

# MP45

NUTRITION: JUMPSTART YOUR METABOLISM



JARET GROSSMAN

CERTIFIED PERSONAL TRAINER AND MOTIVATIONAL SPEAKER

# ABOUT THE AUTHOR

Jaret Grossman is an esteemed motivational coach and CEO of Muscle Prodigy LLC (2010). With over 25 million views on YouTube he delivers powerful content that helps motivate millions of people and change their way of thinking to progress their standard of living and create a totally fulfilled life. He has produced iTunes albums that have topped the charts, written several books for working out and motivation, creates video series lectures explaining his philosophy, and does one on one coaching for high profile clients.

Jaret's experiences are drawn from his early childhood woes and muscular transformation. Jaret Grossman is living proof of how MP45 delivers life-changing results. He has been following the principles of this program for years and it has allowed him to gain 110 pounds of muscle in less than 4 years. In just his first year of training under the principles of H.I.S.T., he went from 98 pounds to 140 pounds. Jaret practices what he preaches and that's why he is always willing to reveal his body with his shirt off, unlike many other muscle-building authors who talk about building muscle and getting ripped without the results to show for it. Jaret currently weighs 202 pounds with 6% body fat year-round, with a max squat of 490 pounds, bench press of 320 pounds, and a deadlift of 570 pounds. He has performed feats such as squatting 325 pounds for 21 reps and 148 pounds for 104 reps, all while being able to run a 5:10 minute mile and do over 250 consecutive pushups without a break. Regardless of the physical transformations that H.I.S.T. training provides, there is no better program on the market that improves an athlete both mentally and physically.

After he was brought to the gym by his best childhood friend Richard Allen, he stayed committed to hitting



the weights and was able to double his weight in a few years. He consistently walks around at 200 pounds and 6% body fat all year round. This directly paralleled with his transformation of athletics. When Jaret took up wrestling in the 8<sup>th</sup> grade, he had a scrawny 98 pound frame and only won 2 out of 23 matches. When he started hitting the weights and implementing the philosophy of H.I.S.T., he compiled a record of 52-6 during his junior and senior years of High School. He eventually became New York's Nassau County Champion, the #1 freestyle wrestler in Long Island, a 3x All-American wrestler in college, and a bronze medalist representing the U.S. overseas at the Maccabiah Games. Jaret has suffered numerous injuries from competition including a torn labrum, split biceps tendon, torn LCL, torn meniscus, fractured rib, and fractured ankle. He knows how to successfully rehabilitate his body through strength training and the knowledge he has gained from pushing his body has transferred throughout all facets of life including education and business. He first attended law school at New York Law School and a joint MBA program at Baruch College. Not having a particular passion for law, he decided to start a business with Allen based on the

roots that transformed him. The two built up the health and fitness brand with over 300,000 unique visitors per month and over 1 million social media followers. After Jaret was starting to teach MBA students economics and policy at Baruch, he knew it was time for him to abandon the traditional educational institution protocol to follow his heart. After leaving the Baruch MBA program halfway through and graduating law school, he dove right into Muscle Prodigy. Instead of pursuing a career in law or finance, he built up a formidable business with Allen in just a couple of years, proving the model he preaches which is to always follow your heart's calling.



After understanding the concept of getting people to not only purchase his workout programs, but to actually stick to it, Jaret knew he had to tap into people's psychology. Knowing that strategy was less of the issue and people's mentality going into it was everything, he created motivational speeches on YouTube, many of which have garnered millions of views. Jaret has received thousands of emails explaining how he's transformed their life including

increasing their finances, pulling them out of depression, getting rid of their anxiety, helping them reach their dreams and goals, etc. Donned as ‘the next Tony Robbins’ by his clients, Jaret has positioned himself as one of the best motivational coaches in the world. He is able to produce an immediate change due to his unique perspective and the struggles he has faced internally. He made a pact to his fans at [Youtube.com/MuscleProdigyTV](https://www.youtube.com/MuscleProdigyTV) to do a daily motivational video for an entire year and has another YouTube channel [YouTube.com/JaretGrossman](https://www.youtube.com/JaretGrossman) in which he answers clients questions by explaining higher level thinking to help them break through to achieve fulfillment. Jaret also does one-on-one coaching.

Make the choice to revamp your life! You will change your life with Jaret - watch your finances go up, your health and relationships improve, and a feeling of happiness consume you like never before. Sign up for a coaching call at <http://www.JaretGrossman.com>



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# INTRODUCTION

MP45 is the fastest and most efficient way to build lean muscle mass, torch the body fat, and to look and feel your greatest. MP45 is the ultimate guide that consists of a detailed training regimen and nutritional routine along with life altering principles that will leave you with the body you have searched to acquire for years, but have never been able to do so thus far. With my assistance as provided in this program, you will get that body that you have always searched for in just 45 days. Not only will you look great, feel energetic, and be a much healthier individual internally after these 45 days are over, but your life will be revolutionized and be completely changed for the better before your eyes.



This program is for 45 days, or just over 6 weeks. Thereafter, your appearance and personality will be changed forever. This is a guarantee so long as you strictly follow this program in detail. Every word in here is for a reason, and don't shrug off anything said as being trivial to your goals. The little things are important.

Furthermore, after these 45 days are over, you choose to do my MP45X Program, which is the lifestyle program to follow after. When starting that program, I hope that you continue with the same desire and passion that you started with on day one here. As I will continue to preach, a transformation of your body necessitates a lifestyle change and a mindset change. You are encouraged to follow these principles for the remainder of your life. If you follow what is outlined in this program, your body will transform towards one you have always dreamed of, but be aware that if you don't maintain these principles, the results will fade as soon (or even quicker) as they came. Stay true to yourself for life.



This program focuses on two aspects: Nutrition and Training. Both parts of the equation are an essential piece of the puzzle and this program revolves around you to conform your lifestyle to the principles set forth in MP45. If you miss a day, you will not see the guaranteed results that are preached. Every meal counts. Every rep makes a difference. Every sprint gets you one step closer to that goal. Every time you stray from the path, it takes you one step further back.

Not only will you be provided with the most effective training, nutritional, and recovery principles that you can apply to your lifestyle, but you are also given a detailed day-by-day outline of a training regimen and nutritional meal plan. I, on behalf of Muscle Prodigy, bestow upon you exactly how to train your body, what you are to train, and what you should eat for every single day so your body becomes the machine that it is certainly capable of to build muscle mass, shred body fat, and thwart off the fat for good.

I guarantee the results you are looking for, but you need to follow the two philosophies exactly as it is mapped out for you. Not only will you look good with this program, you'll feel even better, ready to attack the world with a heightened sense of purpose. You will be provided with that "look good, feel good" attitude that will transcend into all of your other endeavors. You'll notice that the hard work you put into this program will directly translate into all facets of life.

The hard work you'll put in here will teach you about the rewards that diligence, persistence, and perseverance produce and how hard work always pays off in the end, no matter what you do. When you're tested in the real world with difficult tasks, you can always refer back to the hard work you put into MP45 and use it as fire and energy to complete those arduous and demanding tasks with pride, distinction, and an unparalleled level of excellence.

# NUTRITIONAL PREFACE

While this program focuses on two aspects, your main focus is going to be on nutrition and creating the proper hormonal environment within your body. While training is important to build muscle, nutrition and hormones will provide you with the physique you are looking to achieve after you stimulate the muscle. You can train until you are blue in the face, but if you don't provide your body with ample time to recover and the adequate amount of nutrients at the proper times, you'll look like you don't even train at all. While you must train hard to achieve your goals, nutrition is going to comprise of the bulk of what you look like. No wonder the expression "you are what you eat" still sticks today. Therefore, what you put into your body is going to equate to exactly how you look. A lean physique always starts with nutrition, and that's why it's paramount to understand nutrition before you tackle training and recovery goals.

There is a distinct difference between the two terms "nutrition" and "diet" when it comes to a health and fitness program. Diet is generally used as a short-term phrase, while nutrition is a long-term commitment. This program focuses on the word nutrition, simply because long-term nutrition inherently necessitates a way of life, while short-term diets do not work. While you may shed a few quick pounds off of a diet, you will find yourself deviating from it in no time at all, and thus creating the improper hormonal balance required to shed body fat and keep the body fat off for an



extended period of time. Diets are fads, that when applied, result in disaster due to the fact that they are impossible to maintain in the long run. Diets are often too restrictive and too limited, making them too easy to stray from. Diets make you crave for everything imaginable, and often when that happens, your mind is overwhelmed and just caves in to the gratifications of indulgences. A little cheat meal here, another one there, and so forth, until you look into the mirror and notice yourself heavier than when you started. Sound familiar?

The reason why these diets are so popular across the nation is because the biggest misconception out there is that the *only way* to lose weight is to *severely* cut calories; hence, why these liquid diets and no-carb diets are so rampant. However, not only are these sacrifices so harmful to your health, but they are so inconsistent with the goals

you are trying to achieve. Constantly restricting your calorie intake can actually slow your metabolism and thus, slow down weight loss. Furthermore, it will create the improper hormonal balance where you will decrease your testosterone levels (beneficial hormone that aids in building muscle and burning fat) and increase your cortisol levels (stress-induced negative hormone that eats away at precious muscle tissue and puts on unwanted body fat). In addition, many diets and weight-loss programs promise life-changing results in a short period of time as long as you keep yourself motivated. Nevertheless, once you stop the diet or weight-loss program, you may have serious problems keeping the weight off now that your body's basal metabolic rate, or rate at which it burns calories throughout the course of a day, has lowered. You rehydrate yourself to optimal levels, and return to "real" food. In fact, most people have this problem and they don't understand why their efforts are fruitless endeavors.



The answer is in the fact that losing weight and keeping it off comes from a complete overhaul of your lifestyle. It is not a singular event that can be changed in an instant; however, it is a gradual process that takes some time and hard work, whereupon everything you put into your body has an impact on your

body's basal metabolic rate, the rate at which you burn fat and build muscle, and your overall appearance. The second you go back to your old eating habits from a diet, the weight may pack on. Instead, you're going to learn the proper way to lose weight, which is not by starving yourself, but by providing your body with just enough to feel energetic and stay active yet still burn fat in the process.

So now that you understand that nutrition is a long-term commitment, it can now be further discussed about proper ways to achieving a shredded physique with the ripped abs you've always strived for.

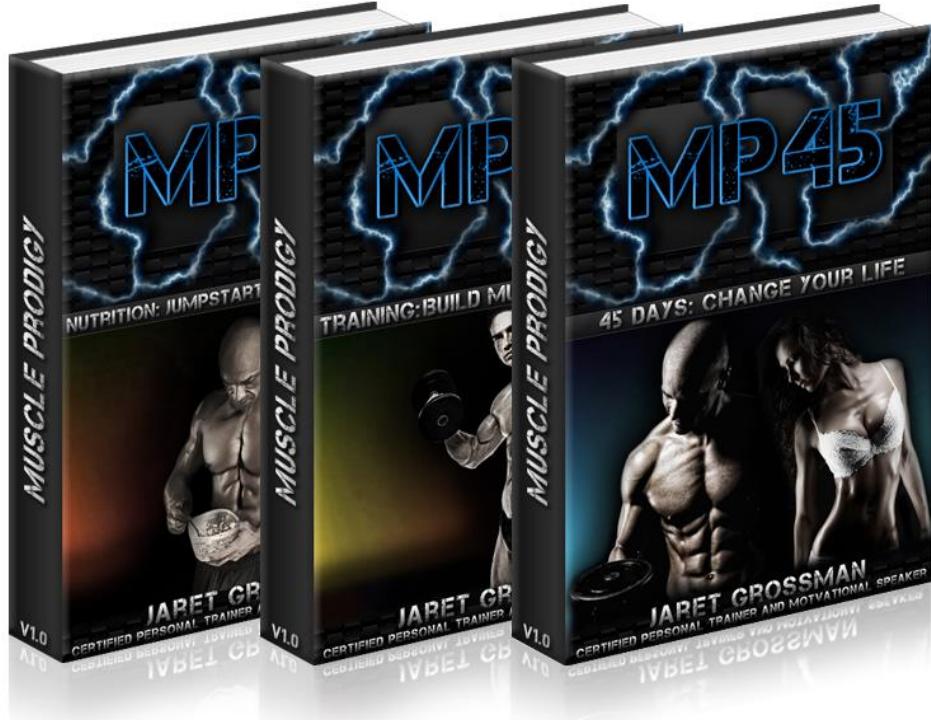
Here's an analogy for you:

Consider your stomach and internal organs a furnace that is holding onto a fire. The fire is what keeps the fat burning process going. Consider wood the food you put into your body. If you don't provide any wood to that fire, it will go out and the fire will eventually dissipate. If you go too long without

providing wood to the fire then it will also go out. Also, on the other end of the spectrum, if you provide too much wood at any one period of time, you'll smother the fire and it too will dissipate. Tom Venuto is a great resource that I've used for much of this material.



Similarly, if you don't provide your body with enough of the proper nutrients and at the appropriate times, your body's fat burning process will be put to a halt. Also, if you provide it with too many macronutrients (i.e.- protein, fats, and carbohydrates) in one sitting, it will smother the fat burning process, putting it to a halt as well. You want to stoke the fire, but never smother it at any one moment. That's why the nutritional information provided and the timing within those meals are so very important to follow as it will help kick start the fat burning process and allow it to continue for a prolonged period of time. MP45 is the solution you've been seeking for to reach your goals. It is a proven science that contains dramatic results.



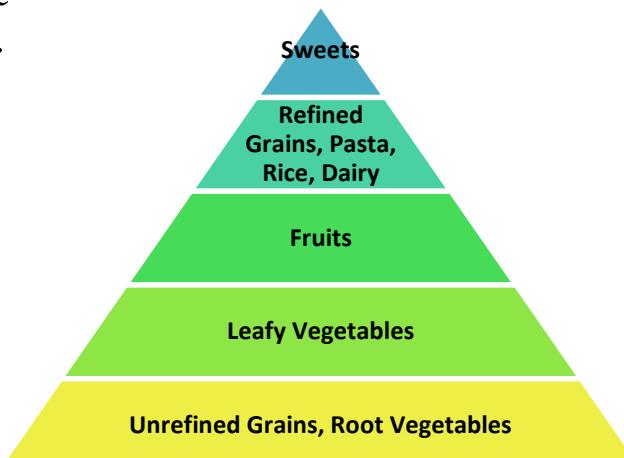
Completing MP45 will result in a complete overhaul of your habits and an absolute lifestyle change. The way you eat needs to change for the better, and it needs to change forever. You need to eat well-balanced meals all day long and not just on some days, but all week long and even all year long. It begins with consistency and a solid foundation that needs to be followed through on a daily basis. You need to follow these nutritional guidelines whenever you enter the kitchen, whenever you sit down to a table at a restaurant, or whenever you're deciding what to select at the deli counter. What you put into your body is paramount.

# BASIC NUTRITIONAL INFO

*Some things to get acquainted with before you get started:*

The basic measure of how much one takes in per day is based upon a measurement called calories. A calorie is a unit of heat required to raise temperature of one kilogram of water by one degree Celsius. Calories are in food and a certain amount of them are needed for sustenance of bodily functions throughout the day. Too many calories eaten throughout the course of a day, or several, will cause weight gain. Healthy eating will ensure that calories are kept in check to make sure you get enough of your energy needs, but keeping them low enough to the point where weight gain doesn't occur.

The average amount of calories one needs throughout the day varies from person to person based upon one's metabolic processes and functions.



However, most men need roughly 2,700 calories in the course of the day, whereas women need around 2,000 calories. Nevertheless, age, height, weight, and metabolism all affect the amount of calories required. The more body mass and the higher rate of metabolic functioning one has will translate into more calories required to sustain those energy levels. In order to lose weight, you need to enter a caloric deficit, whereby you consume less calories than you burn throughout the day, either through exercise, less food intake, or a combination of both. In order to gain weight, you need to enter a caloric surplus, whereby you consume more calories than you burn throughout the day, through increased food intake. One pound (muscle or fat) is equivalent to 3,500 calories. That means you need to consume 3,500 calories more than you burn to gain weight and vice versa. However, the types of foods and amount of those types are very important.

*As discussed below, your new diet will look like the following:*

Protein-1 gram of protein = 4 calories



You can only digest approximately 35 g of protein per serving.

#### *Functions of Protein:*

- Your muscles, organs and immune system are made up mostly of protein.
- Protein is the body's main structural nutrient.
- Protein builds up, maintains, and replaces the tissues in your body.

#### *Preferred Sources of Protein:*

- Beef
- Poultry
- Eggs
- Dairy Products
- Nuts
- Seeds
- Legumes

**Carbohydrates-1 gram of carbohydrate = 4 calories**



### *Functions of Carbohydrates*

- Carbohydrates are the preferred energy source of the body for vital metabolic processes.
- Carbohydrates supply immediate energy to the muscles for activity.
- Carbohydrates are constituents of cellular substances, enzyme cofactors, and structural components of cell walls and cell membranes.

### *Preferred Sources of Carbohydrates:*

- Oats
- Brown Rice
- Legumes
- Breads
- Potatoes
- Whole Grains
- Fruits
- Vegetables

Carbohydrates will make or break your physique. While carbs are

necessary, your body responds to certain carbohydrates better than others. Selecting the right carbohydrate takes an incredible amount of willpower and knowledge. To select the correct ones to incorporate into your nutritional plan, you need to follow what's called the Glycemic Index.

The Glycemic Index is a measurement that gauges how slow the sugars from food are released into the bloodstream. You always want to have sugars released very slowly into the bloodstream



throughout every time during the day except for breakfast and around your workout, the reasons for which will be discussed later on. Foods are ranked from highest to lowest based on the time it takes for them to be digested and the sugar levels to be released into the bloodstream thereafter. The higher the glycemic index of a food, the faster that food is released into the bloodstream. This is something you want to avoid at all costs except for those previously two mentioned times of the day. Below is a chart of foods with their respective glycemic indexes. Stick to the foods on the right and avoid the foods on the left.

## GLYCEMIC INDEX CHART

<i>High Index Foods</i>			<i>Low Index Foods</i>
Maltose	110	Whole Wheat Bread	50
Glucose	110	Brown Rice	50
French	100	Peas	50
Modified Starch	95	Sweet Potatoes	50
Scones	95	Banana	50
Mashed Potatoes	92	Whole Wheat Pasta	50
Doughnuts	90	Baked Beans	48
Potato Chips	90	Oatmeal	40
Corn Flakes	90	Whole Grain Pasta	40
White Bread	90	Kidney Beans	40
Rice Krispies	85	Fresh Fruit Juice	40
Puffed Rice	85	Pumpernickel Bread	40
Pretzels	85	Tomato Juice	40
Wild Rice	85	Minestrone Soup	39
Rice Cakes	85	Pear	98
Honey	85	Apple	35
Bread Stuffing	85	Peach	35
Popcorn	75	Quinoa	35
Refined Cereals	70	Dried Apricots	30
Chocolate Bars	90	Carrots	30
Soda	70	Dairy	30
Cookies	70	Beans	30
White Rice	70	Chickpeas	30
Pasta	70	Fresh Fruit	30
Croissant	70	Lentils	29
Bagel	70	Kidney Beans	28
Taco Shell	70	Chickpeas	28
Pancakes	68	Barley	25
Preserves	65	Cherries	20
Cream of Wheat	65	Split Peas	20
Cornmeal	65	Peanuts, Walnuts	15
Couscous	65	Tomatoes	15
Raisin Bran	60	Green Vegetables	15
Basmati Rice	60	Broccoli	10
Bran Muffin	60	Cabbage	10
Pita Bread	60	Hummus	6

(Chart compiled from various sources)

Fats-1 gram of fat = 9 calories



### *Functions of Fats:*

- Fats facilitate intestinal absorption.
- Fats transport fat soluble vitamins such as A, D, E, and K.
- Fats are an energy storage nutrient in the body.
- Fats are used as a source of energy for activity.
- Fats protect the heart, kidneys, and liver from damage.

### *Preferred Sources of Fats:*

- Fish Oil
- Egg Yolks
- Olive Oil
- Avocados
- Nuts
- Seeds
- Dairy Products
- Saturated Fats from Meats

# MAJOR NUTRITIONAL INFO

Make sure to follow these tips throughout every moment of every day throughout these next 45 days. Even while you are at work, you should be thinking about what your next meal is going to be. If you currently don't have a six pack but you are trying to get one, it needs to be your complete business to do so. Your mindset needs to be totally focused on what you are putting into your body at the next meal, ensuring that you are getting the proper nutrients at the right times of the day. Remember, according to studies, if you do something for 21 days, it becomes a habit. Make it a habitual routine for you to constantly think about how your body is going to change for the better. Follow these sure – fire nutritional tips to make sure your furnace burns fat at lightning speeds.

THINK ABOUT YOUR PROGRAM 24/7

1

You need to be thinking about what you are consuming throughout the day. You need to move on from the days when you grabbed a bag of potato chips and didn't think twice about it. There must be no more nights eating ice cream and popcorn in which you come to a full dismay in the morning when you look at yourself in the mirror and realize the food that you ate only put you a step back from your goal.



You need to be cognizant of everything you are putting into your body. The more you think about it, the easier everything will fall into place. By thinking about it, you'll realize what types of foods you are consuming and which ones are healthful and which ones are adding to your waistline. You want to be

treating your body like a temple and everything that goes into your body needs to be going in for a reason other than satisfying your taste buds. Your purpose is to acquire the physique you want and it certainly begins with nutrition. Therefore, you need to plan your meals in advance. Think about what you're having for lunch. Think about what you're having for your midday snack and plan accordingly. If you know you're going to be at work all day and don't have access to purchase something healthy, make sure to bring a healthy snack with you in the morning. If you're going to a baseball game and all they serve there is pizza or a hotdog, make sure to bring turkey and mustard on whole wheat bread. This lifestyle change starts now and it starts with you being fully aware of how you're approaching your objective. Commit to this goal fully!

## BE AWARE OF YOUR BODY

2

You need to treat your body as a whole new element than you're used to. You need to see how your body responds to every little thing you do and in essence, you need to talk to it and have it talk to you back to see what tweaks you need to make in your regimen. Change your lifestyle and see what



works and what doesn't work and how it reacts to every kind of food you eat. These basic nutritional principles are going to help you tremendously but remember that a majority of this process is trial and error because simply everyone's body structure and composition is different. Some people have a hard time losing weight, while others have a hard time gaining weight no matter what they eat. Everyone has a different metabolic rate and some people need to consume substantially less calories than other people (who even weigh the same

amount as them) to lose the same amount of weight. Others need to consume significantly more calories than others in order to sustain their body weight levels. That's just the way it goes and you need to constantly look at yourself to gauge how your body responds to the changes in the lifestyle you make.

The mirror is going to be the only standard unit of measurement you are going to concentrate on. Weight, body mass index, and these other guides will not explain to you the real deal lying underneath your body.

There are 250-pound athletes with a BMI (body mass index) level of what

would be considered obese in an average person who are in better shape and better overall health than many 150 pounders who have a “normal” BMI. The true measure that you have to look at is your body fat levels that lay in the subcutaneous tissue resting above your muscular tissue. Body fat percentage is the best gauge; however, many body fat measurement tools are very inaccurate.

Do not fall for these gimmicks that tell you they will test your body fat levels (i.e.- scales with the feet pads on them, handlebars you hold, calipers, etc.). The scales that allegedly measure body fat work by sending an electromagnetic pulse throughout your body and the longer it takes to receive the signal back, the higher the body fat percentage. However, this is very inaccurate because lots of other assumptions and variables are held constant.

The only real accurate way to measure your body fat levels is to go to a facility where you can be weighed underwater after exhaling all of the internal air held in your lungs and subtracting that from your real body weight (because fat is less dense than water and muscle is more dense than water). This is a very long, tedious process that is quite expensive. Therefore, you must settle for a mirror, which is the best alternative to measure body fat. So, stop concentrating on the



scale and your weight. While goals of “I want to lose 20 pounds” have good intentions, they do not reach the heart of the matter and the root cause, which is body fat.

The real statement that same person should be saying is “I want to drop my body fat percentage from 20% to 10%”. Since it has been emphasized that accurately measuring your body fat is quite difficult, the mirror will suffice as a tool to tell you how your physique is doing.

If it looks like you lost body fat, you’ll see new muscle appearing. This is because adipose tissue rests above the muscular tissue and hides it. Once you remove that excess tissue, you’ll begin to see your hard-earned muscle and the new striations, vascular veins, and rock-hard muscle bellies that come with having low body fat levels. If you look great, the mirror will show that no matter how much weight you lost or gained. If you are incorporating the proper nutritional regimen and

exercise, you could gain muscle and lose fat. This may equate to the fact that you are weighing the same on the scale, but your body fat percentages will be much lower considering the muscle to fat ratio just increased. To give you a heads up of what you should be looking for in the mirror: (generally speaking) in order to see a vein in your upper arms (where the two bicep heads meet), you need under 13% body fat. In order to see your abs, you generally need under 10% body fat.



So use the mirror and look at it often. You need to look at the mirror literally after every meal and after every workout. This isn't narcissism but this is so you can see what has been working for you and what doesn't. The more in tune you are with your body, the more cognizant you will be about what you put into it and how you treat it. Additionally, the more you look at yourself, the more you notice how your body responds to certain things you do. If you look at yourself in the mirror throughout the day, you can properly gauge your progress and it will help you develop that mind-body connection.



"Rome was not built in a day". Great things don't happen overnight. You need to be consistent. Diets are fads. They don't work because they are too restrictive and actually starve you. Once starved, your body will reach a breaking point where it is too tempted to indulge and too fed up to continue. Furthermore, diets

create an improper hormonal balance that will decrease testosterone levels and increase cortisol levels as previously mentioned. Additionally, if you starve yourself for more than 4 hours, you will slow down your metabolic rate, or the natural rate at which your body uses energy efficiently for normal daily metabolic processes. This causes your body to search for food elsewhere and sacrifices your muscle tissue as a result. The less muscle you have, the less fat you burn.

You want your daily basal metabolic rate to be as high as possible because you want to still remain in fat-burning mode long after you exercise, in which you may be doing daily chores, working a job, and/or even watching your favorite television program on the couch. These methods will allow you to burn a tremendous amount of fat even while relaxing, so long as you follow the principles precisely. In addition, the more muscle you have, the more fat you burn since your basal metabolic rate will be increased to sustain the muscle mass. Change the way you live forever and you will feel and look much better.



Male or female, you need to eat close to every two hours. When you do this, your metabolism skyrockets; when your body knows food is coming, it can use the food you eat as readily available energy opposed to storing it as body fat for energy later.

The three meal mantra is done and outdated. When you only eat three meals, you overcompensate for what you really need (your body says to you, "I'm starving, I haven't eaten in forever, I need to eat a lot of food right now.") while simultaneously slowing down your metabolic rate (you let the analogous fire go out). This is a horrible approach. If you eat smaller meals, more frequently throughout the day, your metabolism will increase tremendously. If you eat every 2-3 hours then you are telling your body that you are consuming enough calories at the appropriate times and it has no reason to hold onto this food. Therefore, it will be unlikely to store it as body fat, because it knows food is given to it whenever it needs. It works in the form of a paradox. When you consume too few calories, your body goes into starvation mode and may actually hold on to these calories, which prevents weight loss. The reason you want to stay away from heavy meals is because your body only needs so much at once and can only digest so much food at once. Like previously mentioned, you don't want to smother the fire, you want to stoke it and keep it going. If you eat too much, your body will fail to properly utilize all of those macronutrients and calories, which instead stores food in the fat cells. Eating smaller meals helps because there is less food being stored as fat. When your body is burning off excess fat, it can continue to burn off old stores of fat and lose even more weight. Furthermore, when your body goes more than 4 hours of not eating, it catabolizes your muscle mass to use as energy. The more muscle you have, the more fat you burn. You need to prevent the wasting away of muscle tissue at all costs.

Every time you put something in your body, you need to think of it as putting food in the trash. When your body gets overfilled with too much food without taking it out, you have a disaster: an overweight, obese mess with no muscular definition because it is covered in adipose tissue. Every time you put something into your body, you need to make sure you "take out the trash when it gets filled up", meaning to expend that energy. So, the food you put in either has to be going towards muscle reparation or energy to get you through your workouts. Nonetheless, you must not forget to avoid overtraining at all costs (which will create the improper hormonal environment for muscle building and fat burning). This is a balancing act that needs to be followed properly and will be discussed later.



CUT THE JUNK FOOD OUT IMMEDIATELY

7

Junk food is entitled “junk food”

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because it truly is food that is junk for your body. These foods are filled with high-fat, high-sugar content, containing empty calories with no nutritional value; in turn, it is a disaster for your waistline as they typically go straight to body fat stores. Not only do they provide you with excess body fat, but they don't even provide you with any extra energy. Instead, they actually cut down your energy stores and make you feel lethargic, tired, and have a sense of unwillingness.

Cut out the chips, the salad dressings (other than olive oil and balsamic vinegar), the soda, donuts, cakes, pastries, cookies, candy, pretzels, goldfish, juices from concentrate, ice cream, popcorn, milk chocolate, white bread, anything that has added sugar to it, etc. From now on, any processed food or snack that isn't a natural whole food must be considered as junk food and you should rid of these foods from your nutritional regimen. If you can't do it all at once then pick one thing and eliminate it from your program for a week. See how that works and continue to eliminate more and more junk from your program after each successive week. You may think like this is a big sacrifice now, but in due time you won't miss these things. This is because of the increased energy levels and the "feel good" attitude you'll have as a result from eliminating this junk from entering your body, which will make you wonder how you ever survived on them in the first place.

Furthermore, we must look out for foods that we once thought are healthy but that contain certain ingredients in them that will do tremendous damage to your body. There are many ingredients in foods that are more harmful to your health than you may think. Most food manufacturers and restaurants use taste as their

number one priority, at the expense of your physique. With the exception of a few restaurants that make healthy dishes their priority, the majority look to cut down on costs and increase taste to attract more sales. Even with healthier

alternatives, such manufacturers and restaurants want to make a sale above all others, knowing that it is essentially the taste that keeps you coming back for more so they put these ingredients in there to achieve that.

*The following three ingredients are some of the most common yet detrimental types of ingredients in restaurants and grocery stores alike:*

## High Fructose Corn Syrup

### What is it?

HFCS is a man-made ingredient that is a combination of fructose and glucose. HFCS is made by changing the sugar (glucose) in cornstarch to fructose, which is another form of sugar. It is a cheap, easy to transport and keeps foods moist, which makes these things so appealing to food manufacturers.

### Why it's bad?

Research says that the body absorbs and uses fructose and glucose differently. Glucose is used in the body to deliver energy to cells by increasing the production of insulin. In addition, glucose regulates hunger and fat storage by increasing the hormone called leptin. Both insulin and leptin act as signals to the brain that we are full from eating and control body weight. Lastly, glucose regulates food intake by lowering the production of the hormone called ghrelin. Ghrelin is a hormone that increases hunger and appetite. Hunger declines when ghrelin levels decline, which is exactly what happens when eating carbohydrates containing glucose. However, fructose is used much differently in the body. Fructose does not increase insulin secretion, leptin production or lower ghrelin levels. As a result, some studies conclude that fructose will not regulate food intake and decrease hunger. In other words, your body is essentially tricked into craving more food and consequently storing more fat. It's not that fructose itself



is so bad but the fact that many people are consuming much more than they think. Even with some contradicting research and some advocacy advertising campaigns from the corn industry, high fructose corn syrup is sugar. Sugar can and will most likely produce weight gain and other numerous health problems

amounts.

## Monosodium Glutamate (MSG)

### What is it?

MSG is a flavor enhancer that is commonly found in Chinese food and various other foods.

### Why it's bad?

MSG is made up of a dangerous food compound known as excitotoxins. Excitotoxins are protein, which make brain cells fire their impulses when they make contact with it. The brain cells keep firing until they are exhausted and then die. MSG can be addictive and can cause serious weight problems. MSG has been linked to numerous health problems such as headaches, sleeping problems, strokes and diabetes. In addition, since these excitotoxins interfere with brain chemistry, it can cause problems such as brain cancers, depression and ADHD.



## Hydrogenated Oil

### What is it?

Hydrogenated oil is used to prolong the shelf life of processed foods.

Hydrogenated oil is the process of forcing hydrogen gas into oil at high pressure and temperature. This makes oil into a solid at room temperature, but also makes it very unhealthy.

### Why it's bad?

Hydrogenated oils contain toxic trans fatty acids, which cause numerous health problems like heart disease, cancer, diabetes and more. Trans fats increase bad LDL cholesterol, triglycerides and insulin levels and decrease good HDL cholesterol. As a result, this greatly increases the chances for heart attacks.

There are so many foods that contain these harmful ingredients. Instead of listing them all, read the ingredients on anything you buy. This is the most effective way in making sure that you are eating healthier.

By simply reducing some of these ingredients in your diet you could see some dramatic changes in both mind and body.



Natural, whole foods are the healthiest foods you can put in your body. It's no wonder why you rarely see a "fat" animal other than a human, besides those rare cases of fat animals such as the seal, walrus, and pig. The majority of animals are lean creatures. Look at a horse, dog, lion, tiger, or shark. These animals are very muscular and lean animals with striations shown in nearly all of their body parts. It's simply because they don't have these processed foods at their disposal and instead are forced to eat natural foods. A shark consistently eats one of the fattiest things walking this earth – a seal- and happens to be one of the leanest creatures on this planet. How is this so?



A large part of this is because what puts on body fat is processed foods and especially refined carbohydrates. Therefore, you must understand that weight gain cannot be explained by a direct causation between the particular macronutrient you consume and your body fat levels. However, there may be causation between the particular *type* of macronutrient you consume. For instance, a type of fat called trans fats (which come in the form of partially hydrogenated oils and are found in cakes, pastries, French fries, etc.) will directly contribute to fat storage. Refined carbohydrates in the form of simple sugars will also result in weight gain. You must avoid these at all costs and stick to natural whole foods that do not contain these ingredients in them at all. That means no sodas or juices either because these contain an exorbitant amount of refined sugars in them that do nothing but make you feel lethargic and add excess inches to your waist.

This processed junk that large manufacturing companies mass produce might taste good, but are truly physique killers. Stuff you think is healthy, probably is...and stuff you don't, is probably not. Eat the healthy stuff throughout the day and don't eat the unhealthy stuff. It's that simple. So what should you eat? Eat things like natural land-grazing meats, fish, whole grains like oats, beans, legumes, fruits, vegetables, barley, whole wheat breads and pastas, etc. These foods are ideal for your body and should constitute the basis of your meals. Make sure not to alter the foods though. So that means when cooking, you don't put on breadcrumbs and fry it up in unhealthy oils. Keep it simple!



At every meal, you must consume a protein source as the main part of your meal and everything else you have along with it, including healthy carbohydrates and fats should be secondary. Things like fish, meat, poultry, etc. are the absolute best way to ensure you are receiving the adequate nutrition your body needs.

Protein is also a good source of energy and absolutely essential for muscle reparation, fat burning, and overall health. The 8 essential amino acids out of the 20 protein building blocks need to be acquired from food, and your body cannot produce these on its own. Therefore, you must supply an adequate amount in order to survive.



### *“How much protein should I consume throughout the day? “*

Make sure that you are consuming 1- 1.5 grams of protein per pound of body weight throughout the course of the day. Your body cannot digest large amounts of protein all at once in one meal, however. A recent study showed that subjects who ingested 90 grams of protein in a sitting received no more benefit than those who ingested 30. Too much protein at once can be utilized, just not as efficiently as splitting up your protein intake throughout the day through several smaller meals. Also too much protein can be taxing on your such as your kidneys, liver serum levels, and consequently, your overall health could be compromised by entering into an acidic state.

Things that are high in protein are generally very lean and are very nutritional foods. Having protein with your carbohydrates slows down carbohydrate absorption as well, making it less likely for the carbohydrates to be stored as body fat. Furthermore, increasing your protein intake will increase your basal metabolic rate that was discussed earlier. A high protein diet has been linked to a higher allowance of calories that your body can consume without burning body

fat. This means that you can generally eat more substantial foods when looking to somewhat restrict your calories in an effort to lose fat. Also, protein is usually more filling than its macronutrient counterparts, the carbohydrate and fat molecules. For instance, a whole grilled chicken breast that contains 40 grams of protein is much more satisfying in terms of fullness than a 40 gram tiny 2 ounce dish of pasta. Each one has 160 calories (4 calories per gram of protein, 4 calories per gram of carbohydrate, 9 calories per gram of fat), but the 160 calories coming from grilled chicken will seem like a meal, whereas, the 160 calories coming from the pasta will seem like a tiny snack. This is going to play a major factor in your fat loss goals, because fat loss depends upon a caloric restriction in terms of burning more calories throughout the day than consumed. (However, if you take this too literally by undercutting this deficit of caloric output less caloric input by too much, then you will create the improper hormonal imbalance that was discussed earlier, and your body will slow down its basal metabolic rate in an attempt to hold onto fat because of the lack of nutrients you are providing it.) That means that you'll be more satiated by the lower caloric intake you opted for and this will greatly contribute to fat burning.

### Never Eat Carbohydrates Alone

Eating carbohydrates alone is a sure way to put on body fat. When you introduce carbohydrates to your body by itself and without the accompaniment of a protein or fat, your body responds to it in the form of an insulin spike.



Insulin is a hormone produced by the pancreas, which is necessary for glucose to be able to enter the cells of the body and be used for energy. Whenever you ingest a carbohydrate, your body immediately releases insulin to regulate your body's blood sugar levels because this hormone does not let your body let its blood sugar levels get too high or too low.

Your insulin levels will rise even more so depending on the *type* of carbohydrate consumed. The simpler a sugar it is, the larger the insulin spike. The more fibrous, the less of an insulin spike is created.

How does an insulin spike relate to your goals? An insulin spike can work in one of two ways- a beneficial muscle growth way or the disastrous fat growth kind. Obviously, you want the first one and not the second, but how do you avoid the

latter kind and only keep the first? An insulin spike really only contributes to muscle growth during two times of the day: directly in the morning and immediately post-workout. Your body is very sensitive in the morning when you first wake up because you just fasted for upwards of 8 hours and your body is primed to charge itself with some much needed nutrition.

It is also very sensitive after a workout because of all the glucose that your body has used for energy during the intense session, whereupon you depleted your glycogen, or molecules that function as secondary long-term energy storage. Insulin helps transport glucose to the muscle cells and is a very anabolic, or muscle-building, hormone because it allows for amino acids to be utilized much better and much faster in the human body.

Therefore, these insulin spikes are absolutely essential for muscle growth at these two times in the day, in which you want to consume simple sugars. However, consuming simple sugars at any other time of the day where your body's glycogen levels aren't depleted will result in an insulin spike that will lead to growth of the fat-cells. You must avoid this at all costs when looking to burn body fat.

Therefore, you must be cognizant of which foods are carbohydrates, which foods are proteins, and which ones are fatty acids. Some carbohydrate sources are grains, breads, oatmeal, barley, pasta, fruits, potatoes, etc. and must be eaten with their macronutrient counterparts- protein and fats, because like previously mentioned, protein and fats will slow down the absorption of carbohydrates. Remember when it was mentioned earlier that the more fibrous a carbohydrate, the less of an insulin spike growth factor? This is because the slower the absorption of the carbohydrate is, the less response your pancreas has to send out of this hormone so glucose can enter the cells. In turn, the slower your carbohydrate absorption rate is, due to mixing with protein and fats that slow down that absorption rate, the less of an insulin spike your pancreas will create. Therefore, make sure to eat your carbs along with protein and healthy fats. Furthermore, you must be aware of the Glycemic Index of each carbohydrate. The lower the GI, the slower the absorption rate.



This may sound like a no-brainer but too many times too many people completely neglect to eat throughout the day (tend to under-eat throughout the day) and too often does over-eating occur (tend to over-eat in one sitting). One thing you should keep in mind: "Never eat until you are full, but never go hungry either". Therefore, you should eat until you are satisfied, but not until the point where you feel full with that bloated feeling. Yet, you should never go hungry to the point where you get hunger pangs. It is a balancing act, but it is certainly manageable and why it should be constantly preached that you must eat small, frequent meals every couple of hours throughout the day. Your muscles need a steady supply of protein throughout the day and you also want to keep your blood sugar levels in check throughout the day so fat burning can be put into high gear. Eating slow, small, steady meals will accomplish this.

As was said earlier, you want to stoke the fire and consequently make it grow by supplying it with the appropriate amount of materials. You certainly do not want to supply it too little or too much- just the perfect amount. How can you determine what the proper amount is? Obviously, it varies from person to

person according to his or her genetic predisposition and activity level, but use the scale to determine this one.

Even though the mirror is your ultimate gauge, you should still weigh yourself every day in conjunction with looking at the mirror. This will help you determine if your caloric input is appropriate or not.  $3,500 \text{ calories} = 1 \text{ pound}$ . That means that if you cut your calories from its normal daily maintenance by 500 from either cutting your food intake or by expending it through exercise, or a combination of both, then you will lose 1 pound per week. So if you are gaining weight by 1 pound a week, then you need to cut your total caloric intake by 500 calories to determine your basal metabolic rate (the rate at which your body burns calories throughout the day performing normal activities and normal metabolic processes). If you are losing weight at a rate of 1 pound a week, that means that your basal metabolic rate is 500 calories higher than what you are consuming (not including caloric output through exercise, however). On the other hand, that does not mean that if you cut your calories by thousands of calories a day will the weight come off quicker. Just because something occurs at a given rate with one variable does not mean it stays at that rate throughout. As discussed earlier, if you go too under your caloric intake, your body will go into starvation mode and just shut down fat-burning stores. It thinks you won't get enough food to last you through the day so it will hold onto whatever you give it and expend the least amount of energy possible. This is counterproductive to your goals to encompass a fat-burning furnace.

Therefore, you must adjust the total amount of calories according to your needs and your goals. Write down and record everything you eat (including total caloric levels) and make sure you aren't over-eating (any caloric surplus will result in fat gain) or under-eating (too much of a caloric deficit will have negative consequences). A healthy weight loss is 1-2 pounds per week. Some people say "I lost 8 pounds today". Now that you know  $3,500 \text{ calories} = 1 \text{ pound}$ , you now know it is clearly impossible to lose that amount of body fat in one day's time. So what they really meant is "I fluctuated 8 pounds of water weight from the time I weighed myself earlier and now, and it will come back on as soon as I replenish my hydration levels to their original level."

So if your basal metabolic rate is 2,500 calories, you should aim to have a caloric deficit of 500-1,000 calories a day. This can be accomplished either through

reducing your total caloric input through consumption, increasing caloric expenditure through exercise, or a combination of both. Do not have a caloric deficit of anything more than 1,000 calories for reasons discussed earlier (it will create an improper hormonal environment and slow down your fat burning capabilities). Also, as your body stays in a continued caloric deficit, the body will eventually adapt to it and lower its basal metabolic rate accordingly.

Your body is a creature that is programmed to survive in the most complex environments. Therefore, your body's rate at which it will burn fat will eventually slow down unless you implement new ideas to trick it (which will be discussed later through carb cycling and a cheat meal). However, since you are new to this program and your body has not experienced quite a shock like the one you are about to provide it with, your body will be a fat-burning machine for the next 6 weeks or so, whereupon after that time frame you'll have to create trickery to keep fat-burning capabilities in high gear.

Also, make sure to spread those calories that your body requires evenly throughout the day. So, if you have a 3,000 caloric allowance, your best bet is to split up 3,000 calories over the course of 10 meals of 300 calories per meal.

Now applying what you learned: Let's say your basal metabolic rate is 2,500 calories and your goal is to burn 12 pounds of fat in 6 weeks while simultaneously getting stronger and putting on some serious muscle (200 lbs. to a rock-solid 188 lbs.). That means that you have to burn 42,000 calories in total over the course of 6 weeks. Therefore, you must enter into a caloric deficit of 1,000 calories a day. One way to approach this is through a combination of exercise and diet to reach those 1,000 calories a day. If you consume 500 calories a day less than what you already consume (2,500 to 2,000) by changing the amount of food you eat, cutting out all of the processed junk, and altering your macronutrient ratio to one consisting of a high protein diet to build lean muscle mass and increase metabolic output while simultaneously increasing your caloric expenditure by 3,500 calories a week through intense weight training and high intensity interval training cardio, you'll reach your goal in 6 weeks' time. Furthermore, you should look to split your meals up by 200 calories over the course of 10 meals throughout the day, whereby you are not over-eating or under-eating in any particular meal and stoking that fire, not smothering it.



*A lot of the reason why people tend to overeat is because of one of two things:*

- 1) Because they don't feel satiated from their meals; AND
- 2) They wait so long to eat that when they come across food they are so hungry that they want to gorge everything in sight. This results in faster eating than the proper hormones can regulate, which the brain cannot be told that their body is full in time.

Therefore, every time you sit down to a meal you should follow an order as to which foods should be consumed before other foods. For instance, you should always drink your cold ice water first. A lot of people think they are hungry when they are actually thirsty. This will fill you up and provide less room for the calorie-dense foods that you are going to gorge on. Then have your low-calorie foods second.

Foods like salad and vegetables should be consumed before you get to your protein dishes and carb sources. After you're done eating some steamed

vegetables, you should eat your lean protein source. This will fill you up much more so than a carb source as discussed earlier in the 40 gram chicken breast vs. 40 gram two ounce pasta snack. Then go after your healthy, low glycemic carb source before you get to the calorie-dense foods.

Also, since it takes much longer for your body to recognize that it received food

from the time you put it in your mouth, your best bet is to eat slowly. You should chew your food approximately 20 times before you actually swallow it. Not only will it be easier on your body to digest it, but it will provide your body the appropriate time to send the proper hormones to your brain that it is satiated from the nutrients you are providing it. We've all heard the term "graze like a goat"; that's what you are supposed to do. Eat all day long, but very slowly.

## WIN THE BATTLE AT NIGHT

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The biggest problem that many people have is winning the battle at night. Your body is usually very active during the day, taking care of things and walking around, but at night, generally people sit around the house, watch TV, and are generally inactive. While your metabolism doesn't slow at night, you don't release many hormones from being active such as GLUT-4 to stabilize your blood sugar. You especially have to be careful about what types of macronutrients you put into your body at night.

What time is considered night?

Generally speaking, it depends upon your daily schedule, what time you get up, and what time you go to sleep.



However, for argument's sake, let's say that you start your day at 8 AM and get to bed by midnight. Then your dinner should occur at around 7 PM, and that should be the cut-off for all carbohydrate sources. You should not take in any carbs after that. Regardless of your hunger, you must control it mentally and force yourself to abide by this rule. Keep your eye on the prize and in the morning you get to eat a grandiose meal, so just look forward to that and make sure not to sabotage all your efforts throughout the day. You will thank yourself in the morning because when you go to sleep, you will go the entire night sleeping without food where you won't even have a chance to think about your hunger.

The carbs are really key at night, because you want your glycogen levels to be depleted so we can be fat. Nevertheless, if you are active at night (i.e. - the only time you can exercise is late at night), then you can override this theory and apply the necessary post-workout principles that will be discussed later on.

So what can you consume if you're absolutely starving and need to eat every two hours? Well, since you shouldn't consume carbohydrates, you must stick to the other macronutrients- protein and healthy fats. You can eat foods like a bowl of cottage cheese, a small handful of almonds, a tablespoon of peanut butter, a tablespoon of coconut oil, etc. A small bowl of cottage cheese is your best bet because it has casein protein in it, which is a slower digesting form of protein that will release a steady supply of protein to your muscles while you are sleeping.

## Cottage Cheese

Cottage cheese is the perfect food for getting casein protein, a slow-digesting protein. Casein protein stays in your system for hours and gives you a constant supply of protein, as opposed to whey protein that is used in the body instantly. Casein protein is most ideal for sleeping hours, when your body is deprived of protein. When you sleep,

your body enters a catabolic phase. Yes...even when you sleep you burn energy.

Respiration, dreaming, and reparation require energy.

It needs to get the energy stores from somewhere.

Anytime you go more than four hours without eating, your body turns to its muscle stores, breaking it

down, so it can use that as its readily available energy. You want to avoid this at all costs. Cottage cheese is filled with casein protein, which is a very slow digesting protein that will keep your muscles supplied with protein all throughout the night and prevent this catabolic state. Furthermore, cottage cheese has an extremely high biological value (around 85%) that is ideal for



muscle growth. Cottage cheese also is high in calcium, which helps increase bone strength and density, which is essential in fighting off osteoporosis.

**Caveat:** Dairy isn't the most ideal food to have when wanting to lose weight due to it being known to cause inflammation. However, because of the probiotic cultures, the benefits outweigh the disadvantages for health and it is great for muscular growth. You are also better off with organic products that use whole milk, rather than low-fat which are loaded with rBGH hormones.

## EAT HEALTHY SNACKS THROUGHOUT THE DAY

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As mentioned before, you should eat every two hours in order to stoke the fire. Ideally, you should split up calories evenly throughout the day. As previously mentioned, if you eat 3,000 calories in a day, you should split it up over the course of 7-10 meals consisting of 300-400 calories apiece. However,

this is a rather difficult task and having jobs that consume the majority of your day can prevent you from doing this. Therefore, most of you cannot live a life like a bodybuilder where you concentrate solely on food. So instead, you have a time for sit-down meals and a time for quick little snacks. Still, this does not mean that you should neglect to eat every two hours. You need to stoke that fire, but you need to prepare yourself to snack throughout the day on healthy food choices.



The snacks will not constitute large portions, but will get you by energy-wise and will continue the fat-burning process by providing those much needed nutrients your body seeks throughout the day. So there is obviously going to be a discrepancy in the amount of calories between your sit-down meals and your snacks, but you need to keep it in perspective and remember not to over-eat during those meals and not to under-eat (or over-eat) during those snacks. You don't want to smother that fire, so you need to be very careful as to how much

you eat during the big meals, and make sure that you eat adequately throughout the day through your snacks.

You need to keep your blood sugar levels stabilized, your metabolism chugging and supply your muscles with food so you stay anabolic (muscle building) and don't go catabolic (muscle wasting). Never go more than four hours without eating, because the more muscle you have, the more fat you burn.

What are snacks that you can have in the office? Have things like a couple of hard-boiled eggs, a can of tuna fish, a handful of peanuts, an apple, a banana, a glass of milk, V8 vegetable juice, deli meat, Greek yogurt, etc.

## DRINK LOTS OF WATER

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Drinking water can be one of the more important solutions to your weight loss problems. Many people simply do not drink enough water so it will be hard to see true weight loss without drinking adequate amounts of water. Drinking water will do wonders for your body that you otherwise could not have imagined. This naturally occurring substance that represents 2/3 of the planet is so essential and vital for the body to function properly, but its' beneficial properties are often overlooked.



Everyone talks about this phrase “metabolism”. However, many people throw around the word without having the slightest clue as to what the word means and how it relates to fat loss. Metabolism can be defined as the process by which a substance is handled by the body. This is quite the vague definition; however so, there are many metabolic processes going on in your body and that is why it is given such an unclear definition. To carry out these metabolic processes, water is essential. For instance, the liver converts stored fat into energy for the metabolism of fat (how fat is handled by the body). The liver has a laundry list of over 500 functions like maintaining blood pressure, creating immune substances, storing vitamins, minerals, and sugars, etc., and converting fat is all but one essential process it carries out.

However, if the kidneys are water-deprived, the liver has to do the kidney's work in addition to its other 500+ tasks. Thus, this lowers the liver's total productivity in its other processes which includes converting essential fatty acids such as GLA, EPA, and DHA into the lipoprotein forms necessary to allow transport via the bloodstream to the 50 trillion cells requiring fatty acids, breaking down of toxins and hormones in the body, in addition to metabolizing carbohydrate and fat molecules to provide energy and nutrients.

Therefore, when the liver is not working to its full potential on its own tasks then it can't metabolize fat as quickly or efficiently as it could when the kidneys are working to their optimal levels. Therefore, if you deprive yourself of water, you're actually setting yourself up to store body fat since the liver can't metabolize it into energy as efficiently.

Therefore, you need to drink plenty of water and a lot of people do realize this. Consequently, they continue to get on a "liquid kick" for a brief period of time where they drink a hefty amount of water. However, during the first few days they experience frequent bathroom visitations, which could be very discouraging. This may seem like this new endeavor is a fruitless effort. Nonetheless, what your body is really doing during these first few days is getting acclimated to the new drinking habit and flushing out the subcutaneous water that is stuck between the adipose tissue and the skin layers. This process could take a long time, but it's actually so beneficial for you.

A lot of the reason why people don't look like they have any definition or muscle at all is not so much as the fat they possess, but the subcutaneous water that lies over the muscle tissue preventing the muscle tissue from being seen. This "water flush" will flush out the excess water and help reveal that hard-earned muscle. Your body realizes it doesn't need to save these stores anymore because it has confidence in the fact that you will keep providing it the necessary water it needs and it will eventually cease the flushing when it reaches an optimal level.

In addition, drinking water will improve your workout effectiveness. Muscles that have all the water they require can contract more easily, making your workout more effective. You should also up your water intake if you live in a hot climate or exercise very intensely because your body's water stores will be depleted naturally.

Do not drink water with additives or sugar in it. This will only hinder your efforts. Please drink only plain liquid ice water. If it's very hard for you, try a slice of lemon or lime in the glass for added flavor.



Drinking water will also decrease your appetite and there is a direct correlation between the amount of water you drink and how your abs will look. Also, drinking ice cold water contributes to major fat burning as explained below in the math formula depicted (it is done using the metric system because it is easier to follow):

An 8 oz. glass of water equals 240 grams of water. Ice water is roughly around 4 degrees Celsius, or slightly above freezing. Your body temperature is around 37.5 degrees Celsius. When you drink the ice water, your body needs to raise the temperature to its core temperature and expend calories to do so. It needs to bring it up by a difference of 33.5 degrees. Remember earlier we said that it takes 1 kilocalorie to raise 1 kilogram of water 1 degree Celsius?

So, we are raising 240 grams by 33.5 degrees Celsius so that's  $33.5 \text{ degrees} \times .240 \text{ kilograms} = 8.04 \text{ kilocalories}$ . Therefore, you will burn around 8 calories of food for every glass of water you drink. This may not seem like a lot, but if you drink 16 glasses of water a day, or 128 ounces (a gallon of water a day), that equates to 128 food calories a day. In a week, that is 896 calories. That means in less than one month, you'll burn more than a pound of fat and in one year you'll burn 13.312 pounds of fat. So, if you weighed 210 pounds, and I told you that you can drop your body weight down to 196.7 pounds by next year by changing the smallest thing in your entire lifestyle- drink more cold water and nothing else (no

exercise, no food changing habits)- would you take it? There's probably not a person in this world that wouldn't do something so simple!

However, do not take this as a weight loss miracle cure to the point where you drink non-stop because too much consumption of water can have serious side effects including hyponatremia (not enough sodium in the blood cells), an overall lowering of body temperature, a decrease in the functionality of the gastrointestinal tract, an overload on the kidneys, and possibly anemia.

To avoid this, this water consumption should be spread out throughout the day. It's not healthy at all to drink too much water at one time, so be sure to never let yourself get too thirsty and be cognizant to have water consistently.

## DON'T FORGET YOUR FRUITS AND VEGGIES

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Fruits and vegetables are known as superfoods because of their tremendous health benefits. They are loaded with nutrients including vitamins, minerals, and powerful antioxidants and have many fat-burning capabilities to use at your disposal. You should look to consume fruits and vegetables during every meal, because of the health benefits and the beneficial impact it will have on your physique. The calorie content in fruits and vegetables are so negligible to what they offer that you can literally eat as much natural raw fruits and vegetables that you want without it having any impact on your physique. It would be nearly impossible to find someone who has ever gotten fat from the



consumption of too many fruits and vegetables. Fruits and vegetables are low in calories and are nutritionally packed with vitamins and minerals. Fruit is awesome and although they have sugar, it is absorbed very slowly into the system and provides a lot of nutritional value. Just make sure not to have any fruit that is "added" with sugar (i.e.-many dried fruits) and be wary of fruit juices

because most of them are made from concentrate.

Some vegetables actually have a “negative calorie effect”, where the caloric level in them is so low and they are so high in fiber, that it actually requires more work for your body to break down and digest the food than the calories contained in the food itself.

*The following are some essential fruits and vegetables:*

### Avocados

Avocados are generally known to promote optimal health. They are a rich source of monounsaturated fatty acids including oleic acid, which is known to help reduce bad cholesterol.

Additionally, they are a good source of folate and potassium, which both guard against diseases like high blood pressure, heart disease, or stroke.



Avocados, which are rich in carotenoids and tocopherols, inhibit the growth of prostate cancer cells and protect your heart. This fruit also contains the highest amount of lutein among commonly eaten fruits. This superfood will help combat oral cancer as well. Furthermore, the high content of monounsaturated fats that are present will actually help you burn fat and help build muscle. Healthy fats are essential to a diet and this is one source to acquire them from. Avocados will also help regulate circulation throughout your body and maintain proper blood pressure and protect cardiovascular health.

### Blueberries

Blueberries are known as a true antioxidant powerhouse. Researchers at Tufts University found that blueberries were the strongest antioxidant out of 60 fruits and vegetables studied. Blueberries are packed with an antioxidant called anthocyanin, a pigment responsible for the blue color of blueberries.

The presence of anthocyanin helps neutralize free radicals, which can fight off and protect against disease and aging of the body. Moreover, a recent study found that blueberries deliver 38% more of



free radical fighters than those found in red wine, which is another known powerful antioxidant. Blueberries also may help your brain function better. According to an animal study, researchers found that blueberries help protect the brain from oxidative stress and could diminish the effects of Alzheimer's disease or dementia. In addition, researchers found that a diet rich in blueberries can help enhance the learning capacity and motor skills of aging animals.

## Kiwi Fruit

Kiwi fruit is an extremely tasty fruit with a range of health benefits. Kiwi has been shown to contain an antimutagenic component, helping to prevent the mutations of genes that may initiate the cancer process. Furthermore, kiwi has been linked in reducing depression because it contains inositol. According to studies, people who are depressed may have lower than normal levels of inositol in their spinal fluid. Also, inositol partakes in the action of serotonin, a neurotransmitter known to be a factor in depression. In addition to reducing depression, the inositol in kiwi may help reduce the effects of diabetes. Moreover, Kiwi fruit helps with the respiratory tract, particularly with children. According to a study in Italy, children (aged 6-7 years old) that were fed 5-7 portions a week of citrus and Kiwi fruits had a 44% less chance of wheezing compared to children eating less than once a week. According to the study, shortness of breath was reduced by 32%, nighttime cough by 27%, severe wheeze by 41%, chronic cough by 25% and runny nose by 28%. These results were not only due to the large vitamin C and potassium content in kiwi, but to largely unknown substances in kiwi that produce a large amount of health benefits ([kiwi-fruit.info](http://kiwi-fruit.info)). Kiwi fruit has a tremendous amount of vitamin C, E and A, which fights against a diverse range of diseases and harmful toxins in the body. Kiwi contains more vitamin C than oranges, as much potassium as bananas, a high fiber content and a large amount of beta-carotene.



## Açaí

Studies have confirmed that açaí (pronounced ah-sigh-ee) is one of the healthiest foods in the world, an elite superfood! Harvested in the rainforests of Brazil, açaí is full of rich antioxidants, amino acids and essential fatty acids. One of the reasons that açaí is so powerful is due to its extremely high concentration of antioxidants. It has approximately 10 times more antioxidants than red grapes and can have up to 30 times more anthocyanins (flavanoids) than in red wine.



In addition, açaí boasts remarkable amounts of healthy fats, dietary fiber, and phytosterols to help promote cardiovascular and digestive health. It also has a perfect essential amino acid complex and valuable trace minerals, which is especially vital to muscle contraction and regeneration. It has a very similar fatty acid content to olive oil, another elite superfood. Furthermore, açaí is rich in monounsaturated oleic acid. Oleic acid helps omega-3 fish oils help keep cell membranes to be more elastic, which, in turn, allows the hormones, neurotransmitters, and insulin receptors to function more effectively. Although açaí may not be available in your local supermarket, try a health food or gourmet store and buy it in unsweetened pulp juice (the easiest way to consume açaí). Açaí is said to taste like a mix between berries and chocolate, which is not too bad of a combination, right?

## Coconuts

Coconuts (through their oil) actually contain a very healthy form of fat called medium-chain triglycerides (MCT). Although MCTs are a form of saturated fat, they do have many unique qualities that are ideal for your body's health. MCTs are absorbed directly by the liver so they burn similarly to carbohydrates, which can provide instant energy to endurance based athletic events. Other fats, such as butter, contain long-chain fatty acids, which are deposited in fat cells and



burn off more slowly. Coconut oil can raise the metabolic rate and therefore help the body to burn fat more effectively. In addition, MCTs help with the body's digestive tract, which helps fight off digestive problems such as irritable bowel syndrome. Lastly, coconut oil contains a fatty acid known as lauric acid, which helps support the immune system because it fights off a large number of bacteria in the body. The England rugby squad and actress Jennifer Aniston swear by coconut oil and you should too! Go coco loco and have 3-4 tablespoons of coconut oil a day.

## Kelp (Seaweed)

Kelp or seaweed is a green marine plant that can be used in a variety of culinary preparations, and is one of the most commonly eaten sea vegetables. Although it may not be the most appetizing food, seaweed may actually be one of the healthiest foods in the world. Seaweed is perhaps one of the most versatile foods in terms of vitamins and minerals, possessing nearly every vitamin and mineral you can get. There are two essential elements that make kelp so beneficial: iodine and alkali. Remember, when your mom used to put iodine on your cuts when you were a kid, which burned so bad you almost wanted to cry? Nevertheless, didn't that



iodine heal your cut pretty quick? Well, kelp possesses a large amount of natural iodine that naturally heals your cuts and overall body. In addition, iodine deficiency can actually reduce your metabolic rate considerably. Seaweed also possesses alkali, which plays an important role in our diet and body chemistry. The human body must maintain a proper pH balance in order to function properly.

When we become ill, our bodies have too much acid and not enough alkali, which can cause ailments such as acid indigestion. Consuming alkali can keep our body's pH level in balance. In addition, seaweed possesses one of the best sources of vitamin K, which helps with the body's blood clotting abilities (and thus preventing against excessive bleeding) and lowering the chances of osteoporosis. It also possesses exceptional amounts of folate, magnesium, calcium and many vitamins and minerals. You could sprinkle some kelp flakes on your meal as a substitute for salt or use kelp for sushi; there are many ways so be sure to look up recipes to incorporate it into your diet. *Note:* Research has

confirmed that kelp can have traces of heavy metal that can contribute to toxicity. Please have seaweed in moderation (just like tuna), and try to go for certified organic sea vegetables as they have extremely little to no levels of toxicity.

## Bell Peppers

Bell peppers are a tasty vegetable that has tremendous benefits. Peppers are excellent sources of vitamin C and vitamin A. As a result, bell peppers protect your body against free radicals, which harm the body's cells. Free radicals can contribute to a wide range of problems such as a weaker immune system, higher cholesterol and joint pain.

With these free radical destroyers, bell peppers may help fight against these problems. In addition, bell peppers contain a high amount of vitamin B6 and folic acid, which help reduce the risk of cardiovascular disease. Also, red peppers are one of the few foods that contain lycopene, which help reduce the risk of many types of cancers. What may prove to be most interesting is that bell peppers can actually help the lungs of a smoker. Bell peppers are high in vitamin A and a Kansas State University study has found that vitamin A can help reduce emphysema and better lung health.



## Figs

Figs have the highest overall mineral content among all common fruits. They are an excellent source of potassium, which helps to control blood pressure. In addition, they are high in calcium, which maintains the strength and density of bones, preventing osteoporosis. Figs have higher amounts of fiber than any other dried or fresh fruit, giving a perfect amount of insoluble and soluble fiber. Insoluble fiber helps promote regular bowel movement and prevents constipation. Soluble fiber helps lower blood cholesterol and glucose levels. In addition, a diet rich in fiber may help manage



weight and such fiber in figs make it a mild laxative. In addition, figs are a great source of antioxidants and provide Omega-3 and Omega-6 fatty acids, which may help reduce coronary heart disease. Figs are naturally sweet and are thus perfect to replace sweeteners or fats in recipes or are great for immediately after a weight-lifting session to restore glycogen levels quickly. Have a serving a day.

## Broccoli

Broccoli is rich in Vitamin A, Vitamin C, calcium, fiber and other nutrients. Broccoli is an important source for calcium for those who don't consume dairy products. Half of broccoli's fiber is insoluble and half is soluble, which gives your body an equal balance of both types of fiber. Broccoli also lowers the risk of various forms of cancer.

Cruciferous vegetables like broccoli have been shown to increase testosterone production, which will increase muscle mass and decrease body fat levels.



## Spinach

Spinach is extremely rich in Vitamin A, which protects and maintains the health of your eyes. It is also high in nutrients such as Vitamin K (helps blood clot and bone health), Vitamin A (reduces free radicals in the body), Vitamin C (increase in antioxidants) and helps with antiaging, which will in turn make you look younger.

Spinach also does other wonders for your bodies including preventing various forms of cancer, heart disease and other health problems. Researchers have found at least 13 different flavonoid compounds in spinach, which serve as antioxidants and anti-cancer agents. In addition, researchers have found that spinach improves the learning capacity and motor skills in the brain. Spinach is also rich in lutein, which helps prevent cataracts and age-related macular degeneration, the leading cause of preventable blindness in the elderly. The health benefits of spinach keep going and going and it is one of the healthiest foods you could eat. It is no wonder why Popeye relies on his spinach!



## Tomatoes

Tomatoes are one of the only dietary sources of the anti-oxidant lycopene. Lycopene is a pigment that gives vegetables and fruits their red color. Lycopene is very high in antioxidants. Studies show that a food high in lycopene, primarily tomatoes, is associated with a lower risk of prostate cancer and cardiovascular disease. A Harvard University study found that eating 10 or more servings a week of tomato products can lower the chance for prostate cancer by as much as 34 percent.



## Grapefruit

Grapefruit is a rich source of vitamin C, a vitamin that strengthens the immune system. The antioxidant properties of vitamin C help protect cells and their DNA from damage and mutation. In addition, vitamin C may be effective against the common cold. Furthermore, grapefruits have lycopene, which is responsible for the bright color of the grapefruit.



Lycopene is a powerful antioxidant, which may help to neutralize harmful free radicals, which can cause cancer, heart disease, macular degeneration and other age-related illnesses. Diets rich in lycopene may also be beneficial for the heart. According to the latest Harvard study of more than 28,000 women, those with the highest blood lycopene levels were about half as likely to develop heart disease over five years as women with the lowest levels. Furthermore, grapefruit (especially, red grapefruit) may improve cholesterol. Grapefruit contains pectin, a form of soluble fiber, which helps lower blood cholesterol and helps stabilize glucose levels. According to the Journal of Agricultural and Food Chemistry, both white and red grapefruit can reduce blood levels of LDL ("bad") cholesterol and red grapefruit lowers triglycerides. Grapefruit juice also boosts liver enzymes that clear out various carcinogens and eliminates toxic compounds in the body.

Black Tea, coffee, and green tea also do wonders for your body's physique. Consuming these drinks throughout the day and especially before exercise will help you tremendously. The caffeine in these drinks will provide you with that extra mental boost and will translate into a physical boost if you consume them before you exercise (that's when you'll probably need the energy the most). Not only will these drinks increase your metabolic rate, but will also increase your glycogen levels that you can store in the liver, which will in turn, help burn body fat. Read the benefits of green tea and coffee below in addition to another superfood that the Mediterranean's preach that will increase muscle mass, decrease inflammation, and decrease body fat levels.

### Green Tea

Since ancient times, the Chinese drank green tea to promote general health. Now, more and more research is confirming the immense benefits of green tea. The secret ingredient of green tea is in its rich amount of polyphenols, especially epigallocatechin gallate. EGCG, for short, is a powerful antioxidant and research has shown that it may help inhibit and kill cancer cells and can lower LDL cholesterol levels. In addition, EGCG can prevent the abnormal formation of blood clots, something really important considering the formation of abnormal blood clots (thrombosis) is the leading cause of heart attacks and stroke. Furthermore, some studies suggest that drinking green tea can increase metabolism and help burn more fat. Also, research has shown that regularly drinking green tea may help prevent tooth decay by killing the bacteria, which causes dental plaque. Lastly, green tea has a good source of caffeine (about 1/3 of that in a cup of coffee which can be good if you are caffeine-sensitive), which can stimulate the central nervous system, resulting in increased alertness and mood elevation along with the various other benefits that caffeine provides.



## Coffee

What's breakfast without nature's ultimate pick-me-up. Many people have a negative connotation regarding coffee, however, it is a natural phenomenon that is so beneficial to you in so many ways. Coffee has more antioxidants than any natural consumption product on the market. Its health benefits keep getting clearer to us each year after hundreds



of studies have been performed. A study in the Journal of Agriculture and Food Chemistry in 2001 found that coffee has significantly more total antioxidant activity than either cocoa, green tea, black tea, or herbal tea. Further studies from Canadian Scientists have shown that drinking four 6 oz. cups of coffee reduces your risk of cancer and heart disease by a whopping 50%. If that's not compelling to grab a few cups throughout the day, I don't know what is. Not only that, but coffee induces the production of dopamine and glutamate in the cell of the nucleus accumbens. This is responsible for the alertness and that feel good sentiment after a cup o' Joe. The rewarding and motor-activating properties of this psychostimulant increase your work capacity and production throughout the day. There is something to be said about that mental fix you get from this natural bean. Moreover, the caffeine in coffee helps store glycogen, which in turn allows for more carbohydrates to be burned throughout the day and during exercise. Furthermore, coffee may lower insulin levels, which makes it less likely for fat to be stored from a dreaded insulin spike. Start every day with a big cup o' Joe!

## Olive Oil

Olive oil is heavily used in the Mediterranean Diet and contributes to the healthy lifestyle that the Europeans lead. Many European and Mediterranean countries consume high amounts of olive oil daily, which may be a prime reason why these countries have lower levels of heart disease among people. Olive oil is one of the best sources of healthy, monounsaturated fats. Monounsaturated fats are considered to be one of the healthiest fats, keeping your heart

healthy. Monounsaturated fats are believed to help lower cholesterol and heart disease while also being a potent antioxidant. According to the FDA, consuming 2 tablespoons of olive oil a day may reduce your risk of heart disease and this healthy fat contributes to muscle growth and the torching of fat. That's right! You can actually get lean by consuming certain fats like the ones in olive oil because of its tremendous health benefits. It is one of the healthiest things you could consume and you could put it on nearly anything (bread, pasta, etc.). Studies have confirmed over and over again that one can consume as much olive oil as desired without gaining an ounce of fat. It is almost like a paradox in which your body treats this particular fat for beneficial purposes. Try to get the "extra-virgin" cold-pressed kind because they are the most pure, have more antioxidants, and may even taste better.



Often people use supplements as a crutch, rather than as the word defines it as a supplement, which should be used in conjunction with hard work, determination, diligence, and perseverance. While a lot of supplements are very beneficial, some can be very dangerous and it is important for you be careful of

what you put into your body. A lot of people think that the supplement industry is heavily regulated by a regulatory agency, however, it is not. Under the Dietary Supplement Health and Education Act (DSHEA), most supplements are scrutinized less by the FDA than a lot of over-the counter medicines. This law restricts the FDA's authority over supplements. So as long as companies are careful in what they say, it will usually reach the market. As long as they do not claim that their products treat, prevent, or cure disease, the supplement industry is usually within their bounds of what products they can put out on the open market. So, in essence, all it could take from some rogue companies is some craftiness from their legal team and marketers to write the correct words on the package and when promoting the product, regardless of the qualifications in the actual substance itself.

So, why hasn't there been more pressure from the FDA? Well, the dietary supplement industry contributes nearly \$61 billion to the economy through direct and ripple (indirect and induced) effects. Additionally, the total tax contribution of the industry is at \$10.1 billion and this industry is responsible for nearly half a million jobs across 100 different industries. For every dollar spent by this industry, the economic contribution to the US in terms of GDP is \$2.71.



Clearly, it can be suggested that the government cannot allow this industry to dissipate, so to speak, and therefore, the industry and its players have tremendous political pull. Consequently, the aforementioned law's passage was secured in part through heavy lobbying from the players in the industry.

Therefore, the law doesn't protect consumers like it does with heavily scrutinized prescription medications. The FDA forces drug manufacturers to spend millions on research and development of those drugs including clinical tests to show that a product shows actual causation before the FDA will allow it on the market, whereas no such requirement for research and development is bestowed upon the supplement industry . Obviously, there is a good underlying reason for this (showing causation between products and superficial results of increased muscle mass and fat loss are going to be inherently difficult), however, it allows a loophole in that the supplement industry can put a product out there that provides very little benefit at a high price. Thus, supplement manufacturers can get away with very little testing and can put products out on the market that provide minimal results so long as the claims are in compliance with the FDA's prescription. This is not to say that all manufacturers follow this procedure. Many supplement companies and manufacturers do their appropriate due diligence with the proper research and testing to show that is not only safe, but that the results that are claimed are founded. It is up to you to do your due diligence in selecting the appropriate supplements and the appropriate companies who manufacture their products.

To further prove this point, Greg Hull, a world renowned nutritionist and fitness guru, was recently hospitalized after he was feeling deathly ill. The doctors linked his medical dilemma to his own supplement brand that he was selling due to the harmful effects of the protein powder he was consuming. The brand of protein that he would consume on a daily basis ended up having 1,000,000 IU's

(International Units) of Vitamin D, when the label said it only contained 1,000 IU's. The doctors told him that if he continued use of this product, he would have died, because the body can actually overdose on the fat-soluble Vitamin D and cannot rid of it as it can water-soluble vitamins like A and C.

While this is a rare exception, you must take heed to this advice. You must be very careful as to which supplements you consume because there could be the potential of manipulative claims. Supplements are a wonderful thing and most are beneficial for you. Nevertheless, don't go buying everything in sight without understanding its effects and possible complications.

You should definitely take a basic whey protein, certain vitamins, and fish oils though. However, it is recommended that you take a protein powder that is regulated by a third party agency to ensure that there are no banned substances in the product and that the ingredients in the product are exactly as what is dictated on the label. Look for “NSF” on the back of the label and/or “Manufactured at a GMP registered facility”, and/or “FDA Approved” to ensure you know what exactly you are putting into your body.



Just be wary of certain supplements that offer tremendous muscle gains and incredible fat loss phenomena before you buy them because they can have possible side effects and long-term health effects.

Vitamins certainly do play an important role and hopefully you choose a research-backed multivitamin.

*Here is an overlook on the importance of vitamins:*

Vitamins are essential to promote a healthy living. When you deprive your body of them, you may experience a wide range of health effects. Natural vitamins are only found in plants and animals, but you can still be supplied vitamins through the form of dietary supplements. However you choose to take them, you need your vitamins for your body to function properly.

Remember, each type of vitamin can potentially have dozens upon dozens of health benefits. Each vitamin also can have many deficiency symptoms. I have decided to tackle only its most dominating and important ones that make it stand out among the others.

Also, I recommended foods extremely high in the respective vitamin that are both tasty and relatively easy to find in a local supermarket.

## Vitamin A Health Benefits

**Vision support:** The human retina contains four kinds of photopigments that store Vitamin A compounds. One of these pigments, known as rhodopsin, is responsible for the eye to detect small amounts of light. This is important because you use this light when you are in low-light conditions and through night vision. Vitamin A guides in the production of rhodopsin and helps improve your vision, especially in low-light conditions or at night.

**Immune function support:** Vitamin A is known to improve the function of white blood cells and fight against disease and viruses. Vitamin A also keeps the tissues of the lungs, trachea, skin, oral cavity, and gastrointestinal tract healthy. These tissues often serve as the first defense mechanism for the immune system, blockading pathogens from entering.

## Vitamin A Deficiency Symptoms

*Vitamin A deficiency primarily affects (but not limited to) the health of the skin, hair, eyes, and immune system.*

The most obvious sign of vitamin A deficiency is known as “hyperkeratosis, a goose bump-like appearance of the skin caused by excessive production of keratin (a protein found in skin) that blocks hair follicles.” In the beginning stages, hyperkeratosis is found on the forearms and thighs, where the skin can become dry, scaly, and rough. In the later stages, it can affect the whole body, causing hair loss.

Deficiency in vitamin A can lead to a higher prevalence of night blindness and problems with the immune system, such as inability to fight off pathogens. Lack of vitamin A can be responsible for an increased susceptibility to viral infections, such as measles, chicken pox and pneumonia.

*Vitamin A deficiency is quite common in developing nations.*

## The Best Foods for Vitamin A

*Carrots, Spinach, Romaine Lettuce, Sweet Potato (with skin), Cantaloupe*

## Vitamin B12 Health Benefits

**The formation of red blood cells:** The most recognized function of B12 is through its role in the development of red blood cells. As red blood cells grow

and mature, they require information through DNA molecules. Without B<sub>12</sub>, the synthesis of DNA does not function properly, and so does the information needed for red blood cell formation. The cells begin to experience a condition called pernicious anemia, which is when the cells become oversized and poorly shaped, and function unproductively.

**Developing nerve cells:** Research has found that the myelin sheath, a coating that encloses and protects the nerve cells, begins to form less effectively when there is a deficient amount of vitamin B<sub>12</sub>. In addition, B<sub>12</sub> has been shown to reduce pain and inflammation in many nervous systems disorders.

**Proper cycling of nutrients:** Protein needs B<sub>12</sub> for proper transportation through the body. Amino acids, the building blocks of protein, fail to be used without enough B<sub>12</sub>. In addition, research has found that a deficient amount of B<sub>12</sub> may affect the proper cycling of carbohydrates and fats throughout the body.

### Vitamin B<sub>12</sub> Deficiency Symptoms

One of the more common symptoms of B<sub>12</sub> deficiency is pernicious anemia. You get anemia when your body doesn't get enough red blood cells. You need red blood cells for oxygen so depriving yourself of red blood cells (less oxygen) will make you more tired.

In addition, deficient amounts of B<sub>12</sub> can cause your nervous system to break down through inflammation of the nerves (neuritis) and dementia (mental deterioration).

Elderly people are at the highest risk for vitamin B<sub>12</sub> deficiency, although it can be common in young women.

### The Best Foods for Vitamin B<sub>12</sub>

*Shrimp, Scallops, Salmon, Beef Tenderloin, Lamb Loin, Yogurt, Eggs.*

### Vitamin B6 Health Benefits

**Molecule production:** Amino acids, the building blocks of protein, need vitamin B6 for their production. In addition, B6 is needed for the development of nucleic acids, which are used for the creation of DNA. Since amino acids and nucleic acids are an integral part in creating new cells, B6 is crucial for the synthesis of

virtually all new cells in the body.

**Processing of carbohydrate:** You need an adequate amount of vitamin B6 in the body to properly process carbohydrates in the body. This vitamin is exceptionally important in the breakdown of glycogen stored in our muscle cells and in our liver.

**Maintains a healthy nervous system:** B6 helps with the formation of amines, a group of messaging molecules. Amines are needed to transmit messages between nerves, and thus amines function as neurotransmitters.

**Support of sulfur and methyl metabolism:** Vitamin B6 helps the body to synthesize and transmit molecules that contain sulfur for the purpose of maintaining proper hormonal balance and to eliminate toxic substances in the liver. In addition, B6 helps transfer methyl groups from one place to another, as methyl is needed to maintain healthy genes and for cells to transmit messages to each other.

## Vitamin B6 Deficiency Symptoms

Since vitamin B6 is crucial in the formation of new and healthy cells, B6 is especially important for the healthy function of skin tissue to regenerate itself quickly. Skin is the prime example of this. When deficient in vitamin B6, many skin disorders can develop.

In addition, when deficient in B6, problems with the nervous system can arise. Seizures and convulsions can happen when highly deficient. Also, as stated above, B6 creates many new red blood cells. When you are deficient in B6, you have less blood cells, which can result in high fatigue (since you have less oxygen in the body), anemia and malaise.

## The Best Foods for Vitamin B6

*Tuna, Banana, Chicken Breast, Turkey Breast, Salmon*

## Vitamin C Health Benefits

**Strengthens the immune system:** Perhaps the most well known vitamin is vitamin C because of its immense benefits for maintaining a healthy immune

system. More people take vitamin C than most other vitamins and nutrients for this reason. The antioxidant properties of vitamin C help protect cells and their DNA from damage and mutation. Vitamin C has been known to help to defend and prevent sickness, cancer and many forms of disease through its strong antioxidant capabilities. In addition, many scientific studies verify that vitamin C can help protect against the common cold, as it acts as a natural antihistamine.

**Speeds up the healing process:** Also, vitamin C can help with the healing process, making nearly anything (broken bones, cuts, burns and surgical wounds) heal faster and better. It also helps prevent against ultra violet rays when applied to the skin.

### Vitamin C Deficiency Symptoms

A very extreme deficiency symptom of vitamin C is known as scurvy, which is characterized by swollen and bleeding gums and skin discoloration due to ruptured blood vessels.

More widespread deficiency symptoms of vitamin C can range from a slower healing process and higher frequency of developing colds and other infections.

### The Best Foods for Vitamin C

*Oranges, Strawberries, Cantaloupe, Broccoli, Bell Peppers*

### Vitamin D Health Benefits

**Maintains calcium balance:** The main purpose of vitamin D is to maintain the body's calcium balance by the absorption of calcium, which helps bones grow and maintain strength.

**Promote immune system function:** Vitamin D helps promote more white blood cells and anti-tumor processes. In addition, vitamin D has been shown to help fight off colds and other infections.

### Vitamin D Deficiency Symptoms

Since vitamin D is primarily responsible for calcium absorption, the deficiency symptoms mainly deal with weaker bones and higher chances for fractures and breaks.

More subtle deficiency symptoms have to do with a weaker immune system, but deficiency in vitamin C is primarily responsible for this.

## The Best Foods for Vitamin D

*Salmon, Shrimp, Milk, Eggs*

### Vitamin E Health Benefits

**Prevention of oxidative stress:** Although oxygen is needed for humans to live, it can also cause molecules inside the body to be overly reactive, which can damage the cell-structures around them. This is known as oxidative stress. Vitamin E helps prevent oxygen molecules from becoming too reactive.

**Maintains healthy skin:** Vitamin E protects the skin against ultraviolet radiation.

### Vitamin E Deficiency Symptoms

Research has not exactly pinpointed a concrete deficiency symptom of vitamin E, but many scientists believe it has to do with digestive system problems where nutrients are poorly absorbed from the digestive tract.

In addition, research has found that deficiency in vitamin E might contribute to peripheral neuropathy, in which there are problems with the nervous system. A result of this is pain, tingling and loss of sensation in the arms, hands, legs and feet due to a lack of vitamin E.

## The Best Foods for Vitamin E

*Sunflower Seeds, Almonds, Spinach, Olives, Tomatoes, Blueberries, Broccoli*

### Vitamin K Health Benefits

**Blood clotting:** Blood clotting is essential to prevent us from bleeding to death when we harm our bodies. In addition, blood clotting conceals the area of an infection or injury and begins the healing process. Vitamin K is needed for the blood to clot since it initiates the process of healing by slowing and stopping the bleeding. For this reason, many people are given vitamin K before surgery to prevent excessive bleeding.

**Lower risk of developing osteoporosis:** According to research, over 50% of Americans over the age of 50 have osteoporosis, which has emerged as one of the bigger health problems in the country. Vitamin K helps the body to absorb the

mineral calcium, helping to fight against osteoporosis and the loss of bone density.

## Vitamin K Deficiency Symptoms

Vitamin K deficiency is rather rare but it can prevent blood clots, which can result in longer bleeding. Severe deficiency can lead to fatal anemia.

In addition, vitamin K deficiency can lead to a higher chance for developing bone problems since calcium is not as absorbed in the body. This can result in a higher chance for osteoporosis. Consuming both vitamin D and vitamin K foods or supplements together can have an even better effect of fighting against osteoporosis, as both work to fight against the disease.

## The Best Foods for Vitamin K

*Spinach, Romaine lettuce, Cabbage, Kelp (seaweed), Celery*

EAT FOR FUEL NOT FOR TASTE

18

Most people love food. They enjoy eating out at restaurants, going to their favorite pizzeria, eating ice cream late at night, and scarfing down a bowl of popcorn at the movies. They mainly do this to change their emotional state. It feels great, and it is a very satisfying experience, however, that great feeling lasts only a very brief time. It's the reason why you are taking these efforts now to go to the gym and eat healthy; because you are in search of an even more gratifying and better feeling: To look and feel your best. Your goal is to achieve a physique you've always dreamed of, and consequently, you need to eat for fuel. For that reason, you need to make sure that everything you put into your body from here on out is in accordance with your goals, not your taste buds.



This is not to say that eating healthy has to completely sacrifice taste nor does it mean you can't enjoy cheat meals. However, you will have to earn them opposed to eating them without conscious awareness.

Healthy dishes can be wonderful tasting. It's just the fact that a lot of the time we try to justify situations and convince ourselves that we've been better than we actually are. We say to ourselves "Oh I was so good all day...this one cookie won't hurt" or "I've been eating the same healthy stuff for four days straight so I can afford this piece of chocolate cake". WRONG! It's not that the individual cookie does damage, it's the momentum it gives you that is why you cannot afford to eat a slice of chocolate cake. What happens is that these mishaps turn into a snowball effect, where you further justify other things. That one extra cookie makes you grab an extra potato chip that you shouldn't have or a slice of pizza for lunch instead of a turkey sandwich on whole wheat. It's this kind of rationalizing behavior that your mind does that will sabotage your efforts because you won't notice the damaging effects through the naked eye. If you took tiny measurements you would see the difference though and over time, you will eventually notice it in the mirror.

So, in essence, your focus needs to shift from taste to the target of what you want to achieve and what result the meal is going to produce for your body. Get into the right mindset and get into the habit of eating as a source of fuel.

Legendary fitness celebrity Jack LaLanne lived by the notion that "if it tastes good, spit it out". While this is a little overboard and an extreme way to live (considering we can make plenty of healthy dishes that taste wonderful), there is something to be said about his way of life. There's obviously an underlying reason why he lived to 96 years old and was still able to tug boats through a rope in his mouth across the San Francisco Bay to Alcatraz while shackled at the hands and legs.

When you are sleeping, your body goes into starvation mode since you are not eating anything. As a result, your body triggers a natural defense mechanism that decreases the amount of fuel it burns in order to conserve energy. Your body is then forced to use up its glycogen stores (carbohydrate stores), which are found in the muscles and liver.

Therefore, when you wake up, your body is tired and less able to function. That's why you get the groggy feeling. Breakfast filled with the proper nutrients replenishes those depleted glycogen levels and picks you up, waking you out of that slumber.

So why is breakfast so important? Why is it the most important meal of the day? The answer is simple.

You probably get between 6-8 hours of sleep a night. That's a long time to deprive yourself of food. Your body consistently needs nutrients to build or maintain muscle mass, and most importantly, to keep your body functioning properly. That's why when you skip breakfast, you usually get those hunger pangs. Your body is telling you that it needs nutrients, because you've been starving it for hours on end. Hence the term, "break the fast".

Therefore, you need to eat within 30 minutes of waking up to give you the physical energy your body needs throughout the day as well as the kick start to your metabolism that it provides, which will be discussed shortly. Besides giving you physical energy, breakfast has been proven to improve memory and cognitive functions. Eating breakfast improves mental performance by improving your ability to focus, understand, and perform tasks.

Eat a healthful and plentiful breakfast with dishes like eggs, fruit, and oatmeal. Don't forget your morning Joe either, as we discussed the wonderful benefits of coffee earlier (psychostimulant, antioxidants, and fat-burning capabilities). The bulk of your carbs should come during this meal, as will be discussed in the next topic entitled "Proper Carbohydrate Intake".



Furthermore, breakfast has been shown to increase your metabolism by 20-30% for the rest of the day. Studies suggest that those who eat breakfast within 30 minutes of waking up are leaner than those who don't.

This should be the biggest meal of the day to break the fast from sleeping and give your organs a jumpstart to perform optimally. Otherwise, they will secrete all kinds of hormones as a preservation mechanism to give you energy which aren't optimal for fat burning.

What people don't realize is that breakfast may actually promote weight loss. When you skip breakfast you are also more likely to be hungry throughout the day. As a result, you may be more likely to binge eat. Studies actually show that when you skip breakfast, you tend to eat more calories throughout the day than if you hadn't skipped it (you misjudge, and instead, overcompensate).

So if that's not a reason to listen to your mother's old adage, then I don't know what is.

## PROPER CARBOHYDRATE INTAKE

20



Carbohydrates, when not burned, get stored as either glycogen in the liver and muscles (to be used as energy later on in a simple converted form) or as body fat (mainly around your midsection). Obviously, we want to avoid the latter at all costs, but when glycogen stores become full, the excess carbohydrates get stored as body fat to be used at another time when you need them.

*“So how do I know when it’s going to be stored as body fat?”*

Well, there are two times during the day in which your body is generally inefficient at storing carbohydrates as body fat due to the depleted levels of glycogen: in the morning and right after your workout. Therefore, these are the opportune times to have the bulk of your carbohydrates during the day (it shouldn’t be of a surprise that these are the same times of the day that the insulin spike contributes to muscle growth).

Now we know that breakfast should constitute the bulk of your carbs and each successive meal after that should contain less in calories from carbs as the previous one. After breakfast, decrease your carb intake gradually throughout the day and keep total carb intake throughout the day generally low (when looking to lose weight keep it at 100-150 g carbs or 600-800 calories for a 180 lb. male). This is called a reverse pyramid scheme, where you start out high and end low.

Right around your workout is another time when you need to intake a lot of carbs. Before your workout it is generally a good idea to have a good amount of carbs, but right after your workout is when it is most important.

*So, a day’s worth of carbs should look something like this:*

Meal 1: 50 g carbs

Meal 2: 40 g carbs

Meal 3: 30 g carbs

Meal 4: 20 g carbs

Meal 5: 15 g carbs

Meal 6: 0 g carbs

Meal 7: 0 g carbs



Cheat meals are very important to implement into your diet in order to boost your morale and kick fat burning into a higher gear, but can only occur sporadically and at opportune times. These rare treats do happen to be necessary though, and are important both from a psychological standpoint and a physical viewpoint.

Psychologically, it is essential. This is the number one reason why diets fail. Diets are generally too restrictive and most people follow them for just a short period of time, and then develop these incredibly intense cravings. Usually, these cravings are for calorie dense foods because you've literally starved your body and your body now wants to inherently compensate for its lack of nutrition. Generally, these cravings are not for extra oatmeal or grilled chicken, but for calorie-dense junk food like cake, pizza, pasta, etc. to the point where they have no choice mentally but to gorge on the wrong types of foods and large amounts of them. Ultimately, you are left off in a worse position than you started in. This is where the cheat meal comes into play. You need to provide yourself with one before you get these intense cravings (do take note though, that you won't have as intense of cravings with this plan, because you won't be starving yourself, but rather restricting your calories by just enough to promote fat loss), because it is a lot better to take one step back with a cheat meal here and there when you need it, opposed to five steps back when you can't control yourself and go all out.

Not only from a psychological standpoint, but a cheat meal does play an important role in having physical benefits too. One approach to a cheat meal is



to do something called carb cycling. This is where you incorporate higher carb days, not allowing your body to adapt to the low carb diet you have it on throughout the week. Your body is all too good at adapting and acclimating to what you present to it and this form of trickery in cycling carbs will keep your body guessing. It won't know whether you are withholding it from carbs or feeding it a tremendous amount of food, and therefore, it will never get the opportunity to realize that you are in a restrictive-calorie-phase where it needs to slow down its metabolism as a result. Instead, it will remain at its revved up metabolism, because it will think you are feeding it normal amounts of carbohydrates throughout the week. We know that excess carbs result in increased body fat, but when done once in a while after keeping your carbs low throughout the week, it will not result in body fat gain, but will aid in muscle growth and eventually help burn fat because your body will remain at the high basal metabolic rate that it was at previously. Some people might say "why can't I just stay on a low carb diet forever and lose a ton of weight that way rather than sabotaging my body on a high carb day"? The reason is because if you stay on a low carb diet long enough, your metabolism will drop because it will realize you are starving it from this essential macronutrient it needs to use as energy in order to function optimally. Therefore, if you are trying to burn fat and find yourself lowering your carbs for an extended period of time, you need to trick your body with a high carb day.

Every 4-5 days, you should increase your carb intake throughout the day to around double to triple of what it is normally. So, if it was originally at around 150 g carbs in your low-carb phase, consume 300-450 g of carbs. Eat the same kinds of foods, but just eat more of them. So eat twice the amount of oatmeal you ordinarily eat in the morning and so forth. When you eat low carb throughout the week, your body uses up all of its glycogen and resorts to fat burning. However, if you remain in this low-carb state for too long, your body is all too good at adapting. So its fat burning efforts will diminish as it gets used to the low-carb diet and won't resort to the fat on your love handles for energy. Nevertheless, when you switch it up and provide your body with a lot of macronutrients like carbs, your body senses that it is out of the low-carb diet stage and begins to rev up its metabolism again in an attempt to burn off more fat.

You should be wary of what a high carb day is though. By a cheat meal you can't gorge on fast food all day long. A cheat meal in the carb cycling context means eating more of healthy, nutritious foods that you would normally incorporate into your normal routine. That means things like oatmeal, whole grains, potatoes, brown rice, fruits, vegetables, etc. So eat double the oatmeal you normally have at one sitting, or eat whole wheat pasta instead of the apple as your snack. Don't stuff yourself on sugared candy and think that's going to help your efforts.

The other type of cheat meal is for the psychological factor, which is to have one meal where you eat whatever you want. While it's important to stay true to your goals, you are human after all and not a robot. Therefore, it is very difficult to stay mentally tough for a long period of time with this all-out blitz of a lifestyle change. If you go on too long with depriving yourself from life's pleasures, you're going to go mentally crazy and you will eventually sabotage your efforts in a different way. Therefore, you need to have a meal here and there in which you have whatever you want. With MP45, no food is off limits. However, you must be aware that the timing of when you can have that meal is very important. You obviously know that 20 cheat meals over the course of 6 weeks is too many and 0 cheat meals is not enough; you need a number in between those two. Also, you know that if you eat pizza on Thursday, you cannot have cake on Friday, as your body will not have ample time to burn off both.



Therefore, how often should you have a cheat meal in which you can eat whatever you want? You should incorporate this type of cheat meal once every 20 meals. So if you have 7 meals a day, then every few days you should have one meal where you can eat whatever you want.



The MP45 program is slightly different than the MP45X program and is designed to increase your discipline. MP45X is more of an easy-to-follow maintenance program for the rest of your life. MP45X has more frequent cheat meals, but we must build the foundation of your mind to be super strong moving forward when the skyscraper is going to get built.

Cheat meals are going to increase your morale and help you eat healthier during the other days, because it will provide you with incentive to get through the week when you have something to look forward to. Cheat meals, when used and not abused, are very beneficial.

If you want to maximize the benefit from your cheat meal, then a cheat meal that you have shouldn't be fried or be of a liquid consistency like soda (liquids are easily digestible and require minimal effort from your body to break down the nutrients); you should have a protein source in them to slow down the absorption.

Implement cheating properly and it will work to your advantage. We want to train your body to be a machine that burns fat and builds muscle like clockwork. Furthermore, the earlier in your day the cheat meal is consumed, the better, because your body will have more time throughout the day to burn that cheat meal off and use it as energy before it gets converted into fat. Nighttime, especially right before bed, is the absolute worse time of day to have your cheat meal.

Also, to maximize benefit from your cheat meals, you should have them on days that you exercise because the extra carbohydrates and calories will be used towards insulin spiking and, by extension, muscle growth as previously mentioned.



Furthermore, make sure that your eat-whatever-you-want-cheat-meal is never on a day that you don't exercise and make sure that it's never on the day directly before or after your high carb day.



One of the most important times of what you put into your body is right around your workout, as we've preached to you over and over throughout this nutritional plan. Pre-and-post workout nutrition is so essential that if you don't follow this properly, your workouts might just go to waste. Your body requires certain nutritional compounds before and after you workout with weights and whenever you perform cardiovascular exercise. Furthermore, the type of nutrition you consume is very important and the requirements to build muscle, burn fat, and stay lean are different for when you weightlift and when you perform cardio as are discussed here:



### Pre-Workout Resistance Training (Weight Lifting) Meal

Any time before you workout with weights, you need to supply your body with the right nutrients in order to prime your muscles for growth and set your body up for fat burning. Studies consistently show that exercisers who eat before they workout have more energy for their workouts and can in turn train harder. Furthermore, they stand to burn much more fat in the process than if they haven't had a proper meal beforehand as a result of the increased intensity in their workout. This will equate to more calories burned, and also because of the proper physiological and hormonal environment you place your body in after priming it appropriately. Before carbohydrates are tucked away in your muscles and liver as glycogen, it enters your bloodstream in the form of glucose, a readily available source of energy your body can use in replacement of your glycogen. Therefore, your body can rely on this glucose for fuel and then spare the glycogen. When the glucose is up, it will resort to the glycogen. So in essence, you really have two sources of fuel as opposed to just one, so you can last a lot longer and train a lot harder with more vigorous energy.

Also, you won't train at the expense of your muscles if you eat beforehand by consuming some carbohydrates. If you don't eat before your workout, then your body has to derive the energy from somewhere. First, it goes after your immediate carbohydrate sources (glucose) as previously discussed. Then it goes after your glycogen stores. After your glycogen is depleted, your body will resort to fat cells, but also precious muscle in the process. Your body will eat away at the glycogen stores very quickly during an intense weight training session if you don't have any glucose in your system beforehand. You want to avoid your muscle from being eaten at all costs because the more muscle you have, the more fat you burn. We want to focus on the fat burning; and eating the proper carbohydrates before exercise helps put this fat burning process into motion. Furthermore, when you consume a fast-digesting protein source beforehand you prevent the breakdown of muscle once the glycogen levels are depleted and the body then resorts to fat and muscle as its main energy sources. Therefore, your muscles are spared and your fat cells are being torched.

### **“So what should I eat before I lift?”**

Obviously, just because you shouldn't weight train on an empty stomach, it doesn't mean that you should eat a three-course meal 10 minutes before hitting the gym. As a general rule, the closer you get to your workout start time, the fewer calories you should eat. Also, the types of nutrients should change as you get closer to your workout. It takes much longer to digest fat than protein and carbs. Therefore, it's important to pyramid down your fat content as you get closer to exercise. As a general rule, you don't want any blood rushing to your stomach to digest food while you are trying to get blood to pump into your muscles while exercising. Ultimately, if you do otherwise, not only will you be sacrificing digestion, you'll also be sacrificing your workout. Furthermore, this creates excess pressure on your heart to meet its blood flow requirements. Therefore, we need to be cognizant of what we consume heading into our workout.

***General rules of thumb:*** Two and a half to three hours before you workout with weights, you want to have a normal meal with protein, fat, and carbohydrates. Then, 30 minutes to an hour before you workout you want to have a fast digesting protein source like whey protein and easily digesting carbohydrates like fruit. Make sure not to consume any fat with this as it will slow down the

release of natural anabolic growth hormone that will aid in muscle growth and fat loss. If you only have 15 minutes to spare, (i.e-leaving your office and going straight to the gym without time for preparation of a meal), then grab something like a sports drink to provide you with that necessary glucose to get through your workout.

### “How much should I eat?”

Consume around 25 g fast-digesting whey protein around 30 minutes to an hour before your lifting workout with about 30-40 g of fast-digesting healthy carbohydrates (so a handful of some fruit like apricots, prunes, and raisins).

### Post-Workout Resistance Training (Weight Lifting) Meal

The post-workout meal is the most important meal of your day when it comes to muscle growth, recovery, and fat burning. Nevertheless, many people fail to eat the right post-workout meal. One set of people will either starve themselves thinking it will help their efforts and the other set usually downs everything in sight because their hunger is uncontrollable (or because they inaccurately think to themselves that they've earned it).

When you workout, you develop small tears in the muscle fibers and connective tissue. Your muscles will attempt to rebuild and become stronger, adapting to the trauma you put your muscles through in the past workout. However, this cannot take place unless you replenish your body and muscles into growth and recovery with the proper nutrients.

Your post-workout meal needs two extremely important nutrients in order to do this: protein and carbohydrates. Carbohydrates refuel your depleted glycogen levels and protein will halt catabolism and turn your body into an anabolic environment guiding in the rebuilding process. Nevertheless, you have a limited time to maximize the benefits. If you don't consume protein and carbohydrates within 30 minutes after your workout, the gains you can make will be diminished.



Fat plays very little of a role in this initial phase of the recovery process, and thus, you should avoid consuming it within one hour. The reason for this is because fat slows down digestion, which correlates to less protein and carbohydrates being absorbed into the body right away when the body needs it most.

The next part I'm going to tell you about is a trick if your focus is on building muscle. Consume your carbs first and then your protein 20 minutes after.

Remember that insulin spike that we talked about earlier and how it only occurs two times during the day? Well, right after your workout is the most critical time of the day to create that insulin spike in order to deliver those nutrients to your muscles. Protein consumption, while important after a workout, will slow down the digestion. Therefore, you should consume fast-digesting carbohydrates in the form of sugar immediately after your workout. An insulin spike will be created, whereupon nutrients will be delivered to the torn muscles and glycogen levels will be restored. Then, wait 20 minutes to consume your whey protein, whereupon this will halt the breakdown of muscle (since you initially broke down the muscle when you tore its fibers) and these proper nutrients will be delivered to the muscles, but will not compromise that insulin spike that you so desperately need.

### **“How much should I consume of each macronutrient?”**

You should take in around 40-80 grams of fast-digesting carbs (depending upon your goals of leaning or bulking up, respectively). Honey is probably the best form of sugar that you can take in at this juncture given its health benefits to ward off viruses and bacteria and its high glycemic nature to get into your body rapidly when your body is begging for nutrients.



Then, after 20 minutes have expired, take in 30 g whey protein. A lot of people tend to overdo it on the protein and consume upwards of 50g in liquid form. Not only do you waste your money, you compromise your kidneys and liver, as it clearly cannot absorb all of this protein, and ultimately you damage them from all the work they have to do to filter this excess amount.

If you are cutting, take in 40 g of carbohydrates from sweet potatoes or oatmeal along with 25-30 g of protein. This combination will keep you lean, while refueling your muscles with the proper glucose stores to be converted into glycogen, so your muscles can repair properly and come back stronger, bigger, and leaner the next day.

Then, one hour after you complete your protein shake, you are to consume a full healthy meal consisting of a solid lean protein selection, low glycemic-index complex carbohydrates, some healthy fats, and key nutrients.

This meal is very important too. While the carbohydrates and the proteins that you consume directly after your workout do the refueling, they are fast-digesting sources. They are immediately used for energy purposes and to replenish. Therefore, your body is still hungry for more nutrients and that is where this meal comes into play (to make up for lost nutrients). Make sure to stay away from the simple sugar, high glycemic carbs at this point, but don't shy away from saturated fats at this point either. This is because they play a huge role in creating a proper hormonal environment in terms of increasing that friendly hormone testosterone, which will actually build muscle and decrease body fat.



## Pre-Workout Cardio Training Meal

Any time before you perform cardio, you need to supply your body with the right nutrients in order to prime your body for fat burning. There are a lot of misconceptions out there that claim you shouldn't eat anything before you do cardio because you'll burn more fat. As we discussed, studies consistently show that exercisers who eat before they workout have more energy for their workouts and can in turn, train harder while simultaneously burning more fat in the process. Before carbohydrates are tucked away in your muscles and liver as glycogen, it enters your bloodstream in the form of glucose, a readily available source of energy your body can use in replacement of your glycogen. Therefore, your body can rely on this glucose for fuel and you won't train at the expense of your muscles. If you don't eat before your workout, then your body has to derive the energy from somewhere. First, it goes after your immediate carbohydrate sources (glucose) as previously discussed. Then, it goes after your glycogen stores. After your glycogen is depleted, your body will resort to fat cells, but also precious muscle in the process. Your body will eat away at the glycogen stores very quickly during an intense weight training session if you don't have any glucose in your system beforehand. You want to avoid your muscle from being eaten at all costs, because the more muscle you have, the more fat you burn. However, our main purpose of cardio is to burn fat in the process.



**“So how do I burn fat without compromising muscle?”**

As mentioned earlier, when you consume a fast-digesting protein source beforehand, you prevent the breakdown of muscle once the glycogen levels are depleted. Although your body resorts to fat and muscle as its main energy sources, the protein beforehand will help prevent the breakdown of the muscle

and more fat will be burned as a result. Therefore, your muscles are spared and your fat cells are being torched.

### **“So how much should I eat before I do cardio?”**

Also as mentioned before, the closer you get to your workout start time, the fewer calories you should eat. Also, the types of nutrients should change as you get closer to your workout. It takes much longer to digest fat than protein and carbs. Therefore, it’s important to pyramid down your fat content as you get closer to exercise. As a general rule, you don’t want any blood rushing to your stomach to digest food while you are trying to get blood to pump into your muscles while exercising. Ultimately, if you do otherwise, not only will you be sacrificing digestion, you’ll also be sacrificing your workout. Furthermore, this creates excess pressure on your heart to meet its blood flow requirements. As a result, we need to be cognizant of what we consume heading into our workout.

*General rules of thumb:* Two and a half to three hours before you perform cardio, you want to have a normal meal with protein, fat, and carbohydrates. Then, 30 minutes to an hour before your workout you want to have a fast digesting protein source like whey protein and a very small amount of complex carbohydrates like oatmeal. Make sure not to consume any fat with this as it will slow down the release of natural anabolic growth hormone that will aid in muscle growth and fat loss. If you only have 15 minutes to spare, (i.e. - leaving your office and going straight to the gym without time for preparation of a meal), then grab just whey protein to provide you with that necessary prevention of the muscle breakdown to get through your workout without compromising muscle mass.

### **“How much should I eat?”**

Consume around 20g fast-digesting whey protein around 45 minutes before your cardio workout with about 10-15g of slow-digesting carbohydrates (a tiny bowl of oatmeal).

## *Post-Workout Cardio Training Meal*



Our body's requirement when we perform cardio is different than when we tax our muscles with heavy weight lifting. The purpose of cardio is to solely burn fat, and while muscle can be built during cardio exercise,(as will be discussed shortly), that is not our focus. While many of us perform cardio to be heart conscious, we all do it with the intended consequence that it will be 'waist healthy' too. Therefore, our sole requirement is to do whatever it takes to keep that fat burning process going.

In order to do so, you have to approach this opportune meal with a general knowledge that the particular types of food you eat (particular type of macronutrients) and the amount consumed of each type is going to affect your hormonal environment, which will play a direct role in the fat-burning process. Your body is made up of all types of hormones that regulate bodily functions and each responds differently to the different intricacies you provide it with. Our goal is to keep fat-burning hormones elevated, and at a maximum rate. These fat burning hormones get turned on during a cardio session, so we want to keep them elevated long after exercise stops. Certain types of exercise, which are

discussed in the Training Section, are going to help prolong the fat-burning process more than other types of exercise; nutrition will play a tremendous role in this process as well.

Therefore, in order to do this and create the right environment that will induce fat burning potential to remain at a maximum, your body needs the absorption of those two same nutrients: protein and carbohydrates, but in different amounts.

*The two benefits to cardio are:*

1. It burns calories; AND
2. It changes the hormonal environment in the body, towards one that promotes the burning of body fat.

Protein is essential, but you want to have fewer carbs at this juncture, because the type of carbohydrate and its amount after cardio directly influence the hormonal balance.

So in order to understand this, we must take a look at how our body responds to protein and carbohydrates, respectively.

Protein is anti-catabolic (prevents muscle wasting) and the amino acids (building blocks) derived from foods that contain protein will be used to replenish the fuel stores of protein that were broken down through cardio and prevent the breakdown of your hard-earned muscle from occurring any further.



Therefore, you must take in a fast-digesting protein in liquid form, preferably whey protein. Not only will it put an end to muscle breakdown, but it will keep your metabolism at an elevated level (so long as you don't consume any carbohydrates along with it as will be discussed shortly). This is because catabolism will induce a slower metabolic rate and the protein is preventing this catabolism from ever occurring.

Carbohydrates are a funny macronutrient. You need them for recovery and growth of the muscle, yet too many of them will initiate fat storage.

Remember our discussion earlier about how carbohydrates initiate an insulin spike, and the more carbs that are consumed, the more insulin is released? Well it's important you understand why we want to avoid this insulin spike by understanding the science behind them. Insulin directly regulates the signals that allow fat cells to "open up" and store more body fat, while it directs dietary fat and excess carbohydrates that aren't used for energy into these fat cells. When you eat a lot of carbohydrates, insulin levels increase, and shut down those fat-burning hormones that you worked so hard to get through cardio.



You see, cardio increases the circulation of these tiny messengers that target the breakdown of fat cells called catecholamines. Insulin decreases the release of these catecholamines. Therefore, consuming carbohydrates will prevent the breakdown of these fat cells and initiate the storing of more body fat by allowing the fat cells to open up. Carbohydrates and cardio are completely counterproductive, right?

Furthermore, cardio increases the output of a particular hormone that allows fat cells to be tapped into as a reserve for energy called hormone sensitive lipase (HSL). Insulin works in the exact opposite way ensuring that these fat cells never get tapped into, and will even raise the levels of a different hormone called lipoprotein lipase (LPL), which does the exact opposite of HSL, contributing to fat gain in the fat cells.

Therefore, we would think that we should avoid carbohydrates completely after a cardio workout, right? WRONG.

This occurs because small amounts of insulin actually help raise metabolic levels because insulin can have anabolic benefits (muscle-building) after a workout as previously discussed, remember? Insulin helps with the reparation and eventual growth of muscles, and recovery, like any other metabolic process, requires energy. Where does it get this energy from? BINGO! It takes it from its fat stores in order to keep the recovery or growth process going. Additionally, insulin also promotes an increase in thyroid hormones (hormones that regulate calorie burning).

*This is obviously a lot of information to take in and may seem confusing, so here is a simplistic overview:*

A large amount of carbohydrates consumed will inhibit the fat-burning process and create a negative hormonal environment (one that doesn't associate itself with fat-burning). Yet, eliminating carbohydrates altogether will not adequately repair the muscles properly or keep the fat-burning process going. Therefore, you need to consume some carbohydrates.

*“So how many carbohydrates are not a lot, but large enough to create the proper hormonal environment and which carbohydrates should I consume?”*

You should have slow-digesting carbohydrates (not the fast-digesting ones that you had after your weight workout) along with your protein this time (not like the carbohydrates 20 minutes before the protein that you had after your weight workout either). Ideally, it is best to consume a small amount like 15g of carbohydrates from a source like oatmeal, whole wheat-bread, or another fiber-based carbohydrate within 30 minutes of cardio. Ideally, the carbohydrates ought to be fiber-based, such as oatmeal, oat bran, peas or corn. The low glycemic slower-digesting carbohydrates will result in a moderate insulin rise. This will promote an anabolic environment, without reversing that fat-burning process that you initiated when you started your cardio. Avoid the high glycemic simple carbohydrates, such as white bread, sugar, or juice from concentrate because they will spike insulin levels at the expense of your waist line (compromising that fat-burning process).

Then, one hour and a half after you complete your protein shake and small portion of slow-digesting carbs, then you are to consume a full healthy meal consisting of a solid lean protein selection, low glycemic-index complex carbohydrates, some healthy fats, and key nutrients.



This meal is very important too. While the carbohydrates and the proteins that you consume directly after your workout do the refueling, they replenish your stores in a short period of time. They are immediately used for energy purposes and to replenish. Therefore, your body is still hungry for more nutrients and that is where this meal comes into play (to make up for lost nutrients). Make sure to stay away from the simple sugar, high glycemic carbs at this point, but don't shy away from saturated fats at this point either. This is because they play a huge role in creating a proper hormonal environment in terms of increasing that friendly hormone testosterone, which will actually build muscle and decrease body fat.

Alcohol and weight loss can never go hand in hand. However, many people will continue to drink regardless of the various health risks associated with alcohol consumption, especially when it comes to caloric impact. For people that are especially looking to cut weight while maintaining their drinking habits, you should first understand how alcohol disrupts the body's ability to lose weight.

When you consume alcohol, your body goes through basic metabolic processes. Alcohol is converted by the liver into a certain kind of sugar, known as acetate. The body now treats this foreign substance as priority number one where it needs to burn this sugar off. While you think this is actually a good thing, it is not because your body's burning capabilities are being taken away and being concentrated on burning off the alcohol sugar. Therefore, your fat and carbohydrate burning efforts (used from food intake and your general energy stores) are being put on hold to tackle the alcohol sugars first and not burning off fat in your body. Additionally, not all of the alcohol sugars are going to be burned up. Whatever is not burned up accumulates in your body and the unused energy then becomes stored as body fat.



Alcohol dehydrates your muscle cells, which makes muscle growth dramatically slower. Alcohol also decreases protein synthesis and decreases testosterone levels, which are precursors in building muscle. As a result, you may actually lose muscle mass while gaining fat.

Consuming alcohol can give you the drunk “munchies”. Alcohol interferes with the liver’s ability to break down glycogen in the body. As a result, your blood sugar levels drop, which triggers the hunger reflex. When you are in a drinking environment, the foods that are around you tend to be higher in calories (heavily fried foods). In addition, alcohol can impair your judgment with food and drinks. When you are impaired, you tend to care less about what you consume and rather what satisfies your appetite or urges best. You may tend to eat unhealthy foods and continue to move onto higher calorie drinks, such as mixed drinks



Alcohol manufacturers don't put nutrition labels on their products because they are not required to do so by law and don't expect them to do so at their own liberty out of self-righteousness.

Why would these manufacturers want you to know that most beers have between 150-200 calories in a 12 ounce can? If

you and your friends each have a 6-pack of Budweiser (at 145 calories and 10.6 grams of carbs in each can) before you hit the bars, then you will have consumed 870 calories and 64 grams of carbs by the time you even enter the bar. Once at the bar, you could expect your caloric intake to double. Even a 6-pack of Bud Light gives you 660 calories and 40 grams of carbs with less alcohol content in each beer.



*The following serves as a guide for those who are looking to lose more weight while maintaining their drinking habits (which we obviously do not recommend). We provide you with the best and worst choices for each type of alcohol in terms of what is better for your diet. Be aware that there are other alternatives out there that may be more or less beneficial for your health but I took popularity into account.*

**Note:** Alcohol consumption should be rarely encouraged, as there is a range of health problems associated with it. Alcohol is alcohol and just because one drink has less calories than another doesn't mean the alcohol content in the drink is any different.

## **Beer- 12 oz**



There is a reason why there is such thing as a “beer belly”. In fact, we probably all know friends that have gained a beer belly over the past couple of years. Beer is loaded with calories, sugar and empty carbs, which pack on pounds to your waistline

**Best Choice:** Miller Genuine Draft Light 64  
64 calories and 2.4 g of carbs

**Honorable Mention BC:** Michelob Ultra Light  
96 calories, 3 g of carbs

**Worst Choice:** Guinness Extra Stout  
176 calories, 14 g of carbs

**Honorable Mention WC:** Heineken  
150 calories, 11.5 g of carbs

**Shots- 1.5 oz**



Shots of alcohol are not much better than drinking beer. In fact, they could be worse. Most shots can possess anywhere from 60-80 calories. People tend to drink more shots because it is less filling so be beware of how many shots you are actually consuming. You can easily consume more calories with shots than you would with beer.



Vodka, Rum, Tequila, Brandy and Scotch all have between 64-66 calories and no carbs so there is no clear cut winner or loser.

## Mixed Drinks- Alcohol Amount Varies



Mixed drinks are loaded with not only alcohol, but also high sugared drinks to eliminate the taste of the alcohol. This gives you even more calories than shots or beer. Try ordering mixed drinks with no sugar. Stick with diet drinks to mix with your alcohol.

**Best Choice:** Vodka w/ Club Soda  
65 calories, no carbs



**Honorable Mention BC:** Jack and Diet Coke  
65 calories, no carbs

**Worst Choice:** Margarita  
750 calories and 56 g of carbs

**Honorable Mention WC:** Long Island Iced Tea  
750 calories and 44 g of carbs

## **Wine- 4 oz.**

Studies suggest that a glass of red wine every night can be beneficial to your health. Red wine boots numerous antioxidants and flavanoids, the most beneficial being resveratrol. Resveratrol has been linked with reducing bad cholesterol (LDL), while at the same time increasing the amount of good cholesterol (HDL) in the

body. This may play a big role in fighting against coronary heart disease. Also, resveratrol has been known to have tremendous beneficial properties for your heart, increasing cardiovascular output. Therefore, you should choose red wine over white wine for this reason. Remember though; drink red wine in moderation to avoid the negative effects of the alcohol and its empty calories.



**Best Choice:** Cabernet Sauvignon  
90 calories, no carbs

**Honorable Mention BC:** White Zinfandel  
80 calories, 1.6 g of carbs

**Worst Choice:** Ruby Port  
185 calories, no carbs

Enjoy a drink and take calories into consideration. Nevertheless, never *obsess* over how many calories are in a specific drink because then you could never enjoy the alcohol! Remember, ALWAYS consume alcohol in moderation.

# NUTRITIONAL STAPLES

These foods should make up the consistency of your nutritional regimen because of their health benefits and ability to make your body build muscle and burn fat:

## Eggs

Eggs are the best protein food that you can get. It has the highest biological value (94%) of any food, which is a measure of the protein quality and how much of the body uses that protein to support growth. This provides the most amino acids for growth and tissue maintenance than any other food. A significant part of the egg's protein comes from the yolk. Therefore, you should not shy away from the saturated fat in the egg yolk because this will help increase testosterone levels, which is a precursor for muscle growth. Eggs contain around 6 grams of high quality protein. Eggs are also rich in many essential vitamins and contain all eight essential amino acids that are needed for proper muscle growth and recovery.



## Fish

Fish contains incredible amounts of protein, practically no carbs and healthy fats and omegas. Stick with eating cold water fish (salmon, trout, sardines, etc.) because they provide the most Omega 3 fatty acids, which helps fight muscle inflammation so your body won't feel as sore the next morning (and thus you can workout more effectively)



and reduce the risk of overtraining). Fish is truly one of the best things to eat and the fat from fish is all extremely healthy and will be your friend, not your enemy. Remember the shark example of how lean it is yet it eats seals as the main source of its diet? Fish is a muscle builder and a fat burner.

## Poultry

Poultry, such as chicken or turkey, is a high protein food with little fat. It has a high biological value (around 80%, meaning you can absorb 80% of its nutrients) and relatively inexpensive to buy compared to fish. Make sure it's grilled though!



## Kidney Beans

Beans provide a high amount of protein (14 grams per cup), little fat and possess a lot of fiber to go along with it. Many diets, especially bodybuilding diets, fail to consume the proper amount of fiber. Beans have 11 grams of fiber per cup. In addition, beans have a good amount of carbohydrates (around 40 grams per cup), which is an important muscle-building ingredient.



## Beef

Beef contains a high source of protein and has more fat than the other muscle building foods. Saturated fats should be limited but eating saturated fats in moderation may provide better muscle building benefits. Just with the egg yolks, the saturated fats found in red meat, and all other foods, help boost testosterone levels, which aids in muscle growth. Red meats also have higher calories than the other foods, which make it more ideal for those looking to gain muscle mass; it is perfect for the hard-gainer.



## Sweet Potatoes

Sweet potatoes not only taste sweet but they are sweet for your health! A single serving of sweet potatoes supplies five times the Daily Value for beta-carotene, which protects your cells from free radicals, provides a high source of vitamin A and enhances the functioning of your immune and reproductive systems. In addition, sweet potatoes are good for stomach ulcers and inflamed conditions of the colon and can be a good food for diabetics, as it helps to stabilize blood sugar levels through its slow digesting, low glycemic index. In terms of muscle building, sweet potatoes are a great food to eat, especially pre and post workout. They contain a very good amount of complex carbohydrates, in addition to healthy vitamins, minerals and some protein that are all easily digestible. Sweet potatoes provide a lot of energy that you will need throughout your day and should constitute a staple in your diet.



## Milk

Milk is one of the best sources of calcium, among other nutrients. Calcium is responsible for maintaining strong bones and protects the body from major chronic ailments like bone loss, cancerous chemicals, and headaches. Milk also helps to maintain healthy teeth because it protects the enamel surface against acidic substances. Milk is also a great source of vitamin A and B, which can help promote better eyesight, increase red blood cell count, and promote more magnesium and phosphorus in the body. Moreover, milk is one of the best sources of protein. A glass delivers a whopping 8-11g of protein. Furthermore, milk is a great source of casein protein, which is a slower releasing protein. Casein protein is ideal for a pre-bedtime snack to give the body a constant supply of protein throughout the hours that you are sleeping. Milk actually does the body good.



## Oats

A bowl of oatmeal is a perfect way to start your morning due to its immense health benefits and ability to give you stable energy throughout the day. Perhaps the biggest health benefit that oats have is through lowering cholesterol levels. Oats, oat bran, and oatmeal contain a specific type of fiber known as beta-glucan, which study after study has confirmed to lower cholesterol levels, which can dramatically lower the chance of heart disease. Studies show that individuals who have high cholesterol levels that consume a bowl of oatmeal a day (which contains 3 grams of soluble oat fiber) can lower cholesterol by 8-23%. The reason that this is highly significant is because a 1% drop in cholesterol



levels translates to a 2% decrease in the risk of developing heart disease. In addition, oats contain one of the best amino acid profiles of all grains, which is essential for muscle growth and general functioning of the body. Also, the complex carbohydrates of oats can help lower the chances to get colon, breast, or prostate cancer and can also better manage diabetes and bowel problems such as constipation. Besides lowering cholesterol levels and the other health benefits, oats are a great source of dietary fiber; they consist of nearly equal levels of soluble and insoluble fiber. In general, oats are naturally low in fat and are an ideal ingredient for a low-fat diet. Oats are one of the best sources of energy to get you through your day given its slow-digesting carbohydrate source, so be sure to have a bowl of oatmeal every morning!

## Barley

Barley is one of the best foods to consume to help your intestinal health. Barley is extremely high in dietary fiber, which helps control appetite and also helps prevent constipation. Most importantly, the dietary fiber in barley provides food for the good bacteria in the large intestine, making this bacteria grow and become more powerful in the body, which in turn will fight off free radicals and the bad bacteria that infects your system. The good bacteria produces a fatty acid known as butyric acid, which is the main fuel for the cells of the large intestine and helps maintain a healthy colon. These good bacteria also create other fatty acids, which gives the cells of the liver and muscles fuel. Moreover, barley may play a significant role in reducing heart disease. According to a study published in the Archives of Internal Medicine, eating high fiber foods, such as barley, helps prevent heart disease; as people eating the most fiber (21 grams per day), had 12% less coronary heart disease (CHD) and 11% less cardiovascular disease (CVD) compared to those eating hardly any fiber at all. Moreover, fiber found in barley can help people with diabetes by preventing blood sugar levels from rising too high. Fiber slows down the absorption of carbohydrates and



prevents a dreaded insulin spike, which will inhibit the growth of fat cells. Consume some fiber with nearly every meal.

## Tuna Fish

At nearly 40 grams of protein per can, tuna fish has all the essentials to be the perfect muscle building food. Tuna is low in fat, high in protein and an essential form of omega-3 fatty acids, which helps combat against heart disease and certain cancers and can lower cholesterol levels. Not to mention tuna fish can be used for a variety of meals, which makes it an easy choice for many. Try to keep your tuna in check though as consuming too much mercury (which can be found in tuna) has been linked to some health problem, mainly in young children and pregnant women.



## Broccoli

Broccoli is one of the healthiest foods you could eat. Broccoli is rich in Vitamin A, Vitamin C, calcium, fiber and other nutrients. Broccoli is an important source for calcium for those who don't consume dairy products. Half of broccoli's fiber is insoluble and half is soluble, which gives your body an equal balance of both types of fiber. Broccoli also lowers the risk of various forms of cancer. Moreover, cruciferous vegetables like broccoli have been shown to increase testosterone production.



## Spinach

Spinach is extremely rich in Vitamin A, which protects and maintains the health of your eyes. It is also high in nutrients such as Vitamin K (helps blood clot and bone health), Vitamin A (reduces free radicals in the body), Vitamin C (increase in antioxidants) and helps with anti-aging, which will in turn make you look younger. Spinach also does other wonders for your bodies including preventing various forms of cancer, heart disease and other health problems. Researchers have found at least 13 different flavonoid compounds in spinach, which serve as antioxidants and anti-cancer agents. In addition, researchers have found that spinach improves the learning capacity and motor skills in the brain. Spinach is also rich in lutein, which helps prevent cataracts and age-related macular degeneration, the leading cause of preventable blindness in the elderly. The health benefits of spinach keep going and going and it is one of the healthiest foods you could eat. It is no wonder why Popeye relies on his consumption of spinach!



## Tomatoes

Tomatoes are one of the only dietary sources of the anti-oxidant lycopene. Lycopene is a pigment that gives vegetables and fruits their red color. Lycopene is very high in antioxidants. Studies show that a food high in lycopene, primarily tomatoes, is associated with a lower risk of prostate cancer and cardiovascular disease. A Harvard University study found that eating 10 or more servings a week of tomato products can lower the chance for prostate cancer by as much as 34 percent.



## Almonds

Even though almonds (and all nuts) are high in fat, they possess virtually no saturated fat or trans fat. In fact, almonds are high in monounsaturated fats, which is the same kind of fat that is found in olive oil. Research has found that there may be a 45% reduction in developing heart disease if you substitute almonds for saturated fats or carbohydrates in your diet. Also, nuts can lower your risk of weight gain. A study published in the journal *Obesity* found that people who ate nuts at least twice a week were much less likely to gain weight than those who almost never ate nuts. Furthermore, almonds are rich in magnesium and potassium. Magnesium helps with the body's flow of blood, oxygen, and delivery of nutrients throughout the body and potassium, an electrolyte, helps regulate blood pressure and heart function. A quarter-cup of almonds contains close to 25% of your daily value of magnesium and 10% of potassium. Almonds also decrease post-meal increases in blood sugar, which may help protect against diabetes. Lastly, almonds are a good source of protein. A quarter-cup of almonds contains around 8 grams more protein than is provided by a typical whole egg. Go nuts for nuts!



## Brown Rice

Brown rice is a terrific source of magnesium, iron, phosphorus, manganese and vitamin B1, B2, B3 and B6. In addition, brown rice is an excellent source of dietary fiber and protein. The difference between brown and white rice is that white rice is essentially brown rice with all the essential nutrients removed in order for the rice to be

cooked easier and more efficiently with a longer shelf life. Brown rice contains gamma-oryzanol, a compound that can lower cholesterol. Brown rice has 88% of the daily value for manganese, a mineral that helps produce energy from protein and carbohydrates. This high level of manganese helps with the synthesis of fatty acids, which maintains a healthy nervous system, and in the production of cholesterol, necessary for the production of sex hormones. Furthermore, brown rice is great for those people looking to keep their weight in check. Brown rice metabolizes slowly in the body and helps maintain stable levels of blood sugar and serotonin, which help fight away food cravings. Lastly, brown rice possesses antioxidants and phytonutrients that increases the immune system, lowers cholesterol, reduces the risk of heart disease and can lower the effects of asthma among other things.



# SAMPLE MEAL PLANS

Below are some suggestions of meal plans applying all of the nutritional information from above. The following is set for a 180 lb. active male. Adjust the portion sizes according to your weight (but do so within reason, making a mathematical, calculated judgment), but follow the timing of the meals exactly as dictated.

\*\*Remember that wherever it says post-workout meal for a weight session, have your carb source first and then have your protein source 20 minutes after that. Do not have them together at once.

**SMP with AM Cardio (7:30 AM) and Weights in the Afternoon (5:00 PM)**  
**Pre-Cardio Meal (7:00 AM): 15 g Whey Protein Shake**

**Post-Cardio Meal (8:30 AM): 20g Whey Protein Shake w/ Oatmeal (15g carbs)**

**Breakfast (10:00 AM): 4 Egg Whites, Banana on Whole Wheat Toast w/ Natural Peanut butter**

**Lunch (1:00 PM): Grilled Chicken (30 g protein) w/ Brown Rice (40 g carbs), Steamed Mixed Vegetables on the Side**

**Pre-Workout (4:00 PM): Tuna Fish (30 g protein) w/ Cup of Barley (30 g carbs)**  
**Post-Workout (6:00 PM): Whey Protein Shake (35 g protein) and Raisins (50 g carbs)**

**Dinner (7:00 PM): Grilled Salmon w/ Whole Wheat Pasta (30 g carbs) in Marinara Sauce, Side Salad with Olive Oil and Balsamic Vinegar**

**Pre-Bedtime (10:00 PM): Bowl of Lowfat Cottage Cheese (30 g protein)**

**SMP with Weights in the Morning (7:30 AM)**

**Pre-Workout Meal (7:00 AM): 20g Whey Protein Shake, 2 Tbsp. Honey**

**Post-Workout Meal (8:30 AM): 30g Whey Protein Shake w/ 3 Tbsp. Honey**

**Breakfast (10:00 AM): 3 Egg Whites, 2 Whole Eggs, Banana, Blueberries, Cup of Muesli**

**Lunch (12:30 PM): Bowl of Quinoa, Side of Three Bean Salad, Side of Chickpea Salad, Side of Mixed Vegetables**

**Mid Afternoon Snack (3:00 PM): Natural Peanut Butter on 1 Slice of Whole Wheat Toast**

**Dinner (6:00 PM): Grilled Chicken over a Greek Salad Mixed With Olive Oil and Balsamic Vinegar, Side of Broccoli,**

**Pre-Bedtime (10:00 PM): Bowl of Low-fat Cottage Cheese (30 g protein)**



## SMP with Weights in the Afternoon

**Breakfast (8:00 AM):** 2 Whole Eggs, 2 Extra Egg Whites, 1 Cup of Oatmeal, Banana, and 1 Slice of Whole Wheat Toast

**Mid-Morning (10:30 AM):** Small Can of Tuna Fish with Bowl of Mixed Fruit

**Lunch (1:00 PM):** Turkey on Whole Wheat Bread with Mustard, Lettuce, Tomato and Roasted Peppers, Side of Broccoli

**Pre-Workout (3:30 PM):** Whey Protein (20g protein) and Cup of Pretzels (30 g carbs)

**Post-Workout (5:00 PM):** Whey Protein (30g protein) and Cup of Raisins (50 g carbs)

**Dinner (6:00 PM):** Grilled Tilapia, Jumbo Shrimp, Baked Sweet Potato, Corn, Asparagus

**Late Snack (8:30 PM):** Small Handful of Almonds

**Pre-Bedtime (11:00 PM):** Small Bowl of Low-fat Cottage Cheese (20 g protein)



**SMP with Weights in the Evening (9:30 PM)**

**Breakfast (8:00 AM):** Egg White Omelet with Low-Fat Muenster Cheese, Tomato & Peppers, Whole Wheat Toast, Banana

**Mid-Morning (10:30 AM):** Handful of Filbert Nuts, an Orange, and Canteloupe

**Lunch (1:00 PM):** Turkey on Whole Wheat Bread with Mustard, Lettuce, Tomato and Roasted Peppers, Side of Broccoli

**Pre-Workout (3:30 PM):** Small Cup of Minestrone Soup

**Dinner (6:00 PM):** Grilled Flank Steak, Baked Sweet Potato

**Pre-Workout (9:00 PM):** Whey Protein (20g protein) and Apple

**Post-Workout (10:30 PM):** Whey Protein (30g protein) and Small Bowl of Grapes (30 g carbs)

**Pre-Bedtime (11:30 PM):** Bowl of Low-Fat Greek Yogurt.



## **SMP on a Day Off From Training**

**Breakfast (8:00 AM): Egg White Omelet with Spinach & Tomato, Grapefruit, Cup of Oatmeal with Fiber One in it**

**Mid-Morning Snack (10:30 AM): 8 oz. Glass of 1% Milk**

**Lunch (1:00 PM): Grilled Chicken, Roasted Peppers, Avocado, Low-fat Mozzarella Cheese in a Whole Wheat Wrap, Side of Chickpeas**

**Mid-Afternoon Snack (3:30 PM): Small Can of Sardines with a Banana**

**Dinner (6:00 PM): Grilled Swordfish, Baked Potato, Mixed Steamed Vegetables**

**Late-Night Snack (8:30 PM): Brazil Nuts with Strawberries**

**Pre-Bedtime (11:00 PM): Casein Protein mixed with Water**



## SMP on a Carb Cycling Day

**Breakfast (8:00 AM):** 2 Egg Whites, 1 Whole Egg, Oatmeal (40 g carbs) , Prune Juice, and Banana

**Mid-Morning (10:30 AM):** Large Bowl of Fruit w/ Small Handful of Almonds

**Lunch (1:00 PM):** Grilled Chicken Breast w/ Roasted Potatoes (60g carbs)

**Pre-Workout (3:30 PM):** 20 g Whey Protein and 2 Tbsp. Honey (30 g carbs)

**Post-Workout (5:00 PM):** 30 g Whey Protein (30g protein) and 4 Tbsp. of Honey (60 g carbs)

**Dinner (6:00 PM):** Whole Wheat Pasta with Grilled Scallops in Fra Diavola Sauce, Whole Wheat Roll, Side of Spinach

**Pre-Bedtime (9:00 PM):** Small Bowl of Low-fat Cottage Cheese (20 g protein)  
Mixed With Strawberries, Blueberries, Blackberries & Raspberries



## SMP with a Cheat Meal

**Breakfast (8:00 AM):** 2 Whole Eggs, 2 Extra Egg Whites, 1 Cup of Oatmeal, Banana, and 1 Slice of Whole Wheat Toast

**Mid-Morning (10:30 AM):** Small Can of Tuna Fish with Bowl of Fruit

**\*\*CHEAT MEAL\*\* Lunch (1:00 PM):** 2 Slices of Pizza, with Small Order of Grilled Chicken and Broccoli on Side

**Pre-Workout (3:30 PM):** Whey Protein (20g protein) and Cup of Pretzels (30 g carbs)

**Post-Workout (5:00 PM):** Whey Protein (30g protein) and Cup of Raisins (50 g carbs)

**Dinner (6:00 PM):** Grilled Tilapia, Jumbo Shrimp, Baked Sweet Potato, Corn, Asparagus

**Late Snack (8:30 PM):** Small Handful of Almonds

**Pre-Bedtime (11:00 PM):** Small Bowl of Low-fat Cottage Cheese (20 g protein)



## **SMP for Bulking Up and Putting On Muscle**

**Pre-Breakfast (8:00 AM)- 20 g Whey Protein, Banana , Coffee**

**Breakfast (9:30 AM)- 4 Egg Whites, 3 Whole Eggs, Oatmeal (80 g carbs) and Prune Juice**

**Mid-Morning Snack (11:30 AM)- Natural Peanut Butter on Whole Wheat Bread**

**Lunch (1:00 PM)- Grilled Salmon, Brown Rice (80 g carbs), and Mixed Vegetables in Olive Oil**

**Pre-workout (3:00 PM-30 mins before lifting)- 30 g Whey Protein, Banana**

**Post-Workout (4:30 PM immediately after completion of workout)- 35 g Whey Protein and 80 g Fast-Digesting Carbs From a Dextrose Source (Weight Gainer Protein Shake)**

**Dinner (5:30 PM-1 hour after post-workout meal)- Large Flank Steak, Whole Wheat Pasta in Red Sauce (80 g carbs), Mixed Vegetables Drizzled with Olive Oil, and 1 Glass of Red Wine**

**Late-Night Snack (8:30 PM)- Glass of 1% Milk, Natural Peanut Butter on 1 Slice of Whole Wheat Toast**

**Pre-Bedtime (11:00 PM)- Bowl of Low-fat Cottage Cheese Mixed with Fruit and a Piece of 85% Cocoa Dark Chocolate**

## **SMP for Cutting Down and Burning Body Fat**

**Breakfast (8:00 AM): 20 g Whey Protein, Cup of Blueberries (20 g carbs), and 2 Cups of Black Coffee with No Sugar**

**Mid-Morning Snack (10:30 AM): 3 Eggs and 1 Package of Instant Oatmeal (20 g carbs)**

**Lunch (12:30 PM): Grilled Chicken Breast (20 g protein), Side Salad with Olive Oil and Balsamic Vinegar, and Apple**

**Pre-Workout (2:00 PM): 20 g Whey Protein, Apple (20g carbs), and 2 Cups of Coffee**

**Post-Workout (4:00 PM-after completion of workout): 30 g Whey protein, and Oatmeal (30g carbs)**

**Dinner (5:00 PM): Grilled Salmon, Small Cup of Brown Rice (20 g carbs), Mixed Vegetables with Olive Oil, and 1 glass of Red Wine**

**Pre-Bedtime: Turkey (20g protein) with Mustard**



# SYNERGISTIC EFFECT

Now you know that nutrition is such an important factor and that exercise alone will produce marginal results without proper nutrition. Nutrition is really the driving factor in providing you with the results you want.

However, nutrition and exercise when combined together are a powerful tool. When combined, they provide a synergistic effect

that results in amplified results than if each was done by its lonesome. I'm sure that you've heard the expression " $1+1=3$ ", and in this respect it cannot be more true because proper nutrition adds to the effect of exercise and exercise will play a role in your body's behavior towards the nutrition it takes in.



Simply put, your body treats calories differently when you exercise opposed to when you don't. The calories you eat immediately go towards repair and refueling from exercise. When you exercise, your body needs to use the calories you intake to provide energy while in the gym and repair your muscle tissue outside of the gym, all while still being able to give you energy to do all the simple tasks throughout the day. Furthermore, the more muscle you have, the more fat you burn. Also, the more calories you expend in the gym, the more calories you can get away with eating, without those "excess" nutrients going towards body fat gain. Furthermore, your responsiveness to exercise is more in tune with your goals when proper nutrition is added to the mix. You'll get more results out of your workouts in a shorter period of time. Therefore, both parts are essential, and while nutrition is more important, exercise can never go overlooked. So, please read our training section to complement these principles!

# NUTRITIONAL REFERENCE GUIDE

- A caloric deficit (less calories consumed than expended) is necessary to lose weight, but this should never go too low.
- A caloric surplus (more calories consumed than expended) is necessary to bulk up and put on muscle mass.
- 3,500 calories= 1 pound; Healthy weight loss/gain is 1-2 pounds per week.
- Don't use the scale to measure your weight transformation goals, but instead measure body fat through a mirror.
- Eat for fuel, not for taste. Sacrifice the small things for grand accomplishments.
- Eat 6-8 small meals a day or every 2-3 hours. Stoke the fire, but don't smother it.
- Don't eat too much in one sitting. Never go more than four hours without eating.
- The majority of your calories should come from: 1) Lean protein sources; 2) Low glycemic index carbohydrates; 3) Healthy fats (in that order).
- Breakfast is the most important meal of the day, and therefore should be the biggest.
- Eat natural, whole foods and cut out the processed junk food and refined carbs.
- Never eat more than 35 grams of protein in one sitting and don't eat carbs alone.
- Pyramid down your carbohydrates, in which you consume the most in the morning and virtually none at nighttime.
- Do not eat carbohydrates at night unless when working out in the evening time.
- Eat as many real, whole fruits and vegetables as you want throughout the day.
- Do not use supplements as a crutch, and be wary of which ones you purchase.
- Drink plenty of ice cold water during the day and always drink a glass before you consume your meal to fill you up.
- Have a cheat meal every 3-4 days and have a carb cycling day every 4-5 Days. These shouldn't be on back-to-back days.

- Have protein and carbohydrates before and after your cardio and weight training workouts, but refer above to the correct amounts and types of each.
- If you can't eliminate the alcohol consumption entirely, limit it to a few select low-calorie choices.
- Always be aware of what you are doing and how the nutrition you consume will affect the proper hormonal environment in your body.

## MOVE ONTO TRAINING

***IT'S TIME TO MOVE ONTO THE TRAINING PDF SO YOU CAN LEARN ABOUT HOW YOUR BODY REACTS TO TRAINING, WHAT'S THE OPTIMAL WAY TO TRAIN, AND HOW YOU WILL BE TRAINING IN THE 45 DAY PLAN THROUGH THE REVOLUTIONARY SYSTEM OF H.I.S.T.***