it right back over a weekend.

So don't think cheat DAYS, think cheat MEALS—meals where you eat more or less anything you want (and all other meals of the week follow your meal plan). When done once or twice per week, a cheat meal is not only satisfying, but it can actually help you lose fat.

How?

Well, first there's the psychological boost, which keeps you happy and motivated, which ultimately makes sticking to your diet easier.

But there's also a physiological boost.

Studies on overfeeding (the scientific term for binging on food) show that doing so can boost your metabolic rate by anywhere from 3-10%. While this sounds good, it actually doesn't mean much when you consider that you would need to eat a anywhere from a few hundred to a few thousand extra calories in a day to achieve this effect.

More important are the effects cheating has on a hormone called leptin, which regulates hunger, your metabolic rate, appetite, motivation, and libido, as well as serving other functions in your body.

When you're in a caloric deficit and lose body fat, your leptin levels drop. This, in turn, causes your metabolism to slow down, your appetite to increase, your motivation to wane, and your mood to sour.

On the other hand, when you give your body more energy (calories) than it needs, leptin levels are boosted, which can then have positive effects on fat oxidation, thyroid activity, mood, and even testosterone levels.

So if it's a leptin boost that you really want, how do you best achieve it?

Eating carbohydrates is the most effective way. Second to that is eating protein (high-protein meals also raise your metabolic rate). Dietary fats aren't very effective at increasing leptin levels, and alcohol actually inhibits it.

So, if your weight is stuck and you're irritable and demotivated, a nice kick of leptin might be all you need to get the scales moving again.

Have a nice cheat meal full of protein and carbs, and feel good about it.

(I would recommend, however, that you don't go too overboard with your cheat meals—don't eat 2,000 calories of junk food and desserts and think it won't do anything.)

SUMMARY

You may find this chapter a bit hard to swallow (no pun intended). Some people have a really hard time giving up their unhealthy eating habits

(sugar and junk food can be pretty addictive). That being said, consider the following benefits of following the advice in this chapter:

1. If this is a completely new way of eating for you, I *guarantee* you'll feel better than you have in a long time. You won't have energy highs and lows. You won't feel lethargic. You won't have that mental fogginess that comes with being stuffed full of unhealthy food every day.

2. You will appreciate "bad" food so much more when you only have it once or twice per week. You'd be surprised how much better a dessert tastes when you haven't had one in a week. (You may also be surprised that junk food that you loved in the past no longer tastes good.)

3. You will actually come to enjoy healthy foods. I promise. Even if they don't taste good to you at first, just groove in the routine, and soon you'll crave brown rice and fruit instead of doughnuts and bread. Your body will adapt.

This chapter teaches you all there really is to eating properly so you can build muscle or lose weight on demand, all while staying healthy.

THE NO–BS GUIDE TO WORKOUT SUPPLEMENTS

Advanced time release formula guaranteed to feed your lean mass for up to 8 hours!

Kick your testosterone production into overdrive and maximize your gains!

Assault estrogen receptors in your body and completely block muscle–killing hormones!

The shelves of your local GNC are packed with all kinds of bogus junk claiming to deliver results that only steroids can achieve.

This includes pre–workout supplements, intra–workout supplements, post–workout supplements, test boosters, HGH boosters, nitric oxide supplements, anti–estrogens, aromatase inhibitors, and the list goes on and on.

If you believe half of the hype you read in supplement advertisements or on their labels, well, it would probably take a while before you realize the simple truth of the matter, which is…

Most everything you see in the world of workout supplements is utterly worthless.

Yup…a complete waste of money. Not all. But most.

How can I say that so confidently? I've not only tried every type of supplement you can imagine, but I've studied the science and only follow what has been objectively proven—not subjective testimony and fancy marketing pitches.

You see, the supplement companies are cashing in BIG on a little trick that your mind can play on you known as the *placebo effect*. This is the scientifically proven fact that your simple belief in the effectiveness of a medicine or supplement can make it work. People have overcome every form of illness you can imagine, mental and physical, by taking substances which they believed to have therapeutic value, but which actually didn't. I'm talking about things like curing cancer and diabetes, eliminating depression and anxiety, and lowering blood pressure and cholesterol levels by taking medically worthless substances that the people believed were treatments for their problems.

Many guys believe that the shiny new bottle of "muscle–maximizing" pills will work, and then they sometimes actually do "feel them working" even though, it comes out later, the ingredients have never been scientifically proven to do anything the company claims. Or, it's revealed that the scientific trials they tout in their ads were biased and invalid.

That said, there are a handful of supplements that actually are worth buying and using. Mostaren't the sexy muscle–building crap pushed by 'roid monsters in the magazines, but they are scientifically proven to help you in your journey to build muscle, get lean, and stay healthy.

So, let's go through the common types of supplements out there and look at what you should and shouldn't spend your hard–earned cash on. And in the bonus report offered at the end of this book, and on my website (www.muscleforlife.com), you'll find my exact product recommendations (brands and products themselves).

PROTEIN SUPPLEMENTS

Protein is the nutrient most responsible for muscle growth and repair. Using protein supplements such as whey, egg, and casein powders (your three best options) isn't necessary, but it is convenient.

Unless you are in the lucky position of being able to have whole food meals ready 4–6 times per day, you're going to need to use protein supplements.

Whey protein is a staple in most athletes' diets for a good reason: it's digested quickly, absorbed efficiently, and easy on the taste buds.

Prices are all over the place, however, ranging from less than $10 per pound, to over $20 per pound, and marketing claims used to justify various price points range from sensible to ludicrous.

So what gives? Let's lift the veil of mystery on whey so you can make an

informed choice, and get the right product for the right price.

Whey is a byproduct of cheese production. It's a relatively clear liquid left over after milk has been curdled and strained, and it used to be disposed of as waste. It was later discovered that it contains an impressive array of complete proteins necessary for protein synthesis and hypertrophy, and thus, the whey protein supplement was born.

But why is whey so big in the health and fitness world? Does it warrant all the attention?

Well, whey is especially popular with athletes and bodybuilders because of its amino profile, which is high in leucine[1], an essential amino acid that plays a key role in initiating protein synthesis[2].

Whey is particularly effective when eaten after training, due to its rapid digestion and abundance of leucine. Simply put, the faster the protein is digested the more leucine it has, the more muscle growth it stimulates[3], and research has proven that whey is a highly effective form of post–workout protein[4].

So yes, there's a good reason why most protein supplements sold are whey. But not all whey products are equal.

The three forms of whey protein sold are whey concentrate, isolate, and hydrolysate.

Whey concentrate is the least processed form and cheapest to manufacture, and it contains some fat and lactose. Whey concentrates range from 35–80% protein by weight[5], depending on quality.

Whey isolate is a form of whey protein processed to remove the fat and lactose. Isolates are 90%+ protein by weight[6], and as they're more expensive to manufacture than whey concentrate, they're more expensive for consumers too.

Whey hydrolysate is a predigested form of whey protein that's very easily absorbed by the body and free of allergenic substances found in milk products[7]. Research also indicates that the hydrolysis process improves solubility and digestibility[8]. Whey hydrolysate is the most expensive of the three options.

So which should you buy? Well, when choosing a whey, you have a few things to consider.

While isolates and hydrolysates are pushed as superior to concentrates due to purity and higher protein concentrations per scoop, there's insufficient evidence to support claims that they are superior to concentrates

when used as a part of a mixed diet.

That said, choosing the cheapest whey you can find, which will always be a concentrate, isn't a good idea, either. A quality whey concentrate is somewhere around 80% protein by weight, but inferior concentrates can have as little as 30% protein by weight.

What else is in there, then?

Unfortunately we can only wonder, as adulteration (the addition of fillers like maltodextrin and flour) is startlingly rampant in this industry[9].

In many cases, you'll get what you pay for--if the product costs a lot less than the going rate for whey, it's probably because it's made with inferior ingredients.

High prices aren't always indicative of high–quality, though. Disreputable supplement companies also pull other tricks, such as starting with a low–quality concentrate, adding small amounts of isolate and hydrolysate to create a "blend," and then calling attention to the isolate and hydrolysate in their marketing and packaging.

To protect yourself as a consumer, always check ingredient lists and serving sizes and amounts of protein per serving before buying protein powder.

Specifically, you're going to want to look at the order in which the ingredients are listed (ingredients are listed in descending order according to predominance by weight), and the amount of protein per scoop relative to the scoop size.

For instance...

- If a product has maltodextrin (a filler), or any other ingredient, listed before the protein powder, don't buy it (that means there's more maltodextrin, creatine or other fillers in it than protein powder).

- If a scoop is 40 grams but there is only 22 grams of protein per serving, don't buy it unless you know that the other 18 grams are made up of stuff you want (weight gainers have quite a few carbs per scoop, for instance).

A high–quality whey protein is easy to spot: whey concentrate, isolate, or hydrolysate listed as the first ingredients, and a scoop size relatively close to the amount of actually protein per scoop (it'll never match because there is at least sweetener and flavoring along with the protein powder in every serving).

Fortunately, there isn't as much to worry about with casein and egg supplements. Stick with a casein that uses micellar casein (the highest quality available), and most egg products are comparable, but I prefer one company specifically, which you'll find in the bonus report.

WEIGHT GAINERS

Weight gainers used to be popular as a "solution" for "hardgainers." I don't like them because most are way too high in sugar and other junk carbs. I recommend getting your calories from whole foods and traditional protein supplements instead.

BCAAS

Branched Chain Amino Acids (BCAAs) are the three "building blocks" of your body: leucine, isoleucine, and valine. They make up about 35% of your muscle mass and must be present in the body for muscle growth and repair to occur.

While that description might lead you to assume that yes, you absolutely should be buying BCAA supplements…not so fast. Most whole food proteins are made up of about 15% BCAAs, and most protein supplements have BCAAs added, so when you're eating enough protein, especially if you're using protein supplements with BCAAs added, you're getting enough BCAAs to meet your body's demands[10].

I only recommend buying BCAAs under two circumstances:

1. When you're doing an abnormally high amount of muscularly strenuous activity each week, which puts incredibly high amino acid demands on the body (e.g., lifting weights 5 times per week and playing football three days per week for a couple hours each day).

2. When you're training in a fasted state, which is a state wherein you haven't eaten in 3+ hours and your insulin levels are low. Fasted training is useful for accelerating fat loss and for targeting stubborn fat in particular, but is also kind of an "advanced" topic. If you want to learn more about it, head over to my website (www.muscleforlife.com) and search for "stubborn fat".

PRE–WORKOUT DRINK

Advertisements for popular pre–workout products are some of the most exaggerated in the industry. Take 20 grams of powder and you'll experience "highly explosive energy," "maximum anabolic activation," and

"extreme training endurance," they say. And they have pictures of monstrous bodybuilders that look like they're about to die of a heart attack to back it up.

What gives, though? Are these products actually worth it, or are you better off popping a couple caffeine pills or drinking an espresso instead?

Pre–workout products are notorious for a few deceitful practices:

- Including ineffective ingredients to make long, impressive nutrition labels, and using (and often mis–interpreting) cherry–picked, flawed, or biased studies to justify their use.
- Under–dosing key ingredients and hiding it behind the "proprietary blend" labeling loophole that allows companies to not disclose the actual composition of each part of the blend[11].
- Using chemical names of everyday compounds to mislead you into thinking the products have special ingredients. For instance, epigallo–3–catechin–3–O–b–gallate is just green tea extract, and 1,3,7–trimethylxanthine is just caffeine.

Why do these things?

Because it's *extremely profitable*.

You see, here's the game: When Shady Supplements, Inc. is looking to create a pre–workout product, they believe two things are key for sales: 1) being able to list ingredients on the label that have been clinically proven as safe and effective, so marketing claims can be defended, and 2) being able to list a bunch of other junk that sounds impressive, but which has no science to back it up, intended to give you the impression that you're getting a lot for your money.

The problem? Cost.

Using clinical dosages of effective ingredients gets really expensive, really fast. Instead of shaving their formulation down to a handful of properly dosed, effective ingredients, Shady Supplements goes in the opposite direction.

They decide to include miniscule amounts of substances proven to be effective in much larger dosages, and then throw in tiny amounts of a bunch of junk for good measure. Just like that, a new proprietary blend is born, and all they have to tell you is the total weight of everything in the blend, not of the individual ingredients themselves.

Another little trick of the proprietary blend is the fact that ingredients are listed in descending order according to predominance by weight, so

when the first ingredient in a blend is something cheap, let's say maltodextrin (a sweet, or sometimes tasteless, filler) or creatine monohydrate, it could (and often is) 90%+ of the actual product.

No matter how many other ingredients are listed after the first, they could altogether only constitute a very small percentage of the actual blend.

Then Shady Supplement's marketing department gets ahold of the product and links it to all the benefits they can find, and often invent and embellished too, based on the ingredients that would be effective if the dosages weren't a mere fraction of the clinical dosages.

In the end, this means you pay $30–50 for something that cost Shady Supplements $5 to manufacture, and that would've cost $30 to create if the junk were dropped and clinical dosages were used for the worthwhile ingredients.

So the first thing you should demand as a consumer is no proprietary blends. There's absolutely no reason to use them for anything other than deception and fraud. All the science behind effective ingredients is publicly available. Everyone knows what works and doesn't, and in what dosages. Claims of "trade secrets" are bogus.

The second thing to know is that more ingredients doesn't mean a better product. In fact, you won't find a legitimate pre–workout with 30 ingredients because it's not financially feasible to include so many ingredients at clinically effective dosages (and you would be hard pressed to even find 30 ingredients worth using, period).

By choosing wisely, you can force the changes that need to happen: the death of the proprietary blend, the use of clinical dosages for effective ingredients, and the elimination of ineffective "label filler" ingredients.

So, this brings us back to the original question: pre–workout or caffeine pills?

Well, caffeine is a useful pre–workout stimulant that can increase muscle endurance and strength, but the fact is there are plenty of other safe, natural substances that can further improve your performance...if they're dosed properly.

So, all things considered, a good pre–workout supplement is worth the investment, in my opinion. It will give you a kick of energy, a good pump, and increased muscle endurance.

One thing you should know about pre–workout drinks, however, is that most contain quite a bit of caffeine per serving (anywhere from 100–300 mg). If your body is sensitive to caffeine, you might want to try one

with little or no caffeine.

CREATINE

Creatine is a substance found naturally in the body and in foods like red meat. It is perhaps the most researched dietary supplement in the world of sports nutrition--the subject of over 200 studies.

Research has shown that supplementation with creatine can...

- Help build muscle and improve strength[12–14]
- Improve anaerobic endurance[15,16]
- Reduce muscle damage and soreness from exercise[17,18]

And in case you're worried that creatine is bad for your kidneys, these claims have been categorically and repeatedly disproven[19,20].

In healthy subjects, creatine has been shown to have no harmful side effects, in both short– or long–term usage[21–22]. People with kidney disease are not advised to supplement with creatine, however[23].

What type of creatine should you take, though?

Creatine monohydrate has been the subject of the vast majority of studies done on the creatine molecule and is a proven winner, but the marketing machines of supplement companies are constantly pumping up fancy–sounding stuff like creatine citrate, creatine ethyl ester, liquid creatine, creatine nitrate, buffered creatine, creatine hydrochloride, and others.

These variations are certainly more expensive than creatine monohydrate, but are they any more effective? The short answer is NO, they're not.

Certain forms of creatine are more water soluble, such as creatine citrate[24], nitrate[25], and hydrochloride (the research backing this claim has disappeared, so I can't cite it), but this doesn't make them more effective in your body.

Don't overpay for over–hyped forms of creatine pushed by million dollar ad campaigns and sold in fancy bottles. Creatine monohydrate is the best bang for your buck, and is the standard by which all other forms of creatine are still judged.

If creatine monohydrate bothers your stomach, try a more water soluble form of creatine such as micronized creatine, or creatine citrate, nitrate, or hydrocholoride.

TEST BOOSTERS

While studies have shown that you can increase testosterone levels by handling deficiencies in certain vitamins such as D[26] and C[27], and minerals such as zinc[28], calcium[29], and magnesium[30], the flashy "test boosters" sold in your local GNC are misleading at best, and generally just a waste of money.

They usually have outrageous marketing claims that only steroids could hope to deliver on, and will even cite "scientific" studies that "prove" their effectiveness. This is always BS.

Some test boosters really go to town with their ingredients, but most rely on one or more of the following: Tribulus terrestris, ZMA, or D–aspartic acid.

Multiple studies have proven that supplementation with Tribulus terrestris no effect on testosterone levels, body composition, or exercise performance[31–35].

Research has shown that supplementation with ZMA does not affect testosterone levels if you're not zinc deficient[36,37].

And while research has shown that supplementation with D–aspartic acid can increase testosterone levels in both humans and rats[38], the effective dosage in humans was just over 3 grams of D–AA per day. Most test boosters that include D–AA use half that dosage or less, which is sure to reduce its effectiveness.

The bottom line is most test boosters on the market won't do anything for you. If you want to try D–aspartic acid, save money and just buy the amino itself, and take 3 grams per day.

Supplements that aim to handle vitamin and mineral deficiencies that lower testosterone levels can be worthwhile, but these are rarely marketed as "test boosters," and fall under the less sexy category of "male health" instead.

HGH BOOSTERS

Like test boosters, most HGH (human growth hormone) boosters are a waste of money. They're usually full of amino acids that do provide various benefits when dosed properly, but which have never been proven to increase GH levels.

Another common ingredient is gamma aminobutyric acid, or GABA. Research has shown that supplementation with GABA elevates resting and postexercise growth hormone levels[39,40], but the forms of GH increased

have not been proven to contribute to muscle growth (there are over 100 forms of GH in your body, and all perform different functions).

Save your money and skip the HGH boosters.

GLUTAMINE

Glutamine is the most abundant amino acid in the body, and is heavily depleted by intense, prolonged exercise[41,42].

Research has shown that supplementation with glutamine can...

Reduce the negative effects of prolonged exercise on the immune system[43] (research has shown that exercise depletes glutamine levels in the body, which in turn can impair immune function[44,45]).

Improve your endurance and reduce fatigue in prolonged exercise[46,47].

Help your body better deal with the systemic stress of prolonged exercise[48–50].

While glutamine is a worthwhile supplement backed by good science, it's not without hype. And the claims usually revolve around building and preserving muscle. Can supplementation with glutamine do this?

Not quite.

Research has shown that intramuscular glutamine levels play an important role in protein synthesis[51] and the prevention of muscle breakdown[52], and glutamine does improve the body's ability to use leucine[53](an essential amino acid that plays a vital role in protein synthesis).

That said, there are no studies to indicate that supplementation with glutamine improves protein synthesis in healthy, well–fed adults (as opposed to humans and rats in diseased or under–fed states).

To the contrary, in fact, several studies conducted with healthy adults showed that supplementation with glutamine has no effect on protein synthesis, muscle performance, body composition, or the prevention of muscle breakdown[54–55].

So, while supplementation with glutamine may not provide an anabolic boost, its anti–stress and anti–fatigue benefits make it a worthwhile buy if you're exercising regularly, intensely, and for prolonged periods.

NITRIC OXIDE SUPPLEMENTS

These supplements are commonly composed of the amino acids arginine, citrulline, and beta–alanine, with claims of stimulating the body's production of a substance called nitric oxide. Nitric oxide (NO) widens blood vessels and thus enables more oxygen and nutrients to get to the

muscles (as the blood transports oxygen and nutrients).

While this sounds like another dubious marketing pitch, there are studies to support these claims[56–58], and I have found several of these products helpful.

That said, most pre–workout drinks these days contain these "NO–boosting" aminos though, so buying them separately isn't necessary. But if you're not taking a pre–workout, or your pre–workout drink doesn't contain arginine, citrulline, or beta–alanine, then you could benefit from a good (properly dosed) NO–booster.

MULTI–VITAMINS

Vitamins and minerals are necessary for many metabolic processes in the body and are important in supporting growth and development.

Vitamins and minerals also are required in numerous reactions involved with exercise and physical activity, including energy, carbohydrate, fat and protein metabolism, oxygen transfer and delivery, and tissue repair.

Deficiencies in key vitamins and minerals, such as B vitamins, vitamin C, iron, and magnesium, can cause many performance problems such as anemia, impaired muscle function and work capacity, and reduced aerobic and muscular endurance.

As you would expect, exercising increases your body's vitamin and mineral requirements, and as the intensity, duration, and frequency increases, so do your body's needs for micronutrients.

While research has shown that eating a variety of foods can provide adequate vitamins and minerals[59], achieving enough variety is often easier said than done when considering food preferences and availability.

For example:

- If you eat insufficient fruits and vegetables, you can become deficient in antioxidant nutrients such as vitamins A, E, and C, which play important roles in helping the body combat the oxidative stress of exercise.
- If you eat insufficient fish, beef, or poultry, an iron deficiency can develop. This leads to impaired muscle function and work capacity and, if uncorrected, this can lead to anemia, which can take 3–6 months to reverse.
- If you don't get enough zinc in your diet by eating foods such as beef, poultry, beans, dairy, and nuts, you can develop a zinc

deficiency, which can impair its ability to build and repair muscle tissue and produce energy.

The story is the same for each of the essential vitamins and minerals: if your diet is low in a certain type of food, you're probably getting too little of one or more vitamins and minerals, which results in negative side effects. Further complicating the matter is the fact that several studies show a long–term, steady decline of micronutrients in our food due to soil depletion and agricultural practices designed to improve traits (size, growth rate, pest resistance) other than nutrition[60].

Unsurprisingly, then, research has shown that many athletes underconsume micronutrients, and thus can benefit from supplementation[61]. Further, your risk for vitamin and mineral deficiencies increases when you're restricting your calories (dieting to lose weight), making supplementation even more desirable under those conditions[62–65].

So, the bottom line is this:

If you eat substantial amount of a wide variety of foods every day, you may be getting everything you need in the way of vitamins and minerals from your food. But many people aren't, and supplementation can help provide what's missing.

I take a multi–vitamin every day for this reason, and recommend that you do too.

CLA

Conjugated linoleic acid, or CLA, is an essential fatty acid that occurs naturally in dairy products and meats.

Multiple studies have confirmed that supplementation with CLA helps reduce body fat and prevent weight gain[66–69], and also helps preserve muscle by lessening the catabolic effect of training on muscle protein[70].

Like any truly helpful fat loss supplement, CLA is no wonder product, but it does give a little boost to your fat loss regimen.

Fat Burners

The weight loss industry is HUGE (like $30 billion+ huge) and scams abound. It seems like a new "wonder ingredient" takes the media by storm every couple of months, and millions upon millions of dollars are quickly wasted on crap like acai berry drinks and resveratrol pills.

Many people incorrectly believe that a pill can trigger massive fat loss. This simply isn't true.

There are, however, certain "fat burner" supplements can help speed up the process of losing weight when you're dieting and training properly.

The most effective ones rely on caffeine and other stimulants to boost the metabolism, but there are a few other ingredients that can help too.

Instead of breaking down the various ingredients, just check out the fat burners I recommend in the bonus report. They're backed by sound science, and I've used them extensively and can confidently say that they work.

GREEN TEA EXTRACT

Green tea extract is an herbal product derived from green tea leaves. It contains a large amount of a substance known as a "catechin," which is responsible for many of tea's health benefits[71].

One of these benefits relates to weight loss. Research has shown that supplementation with GTE accelerates exercise–induced fat loss[72], and can help reduce abdominal fat[73], in particular.

GTE is an effective, inexpensive way to speed up your fat loss.

FISH OIL

Fish oil is a mixture of fatty acids, two of which provide substantial benefits to the body: eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). These are known as "omega–3" fatty acids, and are considered "essential" fatty acids, meaning they can't be synthesized by the body—they must be obtained from the diet.

The two most popular types of omega–3 fatty acid supplements are fish oil and oil from the seeds of plants like flax, hemp, canola, and others, which contain alpha–linolenic acid. Fish oil is a superior source of omega–3s, due to the body's inefficient conversion of ALA into EPA and DHA1[74,75] (whereas fish oil directly contains EPA and DHA).

Research has shown that supplementation with fish oil can...

Increase muscle protein synthesis[76,77].

Reduce muscle soreness[78],inflammation[79–80].

Decrease blood pressure[81,82], depression[83,84], negative effects of stress[85,86], and the rest for kidney and cardiovascular disease[87–88], as well as stroke[89] and metabolic syndrome[90].

Improve glucose uptake and insulin sensitivity in people with impaired insulin metabolism, and preserve it in the metabolically healthy[91–92].

Improve memory[93] and cognitive performance[94,95].

Prevent weight gain[96–98].

Speed up fat loss[99–101].

Simply put, fish oil is an incredibly effective supplement for maintaining optimal health and performance, both in and out of the gym.

As with every other health and fitness supplement, not all fish oils are the same. There are two forms on the market today: the triglyceride form, and the ethyl ester form.

The triglyceride form is fish oil in its natural state, and the ethyl ester form is a processed version of the triglyceride form that includes a molecule of ethanol (alcohol)[102].

While plenty of studies have proven the benefits of supplementation with fatty acid ethyl esters (FAEEs), research has shown that the triglyceride form is better absorbed by the body[103–105]. One of the reasons for this is the ethyl ester form is much more resistant to the enzymatic process by which the body breaks the oil down for use[106].

Another downside to the ethyl ester form is during the digestive process, your body converts it back to the triglyceride form, which results in the release of the ethanol molecule. Although the dose is small, those with alcohol sensitivity or addiction can be negatively affected. Research has provided evidence of cellular and organic toxicity and injury resulting from the ingestion of FAEEs[107–111].

And in case you're worried that the triglyceride form contains more lead, mercury, PCBs, or other contaminants, research has proven this to be untrue[112–115].

So, I highly recommend regular supplementation with fish oil. Like a multivitamin, it's a great choice for preventing many health issues.

THE BOTTOM LINE

The above supplements are the most commonly advertised and sold. You will undoubtedly run across other types as you browse the shelves at your local supplement and vitamin store. Do your wallet a favor and skip 'em all—especially the super–fancy sounding ones.

While you can make great gains without any supplements, if you're willing to spend some money to get the most out of your training, then I'd recommend the following supplements (and in this order, if you're going to get less than all):

- A protein powder

- A multi–vitamin
- Fish oil
- Creatine
- Glutamine
- A pre–workout drink
- Fat burner, CLA, and GTE (if cutting)
- An NO booster

And again, check out the bonus report if you'd like to see which brands and products I specifically use and recommend.

FINALLY! THE SIMPLE SCIENCE OF BUILDING A MUSCULAR, LEAN, STRONG, AND HEALTHY BODY THAT YOU LOVE!

FINALLY! THE SIMPLE SCIENCE OF BUILDING A MUSCULAR, LEAN, STRONG, AND HEALTHY BODY THAT YOU LOVE!

If you want to be muscular, lean, and strong as quickly as possible without steroids, good genetics, or wasting ridiculous amounts of time in the gym and money on supplements...then you want to read this page.

Here's the deal:

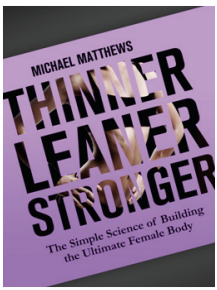
- Getting into awesome shape isn't nearly as complicated as the fitness industry wants you to believe.
- You don't need to spend hundreds of dollars per month on the worthless supplements that steroid freaks shill in advertisements.
- You don't need to constantly change up your exercise routines to "confuse" your muscles. I'm pretty sure muscles lack cognitive abilities, but this approach is a good way to just confuse you instead.
- You don't need to starve yourself or do weird cleanses to get lean. You don't even have to limit yourself to boring, tasteless food if you know what you're doing.
- You don't need to burn through buckets of protein powder every month, stuffing down enough protein each day to feed a third world village.

- You don't need to toil away in the gym for a couple of hours per day, doing tons of sets, supersets, drop sets, giant sets, etc. (As a matter of fact, this is a great way to stunt gains and get nowhere.)
- You don't need to grind out hours and hours of boring cardio to shed ugly belly fat and love handles and get a shredded six-pack. (How many flabby treadmillers have you come across over the years?)
- You don't need to completely abstain from "cheat" foods while getting down to single-digit body fat percentages. If you plan cheat meals correctly, you can actually speed your metabolism up and accelerate fat loss.

Imagine, just 12 weeks from now, being constantly complimented on how you look and asked what the heck you're doing to make such startling progress. Imagine enjoying the added benefits of high energy levels, no aches and pains, better spirits, and knowing that you're getting healthier every day.

Well, the bottom line is you CAN achieve that "Hollywood cut" body without having your life revolve around it--no long hours in the gym, no starving yourself, no grueling cardio that turns your stomach.

ALSO BY MICHAEL MATTHEWS



Thinner Leaner Stronger: The Simple Science of Building the Ultimate Female Body

If you want to be toned, lean, and strong as quickly as possible without crash dieting, "good genetics," or wasting ridiculous amounts of time in the gym and money on supplements...regardless of your age...then you want to read this book.

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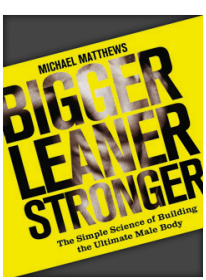

Bigger Leaner Stronger: The Simple Science of Building the Ultimate Male Body

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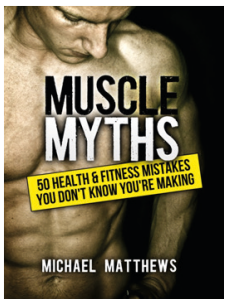

Muscle Myths: 50 Health & Fitness Mistakes You Don't Know You're Making

If you've ever felt lost in the sea of contradictory training and diet advice out there and you just want to know once and for all what works and what doesn't—what's scientifically true and what's false—when it comes to building muscle and getting ripped, then you need to read this book.

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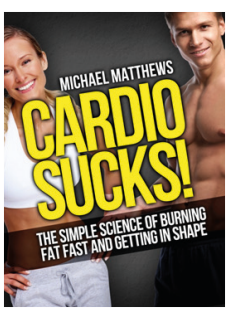

Cardio Sucks! The Simple Science of Burning Fat Fast and Getting in Shape

If you're short on time and sick of the same old boring cardio routine and want to kick your fat loss into high gear by working out less and...heaven forbid...actually have some fun...then you want to read this new book.

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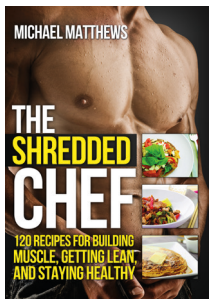

The Shredded Chef: 120 Recipes for Building Muscle, Getting Lean, and Staying Healthy

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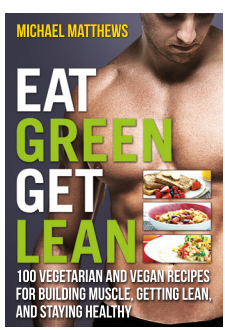

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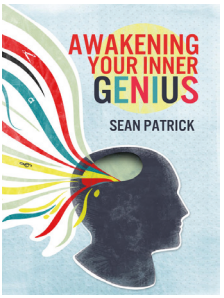

Awakening Your Inner Genius

If you'd like to know what some of history's greatest thinkers and achievers can teach you about awakening your inner genius, and how to find, follow, and fulfill your journey to greatness, then you want to read this book today.

(I'm using a pen name for this book, as well as for a few other projects not related to health and fitness, but I thought you might enjoy it so I'm including it here.)

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