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Welcome!

Ever wonder why animals in the wild aren't overweight? Can you picture a fat tiger? It seems silly to even imagine. So how do all these animals stay so slim? There are two reasons. The first reason is that they are eating foods they are supposed to eat. For example, squirrels eat nuts. Spiders eat other insects. Tigers eat, well, other animals. By studying nature, you can see that different animals are built to eat different foods.

The second reason wild animals stay slim is because they are always engaging in their "natural" activities. For example, squirrels are great at climbing trees, since gathering nuts is how they "make their living". Tigers are great at sprinting and leaping, which again, are crucial for their survival. Different animals are "built" to perform different activities.

The idea here is simple: each species is designed to perform certain activities and to eat certain foods. What happens when these animals are taken away from their natural environments? Look at house pets. They have lower levels of activity compared to their counterparts in the wild. They are sometimes fed "unnatural" foods (leftovers from the dinner table). Too much of this combination, and your pet will get fat.

Guess what? The same idea holds true for us humans! Humans are built to eat certain foods and to perform certain activities. In other words, all humans have a "blueprint" – foods and activities for which we are suited. If we follow this blueprint, we stay healthy; if we don't, our health suffers.

So where do we get this blueprint? This blueprint is based on our genetic past. For millions of years before civilization, humans wandered the earth as hunters and gatherers. The foods eaten and activities performed during this "**Stone Age**" time are what our bodies are need to be healthy. Through researching the past, we can determine the right foods to eat and the right exercise to perform. It turns out the secret to health and fitness is buried in our **Stone Age** past!

First and foremost, this is a workbook. How many times have you read an instructional book, understood the information, but then realized you weren't exactly sure what to do next? This workbook is short and sweet – the focus here is on you applying the information and getting to work. The ultimate goal is for you to have a healthy and lean physique, not for you to have read an interesting book.

The first chapter will provide a breezy introduction to the two main concepts listed above. It will show that Stone Age Power is your ticket to new levels of health and fitness. If more background information is desired, a list of "Recommended Reading" sources is listed in the back of the book. Chapters 2 and 3 forge ahead with optimal plans for eating and exercise. The fourth chapter will discuss other lifestyle factors that can affect your physical and psychological health. Motivational issues concerning weight loss will then be dealt with in Chapter 5. The last chapter of the workbook will summarize and give you a "down 'n dirty" guide to getting in shape. If nothing else, this final chapter lays out the easiest, healthiest way to get in shape for those who have been frustrated by other weight-loss plans.

Take advantage of this opportunity to get in great shape. Make sure to enlist your family and friends in helping you to make changes. It's tough being a "Lone Ranger" – get as much help and support as you can. Remember, our genes want our bodies to eat Stone Age foods and to perform Stone Age activities. **Stone Age Power** has worked for myself and others, and it will work for you too. The time for guesswork is gone, because science has finally given us the answers. So get ready to go back to the **Stone Age** and **feel the Power**!

Chapter 1

The Two Key Principles

Everybody makes mistakes, even scientists. During the 1990s, many scientists slowly came to the realization that some of their assumptions regarding the human body were incorrect. For years, the human body was thought to operate under "homeostasis." This means that the body and its systems are initially at rest, and when stressed, the body strives to return to its equilibrium state. Scientists viewed the body as a static system, one that was fighting to stay in an ordered, predictable state. Sort of like a "couch potato," who never wants to leave the couch!

Recent research suggests a vitally different picture. This view starts with idea that the body is always fluctuating and changing. The body is not struggling to stay at rest, and in fact does not want a totally ordered state. In other words, the body is a dynamic system, rather than a static system. This new view has been coined "homeodynamics," and evidence in its favor continues to mount.

For example, it was usually thought that a healthy heartbeat at rest had a constant rhythm, just like a clock. However, new research has shown that healthy people have a heartbeat that is "chaotic" – that is, the time between beats is constantly changing over a certain range. In fact, patients who have a regular, even heartbeat are the ones with heart problems! Discoveries like this show that the body does not function like a machine. Instead, bodily processes ebb and flow within certain ranges.

Biologists now view the entire human body as a "complex adaptive system." Just as it sounds, a complex adaptive system is 1) a system that can adapt to a changing and unpredictable environment, and 2) a system that is capable of increasingly complex behaviors. For an analogy, think of a modern car engine. First, it can respond to an unpredictable environment: you can tap the gas or floor it, and the engine will respond properly. Second, it can also do many different things: it can idle, it can run for hours at a constant speed, it can speed up and then slow down, or it can sit in the garage for a week and still be fine.

Now compare this to say, a vacuum cleaner engine. It has two speeds – on and off. A vacuum is a simple machine and can only be used for simple tasks. If the vacuum cleaner doesn't suck something up, then you just have to pick it up by hand! It can't adapt to different circumstances, and it can't perform complicated tasks.

As another example, some writers feel that successful *businesses* are similar to complex adaptive systems. If a business can respond to a changing and unpredictable marketplace, it will be successful. If it tries to apply the same formula to different situations, ultimately it will fail. We all know of businesses that failed to change, and then failed to exist!

The study of complex adaptive systems in biology is still in its infancy. However, scientists have discovered some important characteristics of these systems. For our purposes, the most important piece of information we can take from these studies is the crucial role of variety. Complex adaptive systems are built for a changing and unpredictable environment. In a sense, they are born to adapt. When sufficient variety is present, the system thrives and is in its optimal state. Without sufficient variation, complex adaptive systems lose their dynamics and disintegrate.

The Body Needs Variety

Since the human body is a complex adaptive system, variety is crucial for developing a *healthy* body. Literally, the human body needs variety in order to survive! Doesn't it make sense that the body needs variety? Who likes to the same thing, day after day? It's boring! Well, our bodies need variety too. If you always eat the same food or perform the same exercises, your body will get bored. If your body is bored, it stops adapting and falls into a predictable pattern, a rut. This is when your health will begin to deteriorate

A recent groundbreaking article in *Science* magazine titled, "Is it Healthy to Be Chaotic?" summarized this thought. "Healthy systems don't want homeostasis," said Ary Goldberger of the Harvard Medical School. "They want chaos." The term "chaos" here does not mean anarchy or total randomness as it might be commonly used. It is more appropriate to say healthy systems want to be "on the edge of chaos," somewhere between complete order and complete disorder. A more common-sense term for this might be "structured variety" – where the same patterns eventually get repeated but in different ways and also at different times.

The application of this theory to health is beginning to flourish. Researchers have coined the term "dynamical diseases." This is when the health of a system breaks down due to an overly ordered state. For example, epileptic attacks are caused by brain waves that are too even and constant. Normal, healthy brain waves exhibit a chaotic pattern. Other research on chaos and health is currently being undertaken with potential applications to Parkinson's disease, cancer, and even aging.

Why is it optimal for a system to be "on the edge of chaos"? What benefits would this confer? As for the human body, Goldberger argues that chaos provides the body with the flexibility to respond to various stimuli. As we will find out in the next section, humans evolved under a changing and unpredictable environment. Those who were able to survive this type of environment are the ones whose genes were passed along to next generation. For other systems, the same principle applies: when faced with an unpredictable environment, only a flexible and adaptive system will survive.

To summarize, complex adaptive systems like the human body have a vital need for variety. Without variety, a complex adaptive system falls into an overly ordered pattern and loses its dynamics. In English, variety keeps us healthy! Later, we'll discuss how to put sufficient variety into your eating and exercise habits.

Whew! Who thought getting lean and healthy was so *complex*? Hang in there, we're halfway done with the theory part. Now it's on to the **Stone Age**!

The Stone Age Environment

The previous section established that the human body is a complex adaptive system, and that it has a crucial need for variety. This section asks the question, "What type of environment did this system evolve under?" Every biological system evolved under some specific environment, and humans are no exception. When we learn about the environment in which humans evolved, we can discover the foods and activities for which we're genetically suited!

For approximately 2.5 million years, humans were hunter-gatherers (picture "cavemen" and "cavewomen"). As the name suggests, they hunted for meat and fish, or they gathered plant foods and nuts to eat. This period, often called the "**Stone Age**", is when modern humans evolved. And while many things have changed since then, our genes haven't! Genetically, we are over 99.5% the same as our Stone Age ancestors. The conclusion is that modern humans are suited for Stone Age foods and Stone Age activities. Finally, we have a theory that tells us **what** foods and activities are good for us and **why**. No more guesswork about what foods and activities might be good for us. Now, we have the blueprint – what was good for our Stone Age ancestors is good for us. Genetically, we are the same; we're just cavemen in modern clothes!

For example, there will never be a study that shows, "Vegetables are bad for your health". Never, ever! Why? Because vegetables have been a part of the human diet for millions of years, and they are agreeable to our genetic constitution. The same goes for the rest of the Stone Age foods – lean meat, fish, fruit, nuts, and berries – these are all healthy foods for us to eat.

Scientists have only recently explored this concept. A groundbreaking article in 1988 by Dr. Boyd Eaton entitled, "Paleolithic Nutrition" sparked plenty of scientific interest (the technical term for Stone Age times is the "Paleolithic era.") Since then, research continues to accumulate that eating Stone Age foods, and performing Stone Age activities is optimal for human health. If you want to be healthy, just do as our Stone Age ancestors did!

But what about bread, pasta, and other grain products - surely, these foods can't be bad for you? Doesn't the Food Pyramid tell you to eat 6-11 servings of breads and grains a day? Yes it does, **and it's dead wrong**! But to explain all this, we need to peek back into the Stone Age.

History 101

For over 2 million years during the Stone Age, humans lived as hunter-gatherers. Studies show that these people were lean, muscular, and relatively free of disease. About 10,000 years ago, agriculture developed, which allowed humans to stay in one area and for civilization to develop. Instead of living a nomadic hunting lifestyle, people could now settle down in one area and get their food from farming. These new foods included both grain and dairy foods. But when these hunter-gatherers settled down into farmers, their health suffered. For example, research shows early farmers lost bone strength as compared to the previous hunter-gatherers. Other research shows that the first farmers still preferred lean meat as a main source of food, and only consumed small amounts of grains when they had to.

Agriculture has now been around about 10,000 years, less than that in some areas of the world. This amount of time is just a drop in the bucket in evolutionary terms. Remember, humans were hunter-gatherers for 2.5 million years, and have only been consuming agricultural products for 10,000 years! The research into the human genome also spotlights this fact. DNA tests show we are over 99.5% the same as our hunter-gatherer ancestors. For optimal health, we need to eat the foods they ate, and perform the same activities they did.

It is stunning to many people that the foods they have been encouraged to eat by the government and various health organizations are bad for them. It's easy to see how food like ice cream, potato chips, chips, can be bad for you. But how can bread, pasta, rice, or milk be bad for you? C'mon, you must be kidding!

Unfortunately, these foods are unhealthy for you if consumed on a regular basis. The effects may not show up right away, but eventually they can cause serious health problems. Skeptical? Good. Check out the research of Professor Loren Cordain. Professor Cordain is one of the top experts in the world on "Paleolithic" or Stone Age nutrition. His recent book, The Paleo Diet, along with other research presents a mountain of evidence in favor of this type of diet. The modern diet containing agricultural products has now been implicated in host of health problems, from dermatitis to Syndrome X. Still not convinced? Read Dangerous Grains, a book by Dr. James Braly and Ron Hoggan. It presents the research connecting grain consumption with a range of conditions, including cancer, autoimmune disease, intestinal diseases, and many

others. STILL not convinced? Check out the web site, www.paleodiet.com. There's enough research and information there to keep you busy for months!

Unfortunately, most people do not know about the health problems that result from consuming agricultural foods. It's easy to see how eating modern junk food can be bad for you. Ice cream, candy, cake, greasy hamburgers, french fries, are all high in sugar and saturated fat, and quite bad for you (though they taste darn good!). However, most people have figured this out. However, most people do not know about the health problems caused by grain and dairy products, and they *should*. If someone knowingly makes a bad choice, that's fine – it's his or her prerogative. If someone thinks they're making a healthy choice due to misinformation, then that's not fine! A person should have all the available information when they are making choices about their personal health.

Above all, don't just take my word for it that all this is correct. I encourage you to study the research. **Stone Age Power** is true because it corresponds to reality. Unlike the people selling fad diets and junk exercise devices, I have nothing to hide. Therefore, I encourage you to be skeptical and think critically. Once you cut through all the fads and hoopla, the fact still remains that we are genetically the same as our Stone Age ancestors. For optimal health, we need to eat and exercise like these Stone Age people did. It's a simple idea based on our past, but it represents the *future* of health and fitness.

Synthesis

Now it's time to put everything together. We know that 1) the body is a complex adaptive system that thrives on variety, and 2) our bodies evolved during the Stone Age, and they are genetically suited to Stone Age foods and activities. Combining these two ideas gives you the total solution for health and fitness!

Variety was a part of daily life for our Stone Age ancestors. These hunter-gatherers faced variation in two important areas: calories consumed and calories expended. In other words, how many calories they ate each day, and how many calories they expended through activities each day.

It is easy to see that energy intake (calories consumed) would vary over time. Simply put, on some days hunter-gatherers were able to obtain more foods than others. While certain

foods could be stored and used over several days, this option wasn't always available. Their food intake would depend on a host of factors, including the season, their hunting prowess, and just plain luck. It would be rare that hunter-gatherers would eat the exact same number of calories from day-to-day. Instead, fluctuation of calorie intake was the norm.

There was also tremendous variation in energy output (calories burned) for our ancestors. Stone Age people worked harder some days than others (just like we do!). Some days were spent on the hunt for prey, while other days were spent idling in camp. If the men were on a hunt, there was no way of telling how long or strenuous it would be. The amount of daily activity also varied due to the environment. Some days the weather would dictate activity patterns, for example.

Of course, energy intake and energy output are linked. The more activity one performs, the more food is needed to replenish the body. But access to food was not always so easy for hunter-gatherers. If the men were unsuccessful on the hunt, they would have to make do with lower-calorie plant food. In other words, even if hunter-gatherers tried to match energy intake with energy output, they were not always successful. As you can see, variation was a part of life for the Stone Age people.

Initial Conclusions

The basics of this program are simple: Eat primarily Stone Age food. Exercise like our Stone Age ancestors. Employ variety in your eating and exercise patterns.

That's about it! You don't have to count anything, weigh anything, or engage in any bizarre practices. You just do what the Stone Age people did! And remember, our Stone Age ancestors weren't fat. Studies of modern hunter-gatherer societies show them to be very lean and in great cardiovascular condition. They are also free of the "diseases of civilization" – heart disease, cancer, insulin resistance, and many other maladies. Don't compromise your health. Follow the plan in this workbook and feel the Stone Age Power!

Summary of Key Points – Chapter 1

- The human body is a complex adaptive system
- Variety is crucial for the health of all complex adaptive systems
- The human body evolved during the Stone Age era
- We are genetically the same as our Stone Age ancestors
- We are genetically suited to eat and exercise like our Stone Age ancestors
- For maximum health, we need to eat Stone Age foods, perform Stone Age activities, and implement variety into these processes

Chapter 2

Eating

We know that Stone Age people were lean and muscular. So just what did these people eat? They consumed all the foods that are "naturally" available. Basically, if you can't pick it or kill it with a stick, it's not a Stone Age food! In general, their foods came from 4 basic categories:

- Meat
- Fish
- Fruits and Vegetables
- Nuts and Berries

Wow, this doesn't seem like a lot of choices when compared to the modern diet! Yet this is what the hunter-gatherers ate, every year, all their life. It is these foods that can unlock maximum health in the modern person. Just as important, notice what they *didn't* eat:

- Grains
- Dairy products
- Any processed foods (chips, candy, ice cream, etc.)

These are the foods that are killing us in the modern world. These foods will cause you to gain weight, and cause your health to deteriorate.

The Power of Stone Age Foods

Stone Age foods are good for us because these are the foods we are genetically built to consume. There is nothing special about these foods, so to speak. If humans had evolved eating grass and worms (yuck!), then those would be the foods that are healthy for us. However,

humans evolved on game meat and wild plant foods, so those are the proper foods for modern people. Meat, fish, fruits and vegetables, nuts and berries; these were the mainstays of human nutrition for millions of years

Most people know that foods can be broken down into three "macronutrients": protein, carbohydrate, and fat. Roughly, our hunter-gatherer ancestors ate these macronutrient percentages:

- Protein 19-35%
- Carbohydrate 22-40%
- Fat 28-58%

Source: Cordain L, Miller JB, Eaton SB, Mann N, Holt SH, Speth JD. Plant-animal subsistence ratios and macronutrient energy estimations in worldwide hunter-gatherer diets. *Am J Clin Nutr* 2000 Mar;71(3):682-92.

Meat and fish provided them with protein and fat, though these foods contain almost no carbohydrates. They obtained their carbohydrates from fruits and vegetables, which conversely, contain little protein or fat. Approximately 65% of their total calories came from animal products and nuts, while fruits and vegetables made up the remaining 35% of the calories. However, these figures are just averages. Some Stone Age tribes ate more animal products and less fruits and vegetables, while some ate the reverse. Climate was a factor, where the more tropical regions would provide more fruits and vegetables, and the colder regions would depend more on animal products.

These percentages represent a target to shoot for when duplicating the Stone Age diet. However, you won't have to count carbohydrates or anything else on this plan. By following the eating plan in this chapter, you will *naturally* consume the right amounts of macronutrients, and at the same time *naturally* lose weight.

The Problems with Modern Foods

Before looking at the right foods to eat, it may be useful to point out why modern foods cause problems. Eating agricultural and modern foods can cause trouble in two ways. First, they lead people to consume too many calories in general, which leads to weight gain and all the problems that goes along with that. Second, they dramatically increase our risk for various diseases and health problems.

When the Stone Age people switched to agriculture, by and large they did not get fat. Farming is extremely hard work, and they did not have the laborsaving devices we have in modern society. Although they didn't become overweight, they did become susceptible to many health problems. Agriculture provided many benefits to people – it allowed groups to stay in one place and for civilizations to develop. However, it came at the cost of personal health.

In the 1950s, all types of processed foods, such as pasta, cookies, and chips, became widely available and were heavily advertised. Not coincidentally, this is when a disproportionate number of Americans started gaining weight. This trend of more Americans becoming overweight continued into the 1970s and 1980s. In the early 1980s, most nutritional "experts" started promoting the idea that people were gaining weight due to a *high fat intake*. However, as we saw, the Stone Age diet was relatively high in fat, yet these people were very lean.

Regardless, the war on fat began, and it has certainly achieved a place in American consciousness. Businesses also jumped on the bandwagon, offering low-fat varieties of their products to consumers. Ultimately, the war on fat has been successful – in reducing fat, that is. The percentage of fat in people's diet *has* decreased over the last decades, but what are the results? Look around you, or look at the statistics: Americans are fatter than ever. Childhood obesity is increasing at an alarming weight. Six out of every ten adults are currently overweight. While the war on fat reduced fat in people's diet, it did nothing, or even made things worse for America's weight problem. If it's not the fat, then what's causing so many people to gain weight?

Excess Carbohydrates

The villain in this story is "excess" carbohydrates. First, look at what the average American is consuming in terms of macronutrients:

- Protein 15.5%
- Carbohydrate 49%
- Fat 34%

Source: National Center for Health Statistics, *The Third National Health and Nutrition Survey, 1988-94*. Washington, D.C., http://www.cdc.gov/nchs/

Compared to the Stone Age diet, Americans are consuming less protein and more carbohydrates. This difference in carbohydrates is a key factor in what's happening to Americans. Basically, our Stone Age ancestors had only two sources of carbohydrates: fruits and vegetables. Meat and fish contain virtually no carbohydrates, and nuts contain only small amounts. When Stone Age people ate fruits and vegetables and therefore carbohydrates, this process was "self-regulating". Due to the bulk and fiber of fruits and vegetables, you can only eat so many of them, and therefore you can only eat so many carbohydrates. With the advent of processed foods, you can now consume a massive amount of carbohydrates in a small, compact meal. For example, two cups of pasta contains about 80 grams of carbohydrate. To get that same amount of carbohydrates from fruits and vegetables, you would need to eat 7 cups of watermelon, OR 30 cups of broccoli, OR 80 cups of lettuce! That's a lot of eating! Processed foods effectively circumvent the body's method for regulating carbohydrate intake. When this excessive amount of carbohydrates is consumed, it leads to an excessive level of total calories. Voila! Now you've gained weight!

What about protein and fat? By and large, the body self-regulates the intake of these nutrients. It's only when these foods are *combined* with carbohydrates that problems result. Ever sit down to eat a stick of butter? No, but if you put butter on a high carbohydrate food, like bread or pasta, you can eat a whole bunch! If a food contains only protein and fat, like a plain chicken breast, it's difficult to overeat that particular food.

More on Excess Carbohydrates

Clearly, how much fat, protein, and carbohydrate you eat *matters* when it comes to gaining weight. The formula for weight gain is simple. When the number of calories consumed is greater than the number of calories expended over an extended time, a person gains weight. However, there is more to this story. The *type* of calorie consumed can also affect this relationship. It does so by affecting the body's hormone system. When excessive carbohydrates are consumed, it causes the body to produce more insulin, a hormone that regulates blood sugar. Since all carbohydrates are eventually broken down into sugar in the body, eating an excessive amount of carbohydrates floods the blood stream with sugar. To counteract this, the body secretes more insulin. However, an increase in insulin also signals the body to **store more fat**.

Research shows the importance of insulin and carbohydrates for weight loss. Studies have compared the effects of higher-protein, lower-carbohydrate diets versus higher-carbohydrate, lower-protein diets on weight loss. Even though the diets contained an equal number of calories, participants lost more weight on the higher-protein diets. It's not only the total amount of calories you're consuming that's important, it's also what kinds of foods you're eating that can determine your bodyweight. These facts explain the recent surge in popularity among low-carbohydrate diets. While these diets have many flaws, they at least remove much of the excess carbohydrate in the typical American diet.

The Stone Age Power Eating Plan

Enough of the talk, let's get down to some eating! First, we'll determine exactly what foods to eat, and second, we'll implement the crucial principle of variety into the diet. We know that hunter-gatherers ate meat, fish, fruits, vegetables, nuts, and berries. What follows is a list of specific Stone Age foods in these categories:

Lean Meats

Lean Beef

- Flank Steak
- Top Sirloin Steak
- Extra-lean Hamburger
- London Broil
- Chuck Steak
- Any other lean cut

Lean Pork

- Pork Loin
- Pork Chops
- Any other lean cut

Lean Poultry

- Chicken Breast
- Turkey Breast
- Game Hen Breasts

Eggs

- Chicken
- Duck
- Goose

Other Meats

- Rabbit Meat
- Goat Meat
- Any Game Meat
- Any other lean cut

Fish

- Any commercially available fish
- Any Shellfish

Fruits

- Apple
- Banana
- Blackberries
- Blueberries
- Cantaloupe
- Cherries
- Grapefruit
- Grapes
- Kiwi
- Orange
- Peaches
- Pears
- Pineapple
- Plums
- Raspberries
- Strawberries
- Watermelon
- All other fruits

Vegetables

- Asparagus
- Broccoli
- Celery
- Cauliflower
- Eggplant
- Lettuce
- Onions
- Peppers
- Spinach
- Turnips
- All other vegetables EXCEPT for any beans (green beans, black beans, etc.) and any starchy tubers (potatoes, sweet potatoes, and yams). The Stone Age people did not regularly consume beans and starchy tubers.

Nuts and Seeds

- Walnuts
- Brazil Nuts
- Cashews
- Chestnuts
- Hazelnuts
- Macadamia nuts
- Pecans
- Pine Nuts
- Almonds
- Pistachios
- Pumpkin seeds
- Sesame seeds
- Sunflower seeds
- Note: the peanut is a legume, not a nut, and was not regularly consumed by Stone Age people

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Adapted from: Cordain, Loren. *The Paleo Diet*. New York, John Wiley & Sons, 2002.

All these wonderful foods are available for you to eat! As you can see, the Stone Age diet contains plenty of food choices. While grain and dairy products and processed foods are noticeably absent, there are more than enough choices to fill you up and stimulate your taste buds.

Beverages

What about beverages? This category is an easy one. All Stone Age people had to drink was good ol' water! Water is the original and best way to quench your thirst and nourish your body. In order to be consistent, it's best to stick to water as your main beverage. There is plenty of research showing the health effect of water. There is also research showing that drinking fluids other than water is linked to various health problems, including heart disease. Make sure to get sufficient water in your diet, and cut down on other beverages.

Stone Age Foods – Now and Then

If you try to eat the exact same foods that the Stone Age people ate, you will still have to make adjustments due to some differences in modern food quality. One major difference is the kinds of fat that are consumed. There are three main types of fat: monosaturated fat, saturated fat, and polyunsaturated fat. Our ancient ancestors consumed a lot of monosaturated fat, and also moderate amounts of saturated and polyunsaturated fats. The modern diet, however, is heavy on saturated fat. There are documented links between saturated fat intake and heart disease, so one should focus on consuming the right fats. Part of the problem is that hunter-gatherers consumed this good balance of fats from some undesirable sources: the brains, bone marrow, and organs of the animals they killed. Since most of us aren't anxious to consume such delicacies, a different approach to obtaining the good fats must be used.

An easy method is to cook with quality oils. From a health standpoint, flaxseed oil, canola oil, walnut oil, olive oil, and avocado oil are all oils that contain "good" fats. Less desirable cooking oils include coconut oil, corn oil, and peanut oil.

Another difference in food quality is eggs. Stone Age people did occasionally consume eggs, but they were wild eggs, which are much different from the typical supermarket eggs. Fortunately, improved varieties of eggs called "Omega 3 enriched eggs" are being offered in supermarkets. Omega 3 fats are a type of polyunsaturated fat, as are Omega 6 fats. Research shows that our ancestors consumed a much different combination of Omega 3 and Omega 6 fats than that from the modern diet. Current research suggests that restoring this balance will lead to better health and a lower risk of heart disease.

Another difference is the quality of the meat that was consumed. One of the reasons meat has gotten such a bad reputation is its high fat content. For example, bacon gets over 75% of its calories from fat. Stone Age people consumed meat that was a good bit leaner than our current selections. When buying meat at the supermarket, stay with the leaner cuts.

A final difference is salt. Stone Age people did not salt their food. Excess sodium consumption is a factor for many health problems. Instead of salting your food, use spices or herbs to add flavor.

To summarize,

- Buy leans cuts of meat
- Cook in healthy oils
- If you like eggs, consume the "Omega-3 enriched" variety
- Replace the salt on your food with spices and herbs

Variation

Now that you know exactly what Stone Age foods to eat, the next step is to implement the crucial principle of variation. The Stone Age people faced three main types of variation in their diet:

- Variation of daily calorie intake
- Variety of food choices throughout the week
- Variation o food choices with the seasons

To keep our bodies healthy, we need to include these measures of variety in a modern Stone Age diet.

Vary your Daily Calorie Intake

Your body is not built to consume the exact same number of calories, day after day. It thrives on variation, and that includes variation in how many calories are eaten every day. Therefore, try to vary your daily calorie intake over the course of a week. This does not mean that you should pig out one day and starve yourself the next. But there should be some subtle variation in how many calories you eat each day. The body is always in flux, so on some days it will desire more energy intake than others. Hunger can often be your guide. If you are especially hungry or especially not one day, listen to your body. Don't force it to meet a preconceived standard. On days with more activity, you may naturally want to eat more. Feel free to do so, and also feel free to eat less when you're not hungry.

This step may lead people to consider an occasional fast. This may be useful, but only on very rare occasions. The evidence shows that Stone Age people did not face much starvation, as

some early researchers thought. When in need, they could always gather some plant food to tide them over. Regular periods without food were not a part of the hunter-gatherer landscape.

If one is still inclined to fast, it should be very infrequent and less severe in nature. Perhaps skipping dinner one night a month would be the equivalent of a rough period for a hunter-gatherer. Don't go overboard. Fasts are not necessary to lose weight on this plan. In fact, if you put the body in starvation mode for a few days it slows the metabolism, which brings weight loss to a grinding halt.

Vary your food choices throughout the week

Stone Age people ate a wide variety of foods. They ate many different types of meat, not just mainstays of beef and chicken as in the modern diet. They also ate a huge variety of fruits and vegetables. It's not only boring to eat the same foods every day, it's unhealthy! When you vary your food choices throughout the week, you able to take in a wider range of vitamins and minerals. Diets that are very narrow can lead to vitamin deficiency and other health problems.

It may also be wise to vary the amount of protein in your diet each day. When Stone Age people were successful on the hunt, they ate meat – in other words, protein and fat. However, if the hunters cam home empty-handed, everyone had to make due with plant food, which is primarily carbohydrate. Try to emulate this change in your own diet. There is some evidence to suggest that by constantly eating protein, at every meal day after day, puts a strain on the kidneys. By varying you're the protein content in your diet, you can avoid such potential health problems.

The body thrives on variety, and that includes all types of food choices. Modern hunter-gatherer tribes eat up to 100 different kinds of plant foods. Make it a point to try some new foods. A wider menu of food choices can lead to greater health and fitness. If you're a picky eater, set small goals such as trying one new food a week. A little bit of variation in your food choices can be a big boost to the way you feel!

Vary your food choices with the seasons

The final step is to vary your food choices with the seasons. For Stone Age people, they ate slightly more carbohydrates in the summer months, and less in the winter. This was because fruit was only available in the summer months, when it is naturally available. To be totally consistent with our Stone Age ancestors, foods should only be consumed when they're in season.

Is eating an apple in the middle of winter all that bad? Of course not, most of us don't get enough fruits and vegetables anyway. However, there is some evidence that the body "needs a break" from the higher carbohydrate intake of the summer, and uses the winter months to accomplish this. A lower carbohydrate intake during the winter allows the body to use more fat for fuel, and this can also lead to more weight loss. Studies show that Stone Age people naturally gained a few pounds in the summer, and then lost them throughout the winter months.

With the loss of fruit and a few vegetables in the winter, hunter-gatherers increased their intake of meat, fish, and nuts. This seasonal change might be one you should try to emulate. When it's summer, feel free to eat as many fruits as you wish. Then when late fall arrives, decrease your fruit consumption and increase your meat intake and vegetable consumption instead.

Sample Menu

Now it's time to see what this eating plan looks like in the flesh. What follows is a few days worth of modern Stone Age eating:

Day 1

Breakfast: Scrambled Eggs cooked in Olive Oil,

Lunch: Grilled Chicken Salad (the bigger the salad, the better)

Snack: Cashews

Dinner: Lean steak with Chopped Celery & Carrots

Day 2

Breakfast: Pot Roast with Spinach

Lunch: Turkey Breasts with Lettuce and Onion

Snack: Strawberries & Bananas

Dinner: Lean Pork Chops with Tomato

Day 3

Breakfast: Poached Eggs, Pecans

Lunch: Chicken Breasts with Tangerines

Snack: Watermelon

Dinner: Shrimp and Salad, Walnuts

These are countless ways that Stone Age meals can be constructed. The ideas listed here are just to get you started. A great source of modern hunter-gatherer recipes is available at www.paleofood.com. I encourage the reader to browse the website, and also to use his or her own tastes as a guide.

The real key is to make sure you have two components in each meal of the day: lean meat or fish, along with fruits and vegetables. The lean meat or fish provides your body with the necessary protein and fat. The fruits and vegetables provide the necessary carbohydrate. You cannot have just one or the other! The fruits and vegetables contain the bulk to fill you up. If you just eat meat, you will soon be hungry again. If you just eat the fruits and vegetables, you will not get the calories and nutrients necessary to keep your body strong.

The Long Run

It takes time to make changes to your diet – Rome was not built in a day. Once you are comfortable with eating Stone Age foods, implement the crucial principle of variety. Allow yourself to eat more on some days and less on others. Then begin to add some variety to your food choices. Expand your horizons and try some new and exciting foods. Finally, allow your diet to change with the seasons. Eat plenty of fruits and vegetables in the summer, and then increase your meat intake in the winter. Allow your diet and body to change with the seasons, as nature intended.

One important note: don't put the cart before the horse. For many people, eating primarily Stone Age foods and restricting foods from other categories is enough of a challenge. Work on eating the correct type of food, **first**! Then implement the different types of variation. Don't overwhelm yourself from the start. Strive to make the biggest changes first, and the smallest changes last.

Eating Plan FAQ

An eating plan with such a radical departure from the modern diet deserves a few more words. This diet has some exciting features, but some obvious questions come to mind. It seemed wise to point out some obvious questions:

1. Do I have to count calories on this plan?

No. The best thing about this program is that there is no "counting" involved – you don't have to count calories or any other unit. Stone Age people didn't count calories, so you don't have to either. When you eat the correct foods, it's almost impossible to gain weight.

2. Am I supposed to eat Stone Age foods 100% of the time?

No. Since this diet may sound Puritan in nature, there should be a discussion of "cheating" or falling off the eating plan. This plan represents an ideal, a way of eating that is from another time and place. These were the only foods available to hunter-gatherers, so it wasn't a matter of choice – it was a matter of survival. With the wealth in modern societies, the average person can afford much more in the way of food choices and food quantity. Unfortunately, this increase in prosperity has produced a diet for which we are ill-suited. With dietary temptation all around us, no one will make perfect eating choices 100% of the time. The idea here is to have a model of correct eating, and to follow it as best as possible. Changing one's eating patterns take time, and with time comes improvement. This is more of a marathon, than a sprint: there are ups and downs along the way, but if you keep pushing forward, eventually you will reach your

destination. More information about the psychology of weight loss will be discussed in Chapter Five.

3. How does this compare to popular low-carbohydrate diets, like the Atkins diet?

It's funny how the Atkins diet is only now getting scientific attention, although it's been around for 30 years. The Atkins diet has some good points, but not nearly enough for it to be recommended.

First, it does cut out many of the agricultural products that are unhealthy. By restricting carbohydrates, you naturally restrict foods like rice, pasta, and bread. Unfortunately, you also end up limiting quality carbohydrates – namely fruits and vegetables.

However, there are other, more important problems with the Atkins diet. The Atkins diet allows unlimited fat, and does not discriminate between good fats and bad fats. The Stone Age diet was lower in saturated fats as compared to either the Atkins diet or the modern US diet. The link between saturated fat and heart disease should lead one to be cautious about the types of fat consumed. Ideally, even though total intake of fat on the plan presented here is moderate, the intake of saturated fat should be relatively low.

Another problem is the sudden, dramatic decrease in carbohydrates when one starts a strictly low-carb diet. Research shows that people with normal insulin sensitivity do not fare well on a low-carbohydrate diet. Those with insulin resistance and its associated health problems may fare better on such a low level of carbohydrate. Regardless, Atkins is not the optimal approach to eating for anyone. It is not in accordance with our genetic roots.

4. Is it possible to be a vegetarian on this plan?

Not really. Humans were meat-eaters for millions of years. All Stone Age tribes ate at least some meat; none were strictly vegetarian. If you're committed to being a vegetarian, this is not the plan for you.

Summary of Key Points – Chapter 2

- **Eat primarily Stone Age food**
- **Vary how many calories you eat each day**
- **Vary your food choices**
- **Vary your diet with the seasons**

Chapter 3

Exercising

Our model of correct exercising will follow a similar path to the model of eating. First, we will find out what activities Stone Age people participated in, and then we'll implement the principle of variety. Whether you're talking about eating or exercising, it's still the same formula: Stone Age Environment + Variety.

So what activities did Stone Age people perform? These activities will fall into five main categories:

- Walking
- Hunting & Gathering
- Lifting and moving objects within camp
- Moving objects from one area to another
- Dancing

It is easy to see that Stone Age people would have to walk a great deal - the only means of transportation they had was their feet! Hunter-gatherers walked A LOT, as compared to the modern person. Researchers estimate hunter-gatherers walked approximately 12 miles a day! This large amount of walking illustrates an important point – Stone Age people didn't "exercise" in the modern sense. Most of the activities they did had survival value. They were not walking to "stay in shape", they were walking to secure their daily needs.

The second category of activity is hunting and gathering. Here, duties were primarily based on sex: men hunted, women gathered. The hunts would involve long walks, waiting, and then quick movements to catch the prey. If the hunt was successful, the prey had to be butchered and carried back to camp. If the hunt was unsuccessful, the men came back empty-handed and

were dependent on the plant foods gathered by women. The women gatherers walked for miles looking for food, and then would carry this food back to camp.

Stone Age people also had to lift or move heavy objects. With no labor-saving devices at their disposal, everything was done by the sweat of their brow. If some heavy stones needed to be moved, there was no machine to aid in the process. Strenuous lifting was definitely a feature of Stone Age life.

The next category concerns moving objects to and from camp. A person might have to carry water back and forth from a stream, for example. After capturing prey, the men would have to carry it back to the camp. Also, the camp itself would move from time to time. Stone Age people were somewhat nomadic, and the whole tribe would move its camp from time to time. These types of activities would all involve carrying objects over long distances.

The last category deals with recreation. Dancing was a major part of hunter-gatherer culture. Dances would happen several times a month, and sometimes last all night. It is no accident that dancing has survived into modern times. Dancing was an important part of Stone Age social life. It was a way to have fun, and also to look for romantic partners.

Modern Equivalents

Activities from the five categories can be transformed into modern activities. The first activity, walking, is still the same. We can walk around just as our Stone Age ancestors did. As mentioned earlier, they did **a lot of walking**.

Hunting and gathering can also be transformed into modern activities. Hunting involves long periods of walking, and then quick bursts of activity, such as sprinting and jumping. Then, if one is on the chase, sustained running is required. These activities can be mimicked by **interval training**. Interval training is, just as it sounds, short periods or intervals of high effort followed by longer periods of low effort.

The modern equivalent of gathering is **hiking**. When hiking, you carry a load over uneven terrain. This what the Stone Age people did when they gathered fruits, vegetables, and

nuts. We can also replace the lifting and moving of objects within camp with modern **strength training**. Lifting free weights is probably the closest to what the Stone Age people did.

Hiking can again duplicate moving objects from one area to another, such as moving camp. Finally, dancing is **still dancing**. Who knows exactly how the Stone Age people danced, but we can all dance and enjoy ourselves.

Therefore, a list of modern Stone Age activities to perform is the following:

- Walking
- Interval Training
- Strength training
- Hiking
- Dancing

There you have it - list of modern Stone Age activities! However, this seems like a lot of activity. The next section tells us how much exercise is <u>really</u> necessary for losing weight and staying healthy.

How Much Exercise?

Stone Age men typically hunted 1 to 4 nonconsecutive days a week. Women typically gathered 2 to 3 days a week. These activities had variable lengths. Sometimes a hunt would be quick and intense, other times it would be long and tedious. Gathering was probably a little more predictable time-wise.

On average, Stone Age people worked about 20 hours a week. The key is that the activity was "regularly intermittent", that is, there were intense days of activity followed by days of lighter activity. Dancing was a major recreational activity, often taking several times a month.

As far as walking, its importance cannot be overstated. A recent study shows that just 30 minutes of walking a day <u>significantly</u> reduces your risk of many diseases. Simply put, you should walk as much as you possibly can. Maybe you can park farther away in the parking lot at the store. (It's funny that the people I see "park sharking" in parking lots are the ones who could use some extra walking the most!) You can work extra walking in with easy ideas. Perhaps you can take the stairs instead of the elevator when you have a chance.

Interval Training

Interval training is best performed on foot, just as the Stone Age people did. One program, that has been verified by research as being very effective, is 20-seconds of effort, followed by 10 seconds of rest. You would then do 4-5 consecutive sets of work-rest. Other time variations work fine as well. You might run moderately hard for a minute and then rest 30 seconds.

For example, you would sprint moderately hard for 20 seconds and then rest for 10 seconds. You would then repeat this 4-5 times consecutively. When I say "sprint" here, I do not mean you have to perform like Carl Lewis. For those not used to strenuous exercise, just speeding up to a slow jog is enough for the work part. Give time for your body to adapt; don't burn yourself out in the first session!

Recent research shows that this type of aerobic training is better than traditional, even-paced exercise. Most of the activities performed by hunter-gatherers were "intermittent", that is stop-start activities. New studies show that intermittent exercise is more effective than traditional aerobic exercise for losing fat and cardiovascular fitness.

Don't go overboard with interval training. The idea is to have some brief periods of peak effort. When you exercise at a moderate, steady pace, your body never gets the chance to go "all-out". Occasionally, your body needs this, and interval training is a great way to provide it.

Strength Training

Strength training can be performed 1-3 times per week. Once per week is the minimum to hold onto muscle, and three times per week is the most anyone would want to do. Also remember that strength training is a very intense activity. If you're new to it, perform strength training exercises only once per week till your body adapts to the new stress.

As far as what exercises to perform, you should focus on "whole-body" movements. These are: deadlifts, squats, chin-ups, chest press, shoulder press, rows, and curls. The idea is to mimic the lifting a hunter-gatherer would do. Free weights are closer to how Stone Age people lifted than weight lifting machines. That being said, machines can be safer to use if you are new to weight lifting. If you're new to strength training, pick up any basic weight lifting book to

illustrate the various exercises. A few books are listed in the Suggested reading section in the back of the book.

There are enormous benefits to lifting weights. Most importantly, it allows you to hold onto muscle mass as you age. Losing muscle mass is dangerous because this will slow your metabolism. Of course, a slower metabolism makes it easier to gain weight. Weight lifting also floods your body with hormones that keep it young. Strength training is an essential part of any exercise program.

Hiking & Dancing

As far as hiking and dancing, it's up to you. Some people like these activities more than others. These are a bit more "fun" activities, so you can choose your own level of participation.

Variation

Now that we know what activities the Stone Age people performed, we need to implement the principle of variety. Variety will again come in three levels:

- Vary the amount of activity done each day
- Vary the types of activities done throughout the week (Vary the frequency)
- Vary the intensity and duration of the activities

Including variation at many levels will keep your body and mind fresh. Don't underestimate its importance; variety is crucial for long-term adherence. If you get bored with a program, no matter what it is, you will lose interest and eventually quit. Keep injecting variety into your exercise plans!

Vary the amount of activity done each day

This will happen naturally if you follow the Stone Age "work-rhythm" – 1 to 4 nonconsecutive days a week of moderately strenuous exercise. Other plans tell you to work out hard 5-6 days a

week. Don't do it! Your body was not made for hard effort, day after day. Allow your body to recover by alternating harder days with easier days. Occasionally, you might do a couple hard days in a row. That's fine, but then give yourself some extra time for recuperation.

Vary the types of activities done throughout the week

The more intense an activity is, the less often you can and should do it. Walking is a low-intensity activity, therefore you can perform it every day and for moderate periods of time. Activities like interval training and strength training are much more intense. Therefore, they should be performed less frequently, on the order of 1-3 times a week.

Hiking and dancing are somewhere in between. They are more intense than walking, but generally less intense than strength training and interval training. However, you can dance very intensely or hike very long distances with a heavy pack. How often you want to perform these activities depends on how intensely you perform them. Just use common sense in fitting these activities into your exercise program.

Other Activities

What about bicycling, or basketball, or other recreational? These activities may be fine if used infrequently. Ideally, they will not be your main focus in exercise. Non-Stone Age activities, if performed excessively, can cause physical problems and injuries. This is because the body is not designed for these activities. Just as squirrels are built for climbing trees, humans are built for walking, running, lifting, hiking, and dancing. Though people can perform other activities doesn't mean that they should.

For example, occasionally riding a bicycle poses no problems and can be beneficial. But bike riding day after day can produce problems for the body. Recent research shows a suspicious link between heavy bicycle riding and urinary and sexual problems. When the body is consistently put in "unnatural" positions, it will eventually break down.

Vary the workouts themselves

Whatever Stone Age activities you choose, don't do them the same way every time. For example, when strength training, don't perform the same exercises every time, week after week, month after month. For your interval training, don't do the same time length intervals, week after week, month after month. The same goes for walking, hiking, and dancing: sometimes make it short and sweet, other times take it long and slow.

Remember, Stone Age people would rarely be performing the exact same activities in the exact same way, day after day. The human body is built for variation at all levels. Don't fall into a rut by performing a predictable workout each time. This key ingredient of variation is often missing from modern fitness prescriptions. For example, a book might suggest 30 minutes of jogging 3 times a week. Stone Age people would never face such a predictable environment. Give your body the variety it needs to thrive.

Recent research shows a more varied exercise program produces better results. Particularly for weightlifting, "periodization", altering training intensity over time, has been shown to be superior to a non-varied approach. Variety in aerobic exercise will also keep you fresh and looking forward to your workouts.

One way to randomize your workout is the "roll the dice method". Here you assign a value to each number on a six-sided die. Perhaps the number 1 represents a very intense and short workout while the number 6 represents a long and leisurely effort. Numbers 2 – 5 might be somewhere in the middle. Before your exercise, you simply roll the die, see what number comes up, and do as the number indicates.

This is just one suggestion. You may, instead, want to listen to your body. When you're feeling great, go for a hard workout. When you're tired, take it easy and perform a less intense workout. But beware! Your body doesn't like to adapt unless it has to. Sometimes you have to push yourself to progress. There's no way around this one, sometimes you have to "just do it!"

Sample Plan

Here is a sample Stone Age exercise plan that will get you on the right track:

Monday: Walk 30-45 minutes
Tuesday: Strength train for 20 minutes, walk for 20 minutes
Wednesday: Walk 30-45 minutes
Thursday: Interval training for 20 minutes, walk for 20 minutes
Friday: Walk 30-45 minutes
Saturday: Walk 30-45 minutes, dance for 20 minutes (have fun!)
Sunday: A long hike through the woods

Exercise Plan FAQ

1. Should aerobic activity and strength training be performed on the same day?

Stone Age people did not separate the two, so most likely they were often combined together. You can perform both on the same day as a time-saver, in order to save yourself an extra trip to the gym. If you do this, still shoot for 1 to 4 nonconsecutive days of strenuous exercise a week.

2. There's not enough time for all this exercise!

Stone Age people had it a bit easier in this regard. Their activity was their job so to speak - they were physical laborers. Many people now have jobs that require very little activity, but also take up 40 hours a week. As far as fitting it all in, you don't have to do all the activities on the list. You can get great results with 1 day of strength training, 1 day of interval training, and 30-40 minutes of walking each day.

Remember, your genes expect you to be active. Your body is designed for movement. It doesn't care if you are busy with other things or not. If you want to be healthy, you need to

exercise – it's as simple as that. If you don't give your body the activity it needs, it will break down in the form of disease and other health problems.

3. What if I fall off track?

Then get back on! No one's perfect, we all have good weeks and bad weeks. One great way to keep yourself on track is by recording your results. Use a simple spreadsheet to track both your eating and exercise habits. The results will encourage you!

Key Points

- **Engage in Stone Age activities**
- **Vary the amount of activity done each day**
- **Vary the types of activities you perform**
- **Vary the workouts themselves**
- **Activity is what's normal for body; inactivity is not!**

Chapter 4

Lifestyle Factors

The way you eat and exercise will ultimately determine your success with this plan. However, other factors can influence your rate of progress. If you're following the Stone Age Power program and not making the progress you like, you might want to examine these other areas. Three important factors in weight loss and health are: sleep, sunlight, and stress (the 3 S's!).

Sleep

Stone Age people got lots of sleep. In fact, according to a recent article, modern day hunter-gatherers often complain about getting too much, not little sleep. Their abundance of time for sleep let them rest and recover, and gave them the energy needed to tackle each new day.

An obvious reason why Stone Age people got so much sleep is the natural cycles of daylight and darkness. Without electricity, the only light available for Stone Age people was fire. Hence, nighttime activities were limited to in-camp activities. In fact, with the long periods of darkness, hunter-gatherers often sleep in two segments: a few hours of sleep in the early evening, followed by an hour of awake time, followed by more sleep.

Of course, few of us have the luxury of using all the darkness hours for sleep and relaxation. The point here is that our genetic constitution expects a lot of sleep, and when that sleep is sacrificed, problems can result.

Scientific research also shows the importance of sleep for people. For example, studies show that lack of sleep can impair insulin function – not a good idea for someone trying to lose weight. Lack of sleep can also decrease the production of growth hormone, an important hormone that helps the body to recuperate and maintain muscle mass.

Most people know, intuitively, that they feel and function better on adequate sleep. It's just a matter of making it a priority. An occasional night of less sleep won't hurt anything. It's the continual sleep debt that will eventually impair your health. If you want to be healthy and fit, make sleep a priority in your life. A good book about sleep is listed in the Suggested Reading section in the back of the book.

Stress

Stress is a huge factor that can affect your level of health. Stress increases the body's level of cortisol, a hormone that destroys muscle tissue and encourages weight gain. Excess cortisol also weakens your immune system, leaving you vulnerable to colds and other illnesses.

Our Stone Age ancestors probably had lower levels of stress. Their average time spent working was about 20 hours a week, which leaves plenty of time for recreation and other nourishing activities. They didn't live in a 24/7 society that never sleeps; instead, they lived the equivalent of a lifelong camping trip, with plenty of time for leisure and reflection.

Certainly Stone Age people did encounter stress, but importantly, it was often of the brief and quick variety. If there were a problem, they would be apt to solve it physically and move on. They wouldn't have to move through layers of bureaucracy to get things done. Other chronic stressors of modern life, such as noise, traffic, crowding, were not a part of their lifestyle.

Stress also makes people crave carbohydrates. Carbohydrates contain serotonin, a chemical that produces feelings of well being. When people are stressed, they reach out for these "comfort foods" – candy, potato chips, ice cream, etc. – that give them a quick mood boost. Unfortunately, these foods can lead to even more cravings, and ultimately to weight gain.

Stress is another factor, like sleep, that people intuitively know affects their health. There are plenty of recommendations from health advisors to lower the stress levels in your life. Stress management classes are available in most cities. The bottom line with stress is simple: if you want to be healthy, you have to manage your stress levels. No one will do this correctly 100% of the time (who hasn't eaten something just to feel better?), but we can all improve in this area. Our health depends on it. A book on a cognitive approach to stress management is listed in the Suggested Reading section of the book.

Sunlight

Sunlight is an interesting factor in health. On one hand, health authorities tell us to avoid the sun, saying that overexposure to sunlight can lead to skin cancer. While this is true to some degree, it is not the whole story. Sporadic periods of heavy sunlight can lead to cancers, but primarily because that it involves heavy burning. Regular, moderate exposure to sunlight provides no such dangers.

Our Stone Age ancestors certainly didn't stay out of the sun. They exposed themselves to the sun, every day of every year. Most likely they were careful about this, though. With no sunscreen at their disposal, they would have to regulate their sunlight exposure. Modern day hunter-gatherers often avoid the hot, sunny part of the afternoons in summer, and instead do their outdoor work in the mornings or early evenings.

You may have read about SAD (seasonal affective disorder). This affects a small part of the population, but it gives telling signs about our need for sunlight. Studies show that phototherapy (exposing patients to artificial light) is effective in treating SAD. It appears that SAD is a direct result of lack of sunlight, not just the changing of the seasons.

The rest of us need sunlight, too. Exposure to sunlight allows the body to create Vitamin D, an important vitamin for avoiding many health conditions. The key is to expose your body to periods of sunlight on a regular, if not daily basis, just as the Stone Age people did. If you're stuck in an office all day, do what you can to get some sun: spend some time at lunch outdoors or take a walk after work. Like sleep and stress, sunlight is another factor that can dramatically affect your mood and health. Research shows sunlight also increases your sex drive, so your partner may benefit from your time in the sun as well!

Key Points

- **Balance your schedule to get enough sleep at night**
- **Work on improving your ability to handle stress**
- **Try to get regular, moderate sun exposure**

Chapter 5

The Psychology of Weight Loss

Understanding the "Why"

Now that you know *how* to lose weight effectively, it's important to talk about the "why." After all, there are many things we know we should do, yet we don't do them anyhow. What benefits do you get when you lose weight? There are two primary reasons why people lose weight: 1) to improve their health, and/or 2) to improve their appearance. Let's look at each of these two a little closer.

The first reason has obvious benefits, and also obvious costs if you don't lose weight. If a person's cholesterol levels are too high, for example, they will often change their eating habits and lose weight. The same goes for any other health problems. Unfortunately, people don't usually change their diet and exercise patterns until something does go wrong. The reason is simple and is important to analyzing your own behavior: people are more likely to respond to immediate consequences as opposed to long-term consequences.

The second reason has to do with appearance. One thing should be stated from the beginning: I don't believe people change their appearance "just for themselves" as is commonly written. They change their appearance for the benefits and attention they will receive from *others*. This may sound controversial to some, but it is an honest answer. For example, let's say you lived alone on a deserted island (like Tom Hanks in "Castaway"). Now let's say you gained ten pounds of fat. Would you care? Would you be upset? Would you immediately strive to lose these 10 pounds? If you reflect on these questions, the answers are most likely to be no. Why would you want to lose the weight, when no one can see you anyway? You would probably only control your weight when it became a hindrance to your daily activities, and affected your physical survival. Otherwise, you would have little reason to change.

Knowing this, you can devise a strategy to maximize the social benefits you get from losing weight. First, let's say that you are 15 pounds overweight. Now you lose a few pounds. Does anyone notice? Maybe your spouse or a close friend will notice, but no other significant social attention will come your way. And this is the problem – you work hard to lose a few pounds, but you don't get much social benefit for it. But let's say you lose 15 pounds, and achieve a very fit physique. Now you are most likely to gain substantial social benefits! Your spouse and friends will surely notice. New acquaintances might notice you are in top shape. In short, you will reap significant social attention for your fit physique.

This illustrates a curious principle: some people lack the motivation to lose weight because they set their goals too low. The social benefits of losing weight increase dramatically as you approach a very lean state. If you're 30 pounds overweight, and you can't get yourself motivated to lose 10 pounds, that's the reason why. In the end, you will still be 20 pounds overweight, and will not receive significant social attention for your weight loss. You would be better off going for the whole 30 pounds, where you will receive significant social attention for your accomplishment.

The same principle holds true for maintaining weight loss. If you're very lean, you have a lot of attention to lose if you gain some fat. Sure if you gain weight, you might still be relatively lean, but there are many more people who are relatively lean as opposed to very lean. It's the rarity of something that makes it valuable. This is why men with "six-pack" abs grab so much attention: it's very difficult to get so lean, so six-pack abs are very rare and valuable.

Clarence Bass, a former power lifter/bodybuilder and current fitness author, is a telling example in this regard. In his sixties, he has maintained a body fat percentage in the single digits (which is *very* lean) for decades. I have often wondered to myself, "how can he keep himself so motivated over the years?" The answer is he has a lot to lose if he doesn't. He could not maintain his credibility and popularity if he became overweight. In fact, his business is called "Ripped Enterprises". And of course, people would be skeptical of his products if he himself was not "ripped"(a bodybuilding term meaning "extremely lean"). In this way, Clarence Bass has set himself up for a lifetime of motivation to be very lean. Becoming overweight would be very

costly to him and his business; staying lean allows many social benefits and attention to come his way;

Costs and Benefits

The best thing about this program is that you can achieve a lean physique without hunger. This is the beast that destroys most diet plans. If you're always hungry, eventually you will give up and eat. No one's willpower is everlasting. Many people can achieve a lean physique in the short term by simply cutting their calorie intake. However, that only works for so long. As many people know, the weight usually comes back, sometimes leaving you heavier than before you started.

The big key is the bulk provided by the fruits and vegetables in the Stone Age diet. Recent research has uncovered a curious fact: **people eat about the same weight in food each day**. This is really a remarkable finding. If the total weight of food is what satisfies the appetite, then the obvious solution is to eat heavier, denser foods. This is where the role of fruits and vegetables are so crucial. For example, weigh a large apple. Now weigh a typical breakfast muffin. Which one weighs more? The apple, and it will fill you up much more than the breakfast muffin. By eating fruits and vegetables at each meal, you can keep hunger at bay and easily lose weight.

Although this plan is without hunger, it is not without costs. You will not be able to eat many foods on a regular basis. You will have to pass on your favorite fast-food restaurant more times than you would like. You might have to bring your lunch to work in order to eat the correct foods. You might have to bring some Stone Age food with you on trips. In short, achieving a lean physique takes *work*. As with any decision, the benefits should outweigh the costs. That is why I encourage you to set you goals high, to aim for a lean physique. Big goals produce big motivation; use this to your advantage.

In a sense, you are using your lean physique to differentiate yourself from the pack. Back in Stone Age times, everyone was lean so it was not a special accomplishment. In contrast, in modern society, increasing numbers of people are overweight. A lean physique is now an accomplishment. Go to any shopping mall and observe what percentage of people is very lean; it's not very high.

Use your lean physique to stand out. Everyone likes to have distinctive personal characteristics, let this be one of them for you. Your physique can be one of your "trademarks", where for example, each year you show up for Thanksgiving dinner looking lean and trim. The power of social attention cannot be overstated. Use it to your advantage.

Working with Others

Along with your individual success, you can also gain from helping others. That's why having a weight-loss partner can be so effective – you can both inspire each other to succeed. If you want to lose weight, it may help to be part of a social effort to do so. Maybe it could be you and your family, or you and a few friends. Whatever the case, the more people the better. Other people give your actions a reflection, and make them seem more real. Feedback from others, in any form, is a big part of any weight loss effort.

If you read about people who have succeeded in losing weight, they often want to help others achieve the same goal. Importantly, helping others to lose weight is a great way to keep **yourself** in shape. If you know your example is helping and inspiring others, you will work hard to keep your own diet and exercise plans on track.

Stay Public

As people age, and especially as they marry and have children, they often tend to be involved less and less in public events. There can be the tendency socialize with a small group of people, instead of a variety of social contacts. All this can work against the need to reap social benefits from your healthy physique. In order to combat this, remember to put your physique out there from time to time. For example, even if you don't swim, try to take a trip to the local pool each summer. There's nothing like swimsuit season to provide some additional motivation. Remember, if no one sees your physique, you can't get any social benefits. Don't be afraid to wear snug-fitting clothes, either. After you've achieved a lean physique, make sure to display it; you've done the work, and you should be the one to reap the rewards.
Remember the example of Clarence Bass. Over the age of 60, he's still sporting an extremely lean physique. Why? He stays public, not the least of ways by posting photos of himself on his

web site (www.cbass.com). Use this lesson, and try to stay in the public sphere somewhat as you age.

Key Points

- **Use social attention to lose weight**
- **Construct a daily eating pattern that allows you to lose weight without hunger**
- **Remember to "stay public" and also work with others to keep your motivation high**

Chapter 6

The Down 'n Dirty Guide to Getting In Shape

If you've read everything in this book, but want to know exactly what to do next, this chapter is for you. It presents the plan in its simplest form, with a few levels to choose. There are three progressive phases; choose the one best suited for your needs.

Phase 1 - For those who are not currently exercising, and whose diet could be best summed up as "a disaster".

Phase 2 - For those who participate in some kind of activity on a regular basis, such as walking, and for those who make moderate attempts at a "good" diet.

Phase 3 – For those who are used to exercising, often in a strenuous manner, and for those who have good control of their diet.

Phase 1

Phase 1 gets a person heading down the right path towards health. The focus here is mainly on walking and making dietary changes. Too many people bite off more than they can chew when trying to lose weight. It is far better to take baby steps in a positive direction than to try a radically ambitious plan and burn out. By focusing on light exercise and better dietary choices, a person can make feel better each day and continue to make solid progress.

Eating:

Start replacing your "regular" meals with Stone Age meals

Everyone changes in different ways and at different rates. If you are ready to radically overhaul your diet, great, let's get started! Start throwing out the grains and dairy products, and start filling you shelves with lean meat, fish, fruits and vegetables, and nuts. There is no time like the present!

If you're a bit timid about all this, take your time in making the changes. Make some changes and see how your body responds. As you begin to feel better and lose weight, you will want to make more changes. This being said, remember the lessons from the Chapter 5: you get the most social benefits when you approach a very lean state. If you aren't committed to changing your eating habits, you will see minimal results and probably quit. Don't be afraid to go for the gusto! Go for a big weight loss to get large amounts of social attention and benefits. Don't worry too much about implementing variety at this point. Focus mainly on consuming Stone Age food as opposed to non-Stone Age food.

Exercise:

Walk 30-45 minutes each day.

Walking was hunter-gatherers only means of transportation. It was part of their daily routine, and should be part of yours. Also, the walking doesn't have to be all at one time. Three walks of 10 minutes gives you the same benefits of a 30-minute walk.

Strength train 1 day a week.

Strength training is important for holding onto your body's muscle as you lose fat. And only one day per week is necessary to do that. Research shows that short, infrequent training is

effective in retaining muscle mass and strength. Do a short whole-body workout using primarily free weights. Perform the exercises discussed in the exercise chapter: squats, chest presses, chin-ups, bicep curls, deadlifts, and shoulder presses. Remember to add some variety to your strength training.

Phase 1 can change your physique in a big way. You do a minimum amount of exercise, and use your diet to shed pounds. The Stone Age diet is a powerful way to lose weight. In fact, you may find that you have no desire to ever move to Phase 2. If so, that's fine! As long as you are losing weight and feeling great, stick with Phase 1 as long as you desire.

Phase 2

Phase 2 allows you to increase your levels of health and fitness even more. It, of course, demands a slightly bigger commitment but provides more benefits. It consists of the following:

Eating:

<u>Continue to eliminate modern food and add in Stone Age food.</u>

The idea here is simple: continue to eliminate foods your body is not suited. This will help you move closer to a very lean physique. It may also help in many other health problems and ailments.

<u>Implement variety in your daily calorie intake and your food choices.</u>

Begin to focus more on two key components of variation discussed in Chapter 2: variation in daily calorie intake throughout the week, and a variety of food choices. Allow your hunger to be your guide instead of forcing yourself to eat meals at a certain time, or a certain amount of food each day. Try to work some new food items into your diet. Begin experimenting with different types of meat, and also with eating various fruits and vegetables.

Exercise:

Walk 45-60 minutes a day.

This step continues to emphasize the heavy amount of walking done by hunter-gatherers. Again, walking can be spread throughout the day.

Participate in other Stone Age activities 1-2 times a week.

Select aerobic activities other than walking and add them to your routine. Pick from the Stone Age activities discussed in Chapter 3: interval training, hiking, and dancing. Aim for two aerobic workouts a week. They should be on nonconsecutive days, and it does not have to be the same activity each time.

Increase strength training to twice a week.

You can either perform 2 whole-body workouts each week, or split muscle groups over the two days. If you choose the whole-body routines, *do not perform the exact same workout both days.* Stone Age people would never have two "workouts" that were very similar. Mix up the exercises if you can. Also, change the lifting speeds and the number of repetitions.

If you choose to split muscle groups, the most convenient system is to work your upper-body one day, and work your lower body the next. Add some variation in from one week to the next on these exercises.

With either choice, one should be careful not to get overtrained. Weight lifting is much more intense than aerobic activity. Don't overwhelm your body with extra heavy weights and long workouts. Stone Age people did not spend hours at a time lifting objects. They lifted what they had to, and nothing more. Make sure your workouts are quick. Get in the gym, do your workout, and then head for home.

Phase 3

Phase 3 is for the person that wants to make the ultimate commitment to the Stone Age lifestyle. All elements of hunter-gatherer diet and activity will be duplicated as best is possible in the modern world.

Eating:

Try to eat almost all Stone Age food.

I would say 100%, but that's not very realistic unless you are an actual modern hunter-gatherer, and hence, you would not be reading this book. Eating almost all Stone Age food is a tremendous accomplishment in the modern world. Advertisers pummel us with visions of sweet, sugary foods. Fast foods restaurants are on every corner. Staying disciplined with all the stresses of modern life is often quite difficult.

Implement all types of variety in your diet.

At this point, variety should be a cornerstone of your diet. You should be consuming a wide variety of fruits and vegetables, and also different types of meat, fish, and nuts. Your daily calorie intake should fluctuate along with your appetite and activity levels. You may also want to do an occasional "night-fast", where you just skip dinner and go to bed on an empty stomach. This may reenact the very infrequent times when hunter-gatherers ran out of food.

To be totally consistent with your Stone Age ancestry, eat foods only when they are naturally in season. For example, many fruits are available only in the summer months and should not be eaten the rest of the year. A listing of when foods are in season is available at: http://www.nutrition.cornell.edu/foodguide/lists.html.

Exercise:

Walk as much as you can.

It is unlikely you will be able to walk as much as our hunter-gatherer ancestors did due to the demands of modern living. But in addition to planned daily walks, you can get moving in other ways. Parking your car further out in the parking lot is a sneaky way to get some extra walking in. You can also take the stairs instead of the elevator or escalator. On weekends, you might try a very long walk when you have the time.

Increase the level of your aerobic activities and strength training.

This does not mean performing the activities more often, necessarily. It means performing them in more of a Stone Age fashion. First, you might want to randomize the frequency of your training. This means on some weeks you might exercise strenuously 2-4 times, while on other weeks maybe once or even none. Hunter-gatherers did not have a set schedule, and sometimes individuals took entire weeks off. Remember to give yourself a break from time to time.

You should also be implementing more variety into the individual training sessions. Try to imagine the conditions Stone Age people would have faced. When you are doing interval training, imagine hunting for game and act accordingly. Get in a crouched position, and wait for your "prey" to appear. Then, take off on a quick sprint with some twist and turns! Perhaps add a leap in at the end, as you would lunge for the capture. People may think you are crazy, but so what!

On some weekends, you may want to go for a long hike with a backpack. This could represent the times when hunter-gatherers moved camp. Also, hiking through hills and valleys better represents the savannah where Stone Age people lived. The completely flat land of many neighborhoods is not what our bodies expect.

Keeping the Weight Off

While this chapter shows you how to lose weight and get healthy, you may also wonder about keeping the weight off after you've lost it. A recent study gives us an interesting answer to this question. After a group of women had lost weight through dieting, they were allowed to eat their normal foods and exercise how they wanted. Groups that averaged 150-200 minutes of exercise per week gained weight back over the following 6-18 months. However, those that averaged 280 minutes of exercise week were able to maintain their weight loss. This gives us a nice, scientifically proven number to aim for: 280 minutes a week of exercise. This doesn't all have to be intense exercise, most of it can come from walking. Use the plan from this chapter to create a schedule that will give you 280 minutes a week of exercise a week. That's averages out to about 40 minutes a day. Walking for 30-40 minutes a day, along with some resistance training and aerobic exercise throughout the week will nicely fit this bill.

GOOD LUCK AND GOOD HEALTH!!!

Suggested Reading

Bass, Clarence. *Challenge Yourself*. Ripped Enterprises, Albuquerque, NM, 2000. This book shows that a minimal amount of exercise, along with a proper diet, goes a long way.

Burns, David. *Feeling Good, The New Mood Therapy*. New York, Avon Books, 1999. A wonderful book that gives many practical techniques to improve your mood and manage your stress levels.

Cordain, Loren. *The Paleo Diet*. New York, John Wiley & Sons, 2002. A great book that presents plenty of data supporting Stone Age eating.

Faigin, Rob. *Natural Hormonal Enhancement*. Extique Publishing, Cedar Mountain, NC, 2000. For the more scientifically minded, this presents a thorough review of many dietary fallacies.

Rolls, Barabara and Barnett, Robert. *Volumetrics*. New York, HarperCollins Publishers, 2000. Emphasizes the role of fruits and vegetables for satisfying your appetite.

Schwarzenegger, Arnold, and Dobbins, Bill. *Arnold's Bodybuilding for Men*. New York, Fireside, 1984. Good for women as well, this book introduces basic weight training.

Wiley, T.S. and Formby, Bent. *Lights Out*. New York, Simon & Schuster, 2000. A provocative book that shows the importance of sleep for health and weight control.

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