Powerlifting Food Guide

By Thomas Von Ohlen MS, NC

Table Of Contents

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To share a little bit about myself, I have been a practicing nutritionist since 1992. In 1993 I was nationally certified as a personal trainer through the American Council On Exercise (ACE). In the late 90's I was the head strength and conditioning coach for a division 1 college hockey team in New England.

I have seen the potential of aspiring athletes wasted because they weren't willing to commit to their diet. They were as dedicated as anyone when it came to training but they weren't willing to consider the cost of bad food choices. Food gives us fuel and as an athlete you need the best fuel possible for performance.

An elite athlete doesn't just practice and then walk away from the gym or field when they are finished. They define themselves through their sport in everything they do to protect and enhance their abilities. The best of the best know that diet is essential to their success. They are very aware of what they put into their bodies, to determine what they will get out of their bodies.

If a powerlifter focuses solely on her workout routine, she will improve and see strength gains but without the proper nutrition she wont reach her full potential. My hope for you is that you can be better than average. I want you to have an advantage over other athletes by knowing how your body works and how to fuel your body for the best possible performances in the gym and at your competitions.

This book will cover what happens in your body during powerlifting, where you get your energy and how to improve your energy stores. It will also show you five items that may be in your home which are working against your energy reserves. Also included is a specific protocol to drop weight for the day of a competition. Powerlifting is a strength sport that requires much energy which comes specifically from food. If your diet doesn't contain the right foods along with the right amount of calories, your workouts will suffer and you will be more prone to injury. My goal is to help empower you with the knowledge you need to be the best powerlifter you can!

In health,

Thomas Von Ohlen MS, NC

Beyond The Lift

As a powerlifter, your main focus is on muscle development. You want your muscles to grow in strength and recover in enough time to train harder during your next workout. So what really happens beyond the burn of that last lift?

When you do any type of weight lifting you are pushing the muscle beyond it's comfort zone. To compensate, your muscles begin to tear.

Muscle is composed of many elongated cells called muscle fibers (myoneme), which are composed of many myofibrils. Each myofibril contains two myofiliaments: actin (thin filament) and myosin (thick filament). The myosin filaments, which contain cross bridges that break off, move along the actin filaments and cause muscle contraction, setting off a chemical and biological response in the muscles that ultimately forms new cross bridges in the myosin filaments. This is where the growth comes from, as the breakdown of these filaments continues to spur contraction and growth through repair.

So technically your training is breaking down your muscles. After a workout your muscles begin to repair and continue to do so for the next 24-48 hours. Recovery and repair time is the key to building your strength.

During powerlifting exercises, blood vessels in muscles dilate and blood flow is increased to increase the available oxygen. The available oxygen is usually sufficient to meet the energy demands of the body. When muscular exertion is very great as in the case of weight lifting, oxygen cannot be supplied to muscle fibers fast enough. The aerobic breakdown of pyruvic acid cannot produce all the adenosine triphosphate (ATP), required for further muscle contraction. ATP is the molecule used in every cell to produce energy. During heavy training, additional ATP is generated by anaerobic glycolysis. In the process, most of the pyruvic acid produced is converted to lactic acid.

While approximately 80% of the lactic acid is released from the muscles and is transported to the liver for conversion back to glucose or glycogen, the remaining lactic acid must be catabolized completely into carbon dioxide and water. After exercise has stopped, extra oxygen and water intake is required to metabolize lactic acid, to replenish ATP, phosphocreatine, and glycogen; and to pay back any oxygen that has been borrowed from hemoglobin, and air in the lungs.

Elite athletes can have maximal oxygen uptakes which are twice that of average people. This is most likely due to a combination of training and genetics. They are capable of greater muscular activity without increasing their lactic acid production, and they do not become short of breath as readily as untrained individuals. Recovery from powerlifting exercises, which are accompanied by increase in blood lactic acid levels and body temperature, may require up to 24 hours or more to replenish pre-exercise oxygen

levels. This is why it is essential to take at least 3-5 minutes of rest and moderate to deep breathing between sets of heavy squat, bench and deadlifts.

Deep breathing exercises during the day are helpful to oxygenate your cells. Do them an hour before training, an hour after training, then an hour before bed. Take in a deep breath through the nose, hold for a one count, then exhale completely, through the mouth. Do this 25 to 30 times, three times a day. If you ever feel light headed, stop the deep breaths until you feel steady again. Light stretching after training, along with light massage can help push the remaining lactic acid out of the muscles, but water replenishment is crucial to recovery.

With all of this going on inside it is imperative that you assist your body to recover quickly. The three areas to focus on to improve your recovery quality and speed are food, rest and water.

Key To Recovery: Food

Everything you eat, your body metabolizes to allow you to function. Whether good or bad, your body will use what you eat for performance so it is imperative to strive for the best quality of foods.

There are three categories of food components that produce energy, protect your organs, and build and repair your muscles. The quality of these three types of foods must be evaluated before consuming them.

Carbohydrates: There are two types of carbohydrates (carbs) which we will discuss. The first are “complex” carbs. Complex carbs take longer to breakdown but give you more of a sustained energy release when needed. Foods such as brown rice, whole wheat pasta and breads, sweet potatoes, and quinoa are good examples of high quality complex carbs. The second category of carbs are “simple” carbs. The best simple carbs come from fruits, while lower quality simple carbs come from refined flours and sugars found in cakes, cookies, jams, soda and energy drinks, candy bars and enriched and bleached breads.

Carbs are where your energy comes from, whether for powerlifting, working, reading or even sleeping. Your body depends on your blood carbohydrate and stored carbohydrate (glycogen) levels to use for energy production and proper body functions. Your diet should consist of 80% complex carbs and 20% simple carbs. Remember, simple carbs are quick to digest and are great when quick energy is needed but if your body is not in need of energy immediately it will store simple carbs for later use in the form of fat. In the “Essential Fuel Meal” section you will see the best time to eat your simple carbs.

Protein: Your body depends on protein to rebuild and grow muscle strength. You need to get enough high quality protein every day to feed your muscles. Your intake of protein should be 1-2 grams a day per pound of body weight. One gram per pound of body weight if you are doing normal training, and up to 2 grams per body weight if you are trying to build more muscle mass. With the higher levels of protein intake you need to be especially diligent in your water intake to ensure you are flushing your kidneys from excessive protein breakdown. The best sources of protein (organic when possible) are

egg whites, chicken and turkey breast, whey protein powder, lean grass fed beef, tuna, salmon, other white fish, bison, almonds, walnuts, lentils and beans.

Fats: Every one of your 75 trillion cells has a phospholipid membrane surrounding it, which is composed of essential fats. Without certain fats our bodies will not function, period! Quality sources of fats include cold pressed olive oil, coconut oil, flax seed, almond butter, raw dairy butter, fish oil, nuts, and avocado. Consuming normal quantities of these fats will not cause you to put on adipose fat, but consuming bad fats like hydrogenated, trans fats from packaged foods will not only cause fat retention, but lead to a host of other diseases.

Calories: A calorie is a measure of energy expenditure. There are 4 calories in a gram of protein, 4 calories in a gram of carbohydrate and 9 calories in a gram of fat. It is important to eat the right ratio of proteins, fats, and carbohydrate to ensure you are getting the best fuel mix for your training. Your total calorie consumption is not as important as the ratio that makes up that total. Often we find fats and carbs are too high and protein too low in an athletes diet. If you powerlift without the proper ratios you can jeopardizing your recovery and strength. Your ratios of carbs, fats and proteins will differ from meal to meal. For a specific breakdown please read the section on Powerlifting Essential Fuel Meals.

Organic verses Non-Organic: The major difference between organic and non-organic foods are the chemicals used during the growing and manufacturing of non-organic food. There are over 7,000 pesticides, herbicides fungicides that are sprayed on our foods today and the FDA admits that two-thirds of them cause cancer. Now include the food additives and you just added another 1500 chemicals. “They” say, since there are only small amounts used in the food it is safe. The problem is these “small” amounts of chemicals in all of your food are compounded and over time are the root cause for many illnesses. If you are just starting to consider buying organic, don’t be overwhelmed by the switch. Start slowly, first with your fruits, then vegetables, then meats and so on. This order will eliminate the foods with more chemicals first and you will notice the difference in taste.

Powerlifting Essential Fuel Meals

Essential Fuel Meals (EFM) are the most important meals you consume in a day. They require extra special attention and are based around specific times of the day. These meals target your training by providing you with the precise nutrients you need, at the exact time you need them. There are three EFMs you should have on training days. The first EFM is your first meal of the day, your second EFM is 30 minutes before a workout and your final EFM is immediately after your workout.

Morning Essential Fuel Meal (EFM): Every night while you sleep your body rests and recovers from the day's physical, mental, chemical and emotional stresses. During this time you don't eat or drink anything. Upon waking the average American will get up, brush their teeth, shower, get dressed and then, before running out the door, grab a cup of coffee. This behavior must be stopped and replaced with the proper EFM to start the day, which will set the tone for the rest of your day. Your first meal is essential because your body is being depleted of nutrients since you haven't eaten anything for 6-12 hours. Your metabolism wont jump start until you eat! Your muscles may be catabolizing because they don't have the protein needed to maintain optimal integrity. For your morning EFM you need to eat a meal consisting of 50% protein, 30% complex carbs and 20% fats.

Pre-Workout Essential Fuel Meal (EFM): Everyone trains at different times of the day but no matter what time you train it is very imperative to fuel your body with a proper balance of nutrients. Do this 30 minutes before your workout so you have the fuel to push your muscles harder and get the most out of your training. This meal should be 60% complex carbs, 30% protein, and 10% fat.

Post-Workout Essential Fuel Meal (EFM): As we discussed earlier, the post workout EFM is critical for the repair of your muscles. This meal will ensure your body has a head start for the recovery phase and should contain 30% simple carbs 30% complex carbs and 40% protein. Since training for powerlifting is intense, your body uses all the energy it has for your workout. Simple carbohydrates break down quickly to provide the body with energy. This is the only time simple carbs are recommended, as any other time simple carbs are consumed and your body doesn't need the energy, they are converted to fat and stored in your least favorite places! Some "experts" say this is the time to have a candy bar or other processed sugars because your body is less likely to convert it to fat and more likely to use it for energy. The problem with this idea is, bad quality carb consumption when your body is hungry for fuel to repair itself will lead to your body craving these carbs at other times.

Use a simple fruit sugar mixed with a complex carb instead. You could also use dextrose as your simple carb for a recovery EFM. Rice milk is typically made with brown

rice, a complex carb and this is a good source for your post workout shake. The complex carbs take longer to break down and provide you with long term energy.

When having a recovery EFM, always include a protein. This not only helps in muscle repair, but it will decrease the amount of insulin released from the carb intake. Too much insulin release will eventually lead to diabetes.

Every thing you eat or drink will effect your performance as a powerlifter. While there is a strong emphasis placed on your EFMs, your other meals are very important as well. Whether maintaining your weight or losing weight, you will always want to focus on quality food intake.

Here is an example of a workout day with EFMs.

Workout Day- Total Calories (Cal): 1,126 Total Fats (F): 17.9 g Total Carbohydrates (C): 104.5 g Total Protein (P): 133.6 g

Morning EFM- Cal:290 F:17% C:33% P:50%
5 Egg Whites
1 slice Turkey Bacon
1 slice Ezekiel Bread

Meal 2- Cal:227 F:34% C:13% P:54%
4 Ounces Tuna Fish
Lettuce & Tomato
2 TBS Low Fat Mayo

Pre-Workout EFM- Cal**:**151 F:7% C:59% P:34%
1 ounce Buffalo Jerky
120 Grams Baked Sweet Potato

Post Workout EFM- Cal**:**243 F:12 % C:49% P:38%
Protein Shake
- Vanilla Whey Protein Powder
- 180 Grams Frozen Fruit
- 4 ounces rice milk
- 4 ounces water

Meal 5- Cal:306 F:4% C:38% P:58%
4 ounces of Chicken
2 Cups Broccoli
1/4 Cup Brown Rice

Key To Recovery: Rest

Rest is imperative for your body to recover and gain strength from powerlifting training. I regularly hear people, including powerlifters, complain that they do not get enough sleep or that they are still tired when they get up in the morning, perhaps indicating that they did not get quality sleep.

Just how much sleep should we be getting? Most research has shown that the optimal level of sound sleep a person should get a night is 8 hours.

Unfortunately, it is estimated that over the past century a person's average nightly sleeping time has been reduced by 2 hours. Interestingly enough, many people get distracted by things like the TV or the Internet instead of heading to bed when they need to in order to ensure a restful night's sleep. I know you may be on the Internet right now, but read the rest of this chapter before going to bed, it will prove to be useful in the future!

I have heard the expression "I will sleep when I am dead," used all too often these days. Well, if you don't get quality sleep, and enough of it, you might fulfill that old expression sooner than you think!

So why do we need sleep? Every human being needs a certain number of hours of sleep each day to revive brain cells and other body systems so they'll continue functioning effectively. So we actually shut down the body at night to repair both the short-term damage that has occurred during the day, as well as some chronic health problems that our bodies are fighting to defeat.

When powerlifters train hard during their workouts, it causes micro tears in the muscles which are then repaired with the proteins, vitamins, mineral, and water we consume. However, during the day when we are active, the body's primary focus is not on muscle repair. At night, during our sleep cycle, is when the majority of work is performed on muscle building through repair. This is why it is so important for powerlifters and other athletes to get enough quality sleep.

Our natural sleep patterns are controlled by an internal body clock called a "circadian clock." It regulates body temperature, hormone levels which regulate metabolism, heart

rate and other vital body functions including our immune system. If someone is suffering chronic loss of sleep, these important functions soon become impaired and overall health is usually affected . . . as is a person's memory and mood.

How can you determine if you're suffering from sleep deprivation? Here are a few simple questions you can ask yourself:

1. Do you yearn for naps during the day or find yourself dozing off at inappropriate times?

2. Do you feel out of sorts, anxious or groggy, especially when you're less active?

3. Are you coming down with more colds and flu symptoms than normal?

4. Do you suffer from other medical or emotional conditions that could be keeping you awake?

5. Do you take prescription or the over-the-counter drugs which may be interfering with your sleep?

So what can you do to ensure yourself a better night's sleep?

• Create a comfortable sleep environment, which means everything from a firm mattress to good air circulation to absence of light and noise.

• If noise or light bothers you, you may want to use a sleep mask and ear plugs.

• Don't try to fall asleep on a full or empty stomach and cut back on fluids a couple of hours before bed.

• Do some deep breathing exercises.

• Don't drink alcohol or caffeinated drinks, especially before bedtime and quit any tobacco use.

• Establish a bedtime ritual. This includes going to bed at the same time each night. Make sure that you set a specific time when the TV and computer MUST be shut down.

• Often times it helps to take a warm shower or bath to soothe your muscles, helping to put you into a relaxed mood for sleep.

• Stretching before bed will help protect you from tight muscles when you wake up, by moving lactic acid out of the cells in your muscles.

• Lastly, don't take your troubles to bed with you. Try to resolve your stress before going to bed. You need to sleep to repair damage, not wrestle with unresolved stress!

Once you discover that a few extra hours of sleep are helping you to feel more rested, relaxed, and healthy than you have in a long time, giving up that extra hour of TV or Internet will have been well worth it.

Key To Recovery: Water

The human body contains approximately 65% water. For the average (non-powerlifting) person it is recommended that they drink eight glasses of water per day. The average person however, doesn't train in the gym 3-5 days per week, continually lifting much more than their body weight. The powerlifter will lose more water per day than the non-powerlifter just through perspiration alone. Unfortunately, water intake has decreased as other flavored beverages have come to market. To quench thirst, people are turning to soda, energy drinks and sports drinks which, at the end of the day, do not equal out to the amount of water an athlete needs.

How does water help you recover?

Water helps to regulate body temperature and is used to help lubricate joints. Since water is a major component of all your cells, it is involved with the transport of all nutrients into your cells, as well as all toxins and by-products out of your cells. As we mentioned earlier, water is involved with the breakdown of lactic acid, a waste product of exercise which causes sore, achy muscles and joints.

Facts about water:

Here are some interesting facts about water from an excellent book called "Your Body's Many Cries for Water" by F. Batmanghelidj, MD.

-75% of Americans are chronically dehydrated. (Likely applies to half world population)

-In 37% of Americans, the thirst mechanism is so weak that it is often mistaken for hunger.

-Many chronic pains, including headaches, are simply thirst signals of the body. Colitis, arthritis, chronic fatigue, fibromyalgia, back pain, neck pain, gastritis, heartburn, even asthma, allergies, stress and depression can many times be helped simply by increasing your water intake.

-Even mild dehydration will slow down one's metabolism as much as 3%.

-One glass of water quieted midnight hunger pangs for almost 100% of the dieters studied in a University of Washington study.

-There is confusion in the idea that intake of tea, coffee, flavored waters or alcohol and caffeine-containing beverages can be taken as a substitute. They cannot. The body does not recognize those as 'water', and continues to dehydrate.

-Lack of water, the #1 trigger of daytime fatigue.

-Preliminary research indicates that 8-10 glasses of water a day could significantly ease back and joint pain for up to 80% of sufferers (not to mention Headaches!).

-Don't confuse pure water, which the body needs, with the various 'flavored waters' on the market which act similar to soda.

-A mere 2% drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on the computer screen or on a printed page.

-Drinking 5 glasses of water daily decreases the risk of colon cancer by 45%, plus it can slash the risk of breast cancer by 79%, and one is 50% less likely to develop bladder cancer.

-Are you drinking the amount of water you should every day? An absolute minimum is 6-8, 8 ounce glasses of water a day from a pure source!

Water is boring?

Instead of turning to energy drinks filled with food dies and other harsh chemicals, turn to what your body is really craving, water. This doesn't mean your water has to be boring or plain. There are natural ways to flavor your water, such as using lemon, mint and herbal teas. For a healthy sweetener with zero calories, Stevia can be used in powdered form or liquid drops and comes in a variety of flavors. Other natural sweeteners that are available are honey and agave.

Avoid adding artificial sweeteners like aspartame (aka: NutraSweet, Equal, NatraSweet, Canderel, Spoonfuls, DiabetiSweet) and sucralose (aka: Splenda) which have been linked to skin rashes, panic attacks, bladder issues, stomach pains, brain tumors and cancer.

Tap Water

The municipal water treatment plants in each city regulate the quality of water. To remove the natural organisms that are in the water and kill bacteria they add chemicals which can cause serious harm to our bodies over time. The major chemicals added to our tap water are chlorine, fluoride and sometimes water softening chemicals. There have now been reports by the Associated Press that you may find traces of prescription drugs in your tap water including painkillers, antidepressants, sex hormones and anti-seizure compounds, just to name a few. Over the counter drugs are also showing up in tap water as well as compounds from beauty care products like shampoos, deodorants

and soaps. With all the chemicals in our tap water, I wouldn't want to cook with it and I would certainly not give it to my dog, so why would I drink it?

Some examples of beverages that may use tap water include energy drinks, sports drinks, sodas and even bottled water. Some may say, "Purified," but water purification can do very little depending on the process used. Unfortunately we can't control what goes into our favorite drinks but we can control what goes into our bodies. It is well worth investing in an at home 5 stage reverse osmosis (RO) system which will remove 99.9% of the chemicals that are prevalent in our water supply along with other unwanted metals like copper and aluminum.

Bottled Water

Due to the lack of quality in our tap water, bottled water has become a popular option. If your bottled water doesn't say the word "source" or "spring" in the ingredients description, then they are most likely using tap water. The main issue with bottled water, besides the glorified tap water possibilities, are the quality of the bottles. Plastic bottles numbered on the bottom 1, 3, 6, and 7 have negative affects on the liquid or food inside them, mainly due to the leaching of chemicals from the bottle. These bottles are produced from thinner, cheaper quality plastic. If at any point the bottle is heated, for example in a hot delivery truck, the plastic leaches a chemical known as BPA (Bisphenol A). BPA has been linked to sexual dysfunctions, heart disease, diabetes, and has harmful affects on infants who are exposed through the mother or through their bottles made with this poor quality plastic.

The better quality plastics are numbers 2, 4 and 5, which are typically more expensive bottles because the quality is significantly higher. BPA free plastic bottles are a better choice. My personal preference for water bottles are stainless steel bottles. These bottles don't leach chemicals out so they can be kept at any temperature without adding chemicals to your water.

Energy Drainers

Common Foods That Cause Unseen Harm

The human body is very intricately designed, with each system in the body having specific functions. If our bodies were computers, most would not be functioning since computers weren't designed to adapt, but the human body is. For example, when food is restricted the body automatically starts to hold onto stored fat. This is an involuntary adaptation to protect us from starvation. The same thing happens with water, when water is restricted the body holds onto what it has and will hoard anymore it gets to protect you from dehydration. Your body wants to survive no matter how bad the circumstances are.

As a powerlifter you want your body to function optimally, you don't want these adaptations for survival to take over. They are underlying causes of weakness, lack of energy and even illness. In the following section I will discuss common energy drainers which cause your body to stop functioning optimally without you even knowing it, thereby draining your energy and holding you back from being a better powerlifter.

Caffeine

Caffeine is found in coffee, soda, energy drinks, diet pills and many other products. Some people have caffeine infrequently while others have it consistently through different forms. No matter what the reason or the frequency, anytime a person consumes caffeine their body is forced into an adaptive state.

What you see: Great taste, and increased energy.

What you don't see: Caffeine stimulates the production of adrenaline, a hormone regulated by the adrenal glands. This is the same hormone which is secreted in the fight or flight response, giving you the energy to protect yourself by fighting or running.

With caffeine constantly stimulating this production instead of it happening naturally, the adrenals are weakened. They can't regulate their own hormone production and balancing because they are being forced to do so synthetically. Now your adrenal glands become dependent on the caffeine for energy. This is where the caffeine dependancy comes from. Instead of giving the adrenals a break to function properly, we are putting more fuel on the fire, causing more disfunction. In the end, we take in more caffeine to push our exhausted adrenals for energy, but it's like whipping a dying horse.

At this point the dependancy will grow to other functions in your body. What else is affected by the adrenal glands being weakened?

Some of the more than 40 hormones the adrenal glands produce and regulate:

•Corticosteroid Hormones

-Hydrocortisone Hormone: Also known as cortisol which regulates the use of proteins, fats, and carbohydrates.

-Coricosterone: This hormone is one of two which inhibit inflammation in the body and help initiate the immune response against pathogens.

•Aldosterone Hormone: This hormone maintains blood volume, blood pressure and regulates sodium secretion through the urine.

As a women who is getting involved with powerlifting you want your body to be able to regulate it's energy production properly, process your proteins, fats and carbohydrates and you definitely need to regulate inflammation. Whether you want to powerlift or just lose weight and get more out of life, caffeine is controlling more than how you think and feel.

If you are addicted: If you are caffeine dependent, you will find it incredibly difficult for your body to quit cold turkey. The best option is to reduce your intake by 1 cup every week. Once you are down to one cup, ween down by a quarter cup each day and plan on getting off completely during the weekend when you have less obligations to handle.

During this time, you will find that your energy levels will be lower and it is possible that you will have headache withdrawals. The headaches will go away and as your adrenal glands get stronger they will become more efficient at regulating your energy. Drinking a lot of water with fresh lemon will assist your body in detoxing from this drug. The benefits to your body will overwhelmingly exceed the short time it takes to transition off of the caffeine.

Caffeine Energy Shots: Take it from someone who is not caffeine dependent, if your body was functioning the way it was designed to and you took a "5 hour energy shot," you would not be able to think clearly and you would not be able to hold a steady hand. If you find that you don't have this reaction it is evident your adrenals are weak. As we discussed earlier, weak adrenals are not conducive to good powerlifting. For energy, start focusing on your carbs, specifically your complex carbs. This is how your body naturally produces energy. Often when people diet they are too restrictive with their carbs. If you feel tired or can't workout properly, carb intake is the first thing you adjust.

Caffeine associated problems: Your body takes 40 minutes to completely absorb the caffeine into your blood stream. It will now take up to 8 hours to eliminate that caffeine from your system. If you are on birth control pills it can take up to 32 hours, for pregnant women it can take up to 40 hours and for nursing mothers caffeine is secreted in breast milk.

Here are some other issues related to caffeine intake: Raises blood pressure, increased risk of miscarriage, toxic dementia and memory impairment, deterioration of social and intellectual behavior, attention deficits, disturbance in thinking, judgment, perception and motor activity, insomnia, anxiety, fibrocystic breast disorder, increased risk of breast and ovarian cancers.

Decaffeinated Coffee: The issue with decaf is, it still contains 5% caffeine and will not allow your adrenals to rest and come back to normal function. In addition, most decaffeinated coffee goes through a chemical process which uses bromide, a cancer causing agent.

Diet Soda: I won't even get into regular soda which contain 10-12 teaspoons of sugar per 12 ounce can. Diet sodas contain not only caffeine, but the artificial sweeteners mentioned earlier as well. Sweeteners such as aspartame (Nutrasweet) have been shown in the research to be linked to dozens of serious issues including seizures, allergies, headaches, moods swings, vomiting, change in vision, memory loss, fatigue, rash, insomnia, change in heart rate, and brain tumors in animals. In addition, aspartame contains methanol which the body breaks down into formic acid and formaldehyde. Formaldehyde is one of the main substances pumped into a dead body during the embalming process!

Processed Flour

Processed flour is whole wheat flour that has been rolled and chemically stripped of over 30 nutrients, then it is bleached to give it a lighter color and sprayed with synthetic vitamins to “enrich” it. They are enriched with, thiamin, riboflavin, niacin and iron at levels set by the government. This process allows for the shelf life to increase because the living organisms in the pre-processed wheat are destroyed. The over processing of the natural wheat flour has a negative affect on the carbohydrate structures, leaving behind more of a simple sugar, not a healthier complex carbohydrate.

To get into a little more detail, since natural aging and bleaching are somewhat time-consuming processes, chemicals are now used to do both. Potassium bromate and chlorine dioxide gas rapidly age flour. Chlorine dioxide and other chemicals bleach flour by removing yellow pigments to obtain a uniform white color. Bleaching destroys flour's naturally occurring vitamins, which are replaced in fortified or enriched products.

Many breads are now produced using hydrogenated oils. When processed flour and hydrogenated fats break down from the rest of the flour components in the intestines, they form a substance similar to glue and stick to the walls of the colon. This in turn causes larger partially digested food substances to stick to the plaque, leading to digestive issues.

Whenever possible, avoid processed flours and try to consume “stone ground” whole wheat products instead. I also like Ezekiel bread, here are the ingredients from the label: Organic Sprouted Wheat, Filtered Water, Organic Malted Barley, Organic Sprouted Rye, Organic Sprouted Barley, Organic Sprouted Oats, Organic Sprouted Millet, Organic Sprouted Corn, Organic Sprouted Brown Rice, Fresh Yeast, Organic Wheat Gluten, Sea Salt.

Cell Phones

OK, I'm not telling you to rid yourself of your cell phone in this section, so take a deep breath and relax. Now, there are some key things you can do to minimize the negative health effects of cell phones, as well as improve your workouts, just by the proper placement of your phone. With cell phones, you have easy access to anyone from anywhere, not to mention the great apps on "smart phones" which can be used for countless purposes.

However, it is well documented that cell phones give off radio frequency radiation. This radiation has been linked to infertility issues due to the placement in pockets or purses near the reproductive areas. It has also been linked to damaged genetic material as well as brain tumors from holding the phone against the head. Where you carry your phone is where your body is likely to have an issue.

To improve your workouts, remove your cell phone from your person and keep it at least 12 inches away. If you can, turn it off, or put on airport mode if your phone has that option. This will allow your body to completely focus on your workout instead of trying to combat against the radiation which interferes with your body's natural energy meridians.

For best practices it is recommended that you always try to keep your phone from touching your body, thankfully a purse gives some separation. If you are at the gym, keep it in your gym bag or on a ledge away from you during your sets!

Beauty Care Products

Beauty products are designed to make you look, feel and smell great. What you may not realize is, as you wake up in the morning and get ready for your day you are slathering on toxic chemicals that are forcing your body to adapt.

What you see: Good hygiene that enhances your looks and scent.

What you don't see: Anytime a chemical is introduced into the body, your body is forced to process it. Because these chemicals weren't designed for your consumption, your body goes through several phases of adaptation, each specific to it's own chemical.

The average women uses 9 beauty care products per day, exposing themselves to an average of 168 chemicals on a daily basis. Several of these chemicals are linked to cancer, as well as other very serious health diseases like Alzheimer's. The way these chemicals enter the body is by absorbing them through the skin, inhaling their fumes and ingesting them. The good thing about many beauty care products are their healthy alternatives which work just as well if not better than the originals.

Listed below are some common beauty products along with the main chemical that cause high adaptation in your body but can be avoid by simply reading their labels.

Antiperspirant: Aluminum

The purpose for aluminum in deodorant is the active ingredient for an anti-perspirant. When this chemical is applied under the arms, it is quickly absorbed into the skin. Since your body doesn't want to absorb these chemicals in, it closes off the sweat glands to stop them from absorbing even more chemicals.

Aluminum has been linked to neurological disorders, memory loss, Alzheimer's, brain fog, loss of coordination, learning difficulties, mental confusion, and headaches. There are also conflicting studies linking antiperspirant use to breast cancers.

Replacement: Find a deodorant that doesn't contain aluminum. Arm & Hammer has a non aluminum brand as well as Tom's of Maine and there are several crystal mineral options that you can find at a health food store which are even better for you.

Sunscreen: Oxybenzone

With cancer growing at a rate of more than one million new skin cancer cases a year, so is the use of sunscreen. Consumers are trying to protect their skin from sun damage and are unknowingly slathering on chemicals that are linked to cancer. A study by the U.S. Centers for Disease Control (CDC) reveals “97% of Americans are contaminated with a widely-used sunscreen ingredient called oxybenzone that has been linked to allergies, hormone disruption, and cell damage.” Environmental Working Group's (EWG) analysis of ingredient labels found that nearly “600 sunscreens sold in the U.S. contain the toxic chemical oxybenzone, including products by Hawaiian Tropic, Coppertone, and Banana Boat.”

Most places that sell sunscreen don’t offer an oxybenzone free sunscreen. Why is it in your sunscreen and/or makeup? This is one of several active ingredients that are used to chemically block the sun from penetrating the skin. It is preferred because the cost is minimal to the manufacturer.

This chemical has been linked to cancer, allergies, and hormone imbalances.

Replacement: There are other active ingredients that protect against the sun, that don’t have all the harmful ingredients. Zinc and titanium dioxide are two safer alternatives to the toxic chemical blockers used in most sunscreens. I recommend a sunscreen that does not contain any harmful ingredients, is fragrance free, titanium dioxide based, can be worn under makeup and leaves no white residue. Click here for more information.

Toothpaste: Fluoride

Fluoride is found in most well known name brand toothpastes. We have been told for sixty years now that it is safe for our teeth and preventing and even reverses tooth decay. So why is this on my list? One important thing to remember is, when a food, nutrient, mineral etc., occurs in nature it is natural but when a chemist comes in and matches the chemical properties of that natural product, you now have an inferior man made product. Therefore we cannot expect to get the same benefits when comparing natural verses chemical. Fluoride is a natural occurring mineral that is found in different levels of water. Take a look at your toothpaste and you will find this on the label:

"WARNING: Keep out of reach of children under 6 years of age. If you accidentally swallow more than used for brushing, seek professional help or contact a poison control center immediately." Why the need for a warning?
One of the little-known facts about fluoride toothpaste is, each tube of toothpaste, even those specifically marketed for children, contains enough fluoride to kill a child! Now, think about what we have discussed earlier regarding daily exposure to even small amounts of certain chemicals and their affect on our bodies.

Do a little research and you will find many third world countries, who do not have fluoride toothpastes or fluoride in their water, have less incidence of dental carries than

the USA, where fluoride toothpaste and fluoride polluted water has been used for decades.

Replacement: Find a toothpaste without fluoride. Note that "natural" toothpaste does not mean that it is fluoride free. For more information about the harmful affects of fluoride this is a great book is, "The Case Against Fluoride."

Wired Bras: Built In Wire

Bras happen to cover important lymph nodes in your body. Lymph nodes are apart of the lymphatic system, which is a waste management system that closely follows the blood vascular and nervous systems. Unlike the vascular system, the lymphatic system doesn't have a pump to push the fluids throughout the intricate pathways to move the white blood cells which eliminate pathogens, including cancer cells. There are several ways to encourage the movement of lymphatic fluids including walking, running, jumping or manual manipulation like massage. The tight pressure of a wired bra constricts the movement of the fluids therefore causing the pathogens to build up in that area without being able to move further and this is why wired bras have been linked to breast cancer.

Replacement: Find bras without wires, they are increasingly growing in popularity because of the awareness that women have for the negative affects of wired bras. You can even find them at large retail chains such as Kohl's or Walmart.

Silver Fillings: Mercury

Silver fillings, also known as amalgam fillings, are often used to fill dental cavities. This type of filling has been deemed safe by the American Dental Association despite the fact that they contain mercury. Mercury toxicity has been linked to several cardiovascular, gastrointestinal, neurological effects as well as infertility. It has also been linked to Alzheimer's Disease, leukemia, multiple sclerosis, Hodgkin's disease just to name a few. The research shows these fillings are constantly releasing mercury when chewing takes place and over time the body may become toxic.

Replacement: There are 2 non-mercury options that can be used to fill cavities. Composite resin and porcelain fillings, neither contain mercury and both can be matched to the color of your teeth. If you have mercury fillings, remove them even if you can only do one at a time because of the cost, as the negative health affects are serious. It isn't worth poisoning your body on a daily basis if you can avoid it.

Products To Avoid As A Powerlifter

While powerlifters are strong, they are always looking to improve themselves. There are positive and negative products which are used throughout the industry and this section will discuss products you should avoid for health reasons. There will always be an upside to using these products but the negative affects are not worth it in the long run.

Anabolic Steroids: They are a synthetic form of testosterone which is often used by men and women powerlifters to increase their strength and reduce recovery time. This is a male sex hormone, so when a women uses it, the side effects are compounded and increased as steroid use is increased. Although not addictive in physical dependancy, it is psychologically addictive due to the results it can deliver. It is very common for someone to start using a small dosage and when the results plateau, increase the dosage slightly, over and over again. Several of the side affects are irreversible and include a more masculine physique, deepening of the voice, male pattern baldness, depression, aggression, mood swings and can affect the reproductive system.

Please do your homework on this subject if you even think for a second about using these illegal drugs. I have personally seen the devastating affects of these drugs on fellow athletes over the years, some who are no longer with us today.

Diuretics: These have been used to help drop weight before weigh-in at a competition because they quickly cause your kidneys and bladder to release water. They do the job so well that they dehydrate the body, causing diarrhea, joint pain and muscle cramps. All things you don't want to have when you are going to lift heavy weights! Instead follow the, "Pound Flush" protocol at the end of this book to encourage your body to naturally shed unnecessary water weight.

Weight-Loss Pills: There are appetite suppressants and metabolism stimulators that are mixed in many different ratios to bring you different weight loss options. The side effects differ from pill to pill but there is not a single magic pill on the market that works long term and doesn't have dangerous repercussions. As a powerlifter, your diet becomes more about fuel than about desire. Your nutrient ratios discussed earlier in this book will be what you need to focus on. With the increased exercise your weight will shift. Don't try to drop a whole weight class in a week or even a month. Put the same effort in your diet as you do your training and you wont need weight loss pills.

Helpful Products To Use For Powerlifting

Out of the sea of products that are available to athletes, there are some key products that powerlifters should add to their diet which will increase their performance naturally. They are not required, but as you will see below, the benefits are a great addition to powerlifting training.

Creatine: Creatine is known to be a muscle energy enhancer by increasing the production of ATP, which supplies energy to the muscle. Creatine is found in red meat and fish, but often times gets cooked out before you can receive its full benefit. It also naturally occurs in our bodies. Creatine has been shown to decrease muscle fatigue as well as reduce lactic acid build up, the energy waste product discussed earlier. Adding supplemental creatine to your diet will enhance these benefits. It is important to follow the directions on the label properly if you add this powdered supplement to your diet.

EllagiCaps: Recovery is always an issue with lifting heavy. EllagiCaps are a whole food antioxidant supplement. By taking EllagiCaps directly after a workout, you can help reduce the oxidative stress on your body. It will also boost your immune function to ward off pathogens found in the gym, ensuring you don't get sick so your training isn't interrupted.

Protein Powder: Your muscles feed on protein and having protein powder in a shake is especially great after a workout. The best quality protein powder is going to be a Whey Protein Powder from grass fed cows.

Glucosamine: Supporting your joints is critical in powerlifting. Glucosamine is naturally found in your joints but with overuse, the demand becomes greater than the body's natural supply. Taking glucosamine supplements will help repair the cartilage found in your joints. It is also recommended that you take chondroitin along with glucosamine as this assists your body in drawing water into the cartilage, making it more elastic and assisting in the repair along with glucosamine.

Colon Cleanse: If you aren't having a bowel movement at least twice a day, that is evidence your digestive track is not working properly. The bad food we ingest leaves plaque on the intestinal walls due to over processed foods and chemicals we take in. There are healthy ways to get rid of this plaque which can also help you lose as much as 15 pounds. Eliminating this toxic waste can also give you more energy, relieve bloating and fatigue. It can also improve constipation and encourage healthy digestion which in turn will help you be a better powerlifter because your body will be able to properly absorb the nutrients you are feeding it. Beware of fast acting colon cleanses, as these strip out necessary organisms that support healthy digestion.

Competition Week Meltdown: Pound Flush

If you plan to compete in a powerlifting competition, chances are your current weight isn't exactly at the weight class you will be competing in. This is why preparation is key, if you need to drop 10 pounds for your competition you don't wait until the week of weigh-in to start thinking about weight loss.

However, you can drop 1-5 pounds of water weight the week of the competition. There are several different ways people do this and it can get be very dangerous if not done properly. If you restrict your water too much you wont be able to replenish it in time for your competition. Follow this easy guide to prepare for weigh-in on competition day.

As we learned earlier about adapting, we have to trick the body from hoarding water for survival purposes, so the worst thing you can possibly do is to start restricting your intake of water the week of competition.

Monday-Thursday: Follow the points below until you go to bed Thursday night.

Water: Double your water intake, not Gatorade, not juice, not soda, WATER. You need your body to feel like it has all the water it could possibly need. This will allow your body to release it's water stores, which is especially helpful during ovulation and during your period. Normally a person should drink half their body weight in ounces of water so you should be drinking your whole body weight in ounces of water during this time.

Salt: Stop adding salt. Salt is your enemy this week because it helps your body retain water. Your diet needs to be very low in sodium, so if you can help it don't eat out this week, you have no control over the sodium levels in restaurant food and they are very high. The less salt you have the more your body will release that water weight.

Supplements: There are many different kinds of diuretics that you can take. As we discussed earlier, the typical diuretic interferes with your bodies ability to function optimally. Instead, eat foods that are natural diuretics including cranberry juice (not from concentrate), brussell sprouts, asparagus, carrots, cabbage, tomatoes, lettuce, and licorice (not twizzlers, real licorice). You can also take natural diuretic supplements. One that I recommend is called A-C Carbamide from Standard Process. This is a whole food supplement that assists in the natural removal of excess water weight.

Friday Weigh-in Day:

Supplements: Wake up early and take 1 final set of A-C Carbamide with as little water as possible. If you are not using A-C Carbamide then don't take anything and don't drink any water.

Water: After the water you take with your supplements, don't drink water or any other beverage until you weigh-in. If you have to, literally take one sip only. It is amazing how one glass of water can add scale weight to the body.

Food: Do not eat anything until you weigh-in, food has weight and will add ounces if not pounds to your weight.

Saturday Morning Weigh-in: Some federations require that you weigh in the day of the meet. It is always recommended to weigh-in the day before if you can so you can replenish what you have lost. If you don't have a choice, here is the schedule to follow for same day weigh-ins.

Follow Monday-Thursday Schedule above

Friday: Restrict yourself starting at 3:00 PM, this means no water, no food. Take two more sets of A-C Carbamide after the 3:00 PM cut off, one at 3:00 PM and the final set at 8:00 PM. Be sure to limit your water intake both times. Go to sleep early.

Saturday: Wake up, don't eat or drink anything and get weighed-in as early as possible so that you can start refueling your body.

After Weigh-in: It is critical to start replenishing right away. First, drink water and eat some simple carbs along with some complex carbs. Foods high in sodium are also important at this time but don't just go to McDonalds and eat chemically laced garbage. Remember, what you put into your body will determine what you will get out of it. Due to the food restrictions which were necessary to drop the weight, you will likely be craving all sorts of crazy foods. Try to stick to foods you know your body reacts well to. This is the time when carbs are your friend and you need all the energy you can get so load up and enjoy your competition.

Day of Competition Diet: On the day of the competition be sure to pack carbs, both simple and complex. Your body needs energy to break down protein, so on competition day consume minimal amounts of easily digestible protein. Whey protein powder, eggs or chicken breast are good sources. Remember, you need to eat throughout the competition since you burn a great amount of energy during a competition when compared to a regular workout.

Recommended Powerlifting Foods

Vegetables
Green Beans
Spinach
Lettuce
Tomatoes
Spaghetti Squash
Lima Beans
Peppers
Onions
Mushrooms
Zucchini
Squash
Artichokes
Broccoli

Fats
Extra Virgin Olive Oil
Coconut Oil
Raw Butter
Nuts: Almonds, Cashews, Walnuts, Pistachios
Avocado

Dairy
Raw Dairy In Minimal Quantities

Sweeteners
Stevia
Agave
Raw Honey

Proteins
Chicken
Fish
Whey Protein Powder
Eggs
Turkey
Turkey Bacon
Red Meat (minimally and grass fed whenever possible)
Lentils/Beans

Complex Carbs
Brown Rice
Quinoa
Couscous
Sweet Potato
Ezekiel Bread
Whole Wheat Bread (not enriched or bleached)

Simple Carbs
Fruit
Agave
Honey
Jellies and Jams
Carrots