Evolution of the Unhealthy American

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Evolution of the unhealthy American

We’re a fat unhealthy nation.

How did we get here?

What’s the answer?

Michael S. Furci

“What lies in our power to do, lies in our power not to do.”

- Aristotle

I would like to dedicate this book to Corinne, a daughter that would make any father proud, and who never ceases to amaze me. And to Catherine, my soulmate, whose support and love is never ending and unconditional; whose encouragement has helped me grow in such a positive way.

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Preface

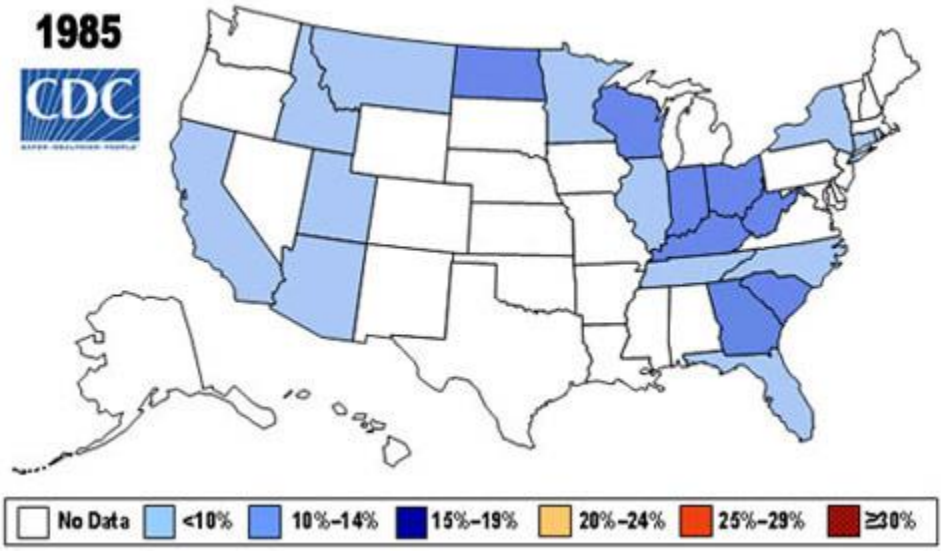
I decided to write this book to present readers with a broad overview of the obesity epidemic, it's root causes, and what individuals can do about it. I have spent the vast majority of my life building upon my interests in nutrition. Human health and performance has always fascinated me; what has a more profound effect on us than nutrition? Unfortunately, there is a grossly disproportionate amount of misinformation available regarding proper nutrition and health, is due to the food and edible oil industries blatant disregard for public health for ever increasing profits. Our modern food supply, which makes up most of the inventory of the average grocery store, has been destroyed. Americans now consume faux food. It may taste like food and smell like food, but is devoid of any real nutritive value and contains ingredients that are toxins. I believe this book will be of great value to those interested in the truth about the Evolution of the Unhealthy American and what to do about it.

We're a Fat Unhealthy Nation

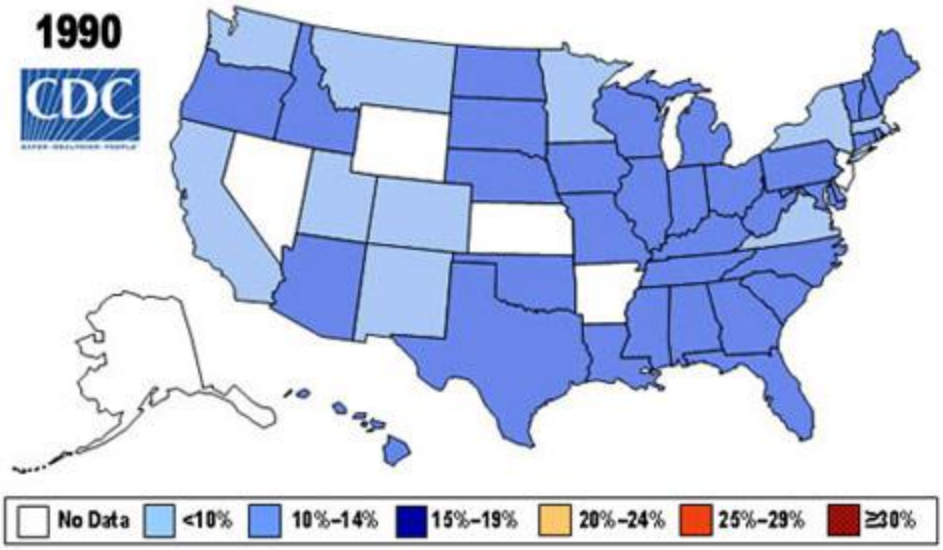
An alarming rise

Obesity and its related health problems have reached epidemic proportions in the United States. For visual proof, just spend some time at the mall or other high traffic areas. But how did America get here in the first place? The rise in the prevalence in overweight and obese individuals started in the mid-70s, with a striking increase beginning in the mid-80s

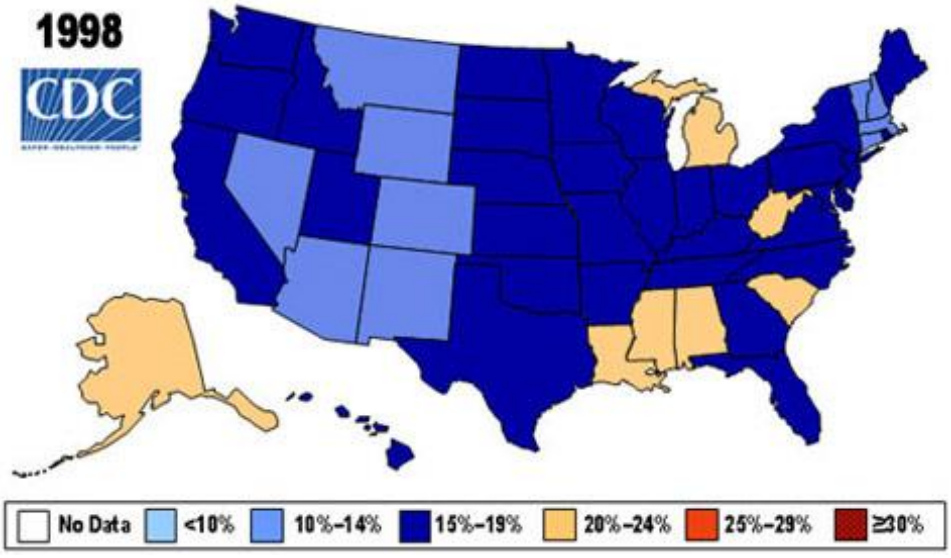
U.S. Map graphics courtesy of CDC.gov.



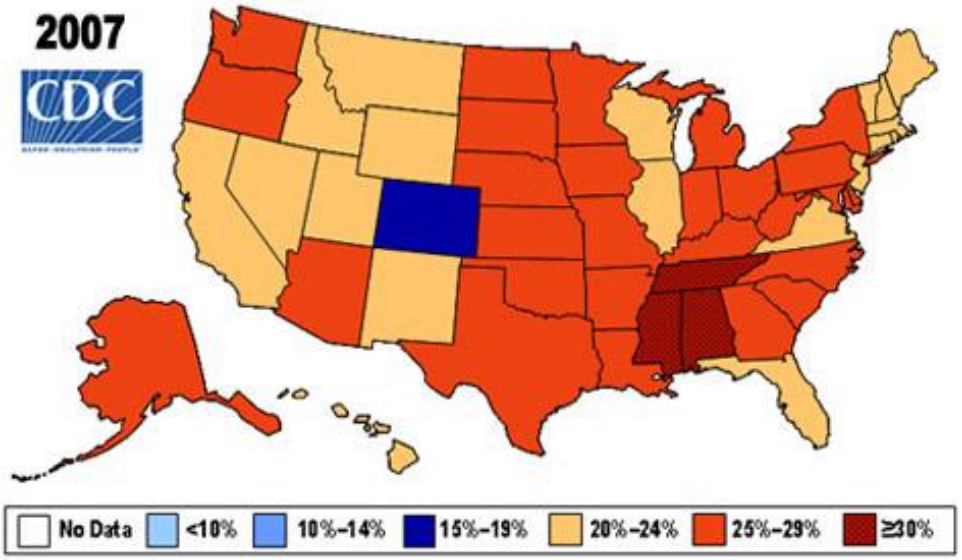
As illustrated in the above graphic, in 1985, 12 states had a prevalence of obesity less than 10 percent; eight states had a prevalence between 10 percent and 14 percent; and no states reported a prevalence of 15 percent or higher.



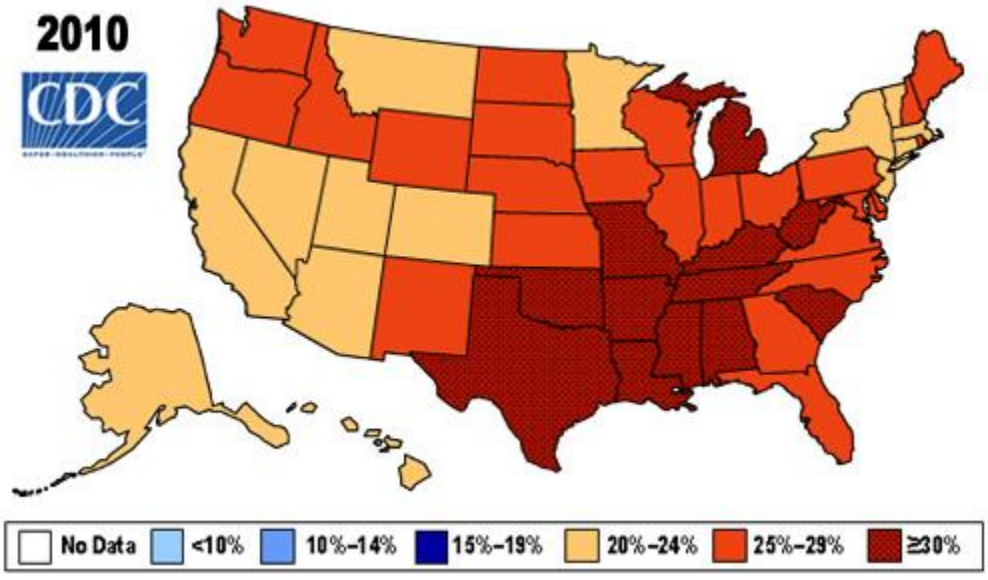
In 1990, 10 states had a prevalence of obesity less than 10 percent; 34 states had a prevalence between 10 percent and 14 percent (a 425 percent increase in 5 years); and no states reported a prevalence of 15 percent or higher.



In 1998, not one state had a prevalence of obesity less than 10 percent; seven states had prevalence between 20 percent and 40 percent. Just eight years earlier, not one state reported a prevalence greater than 15 percent. However, at least no state had a prevalence equal to or greater than 25 percent in 1998.



In 2007, only *one* state (Colorado) had a prevalence of less than 20 percent. Thirty states had a prevalence equal to or greater than 25 percent; three of these states (Alabama, Mississippi, and Tennessee) had a prevalence of obesity equal to or greater than 30 percent. Just nine years earlier, not one state had a prevalence greater than or equal to 25 percent.



Just three years later, not one state reported a prevalence under 22%, and ten more states were greater than 30%. Just twenty years earlier, not one state reported a prevalence of above 15%, and ten states were below 10%. The speed at which the obesity epidemic occurred is truly startling.

According to two National Health and Nutrition Examination Surveys (NHANES), the prevalence of obesity for adults between the ages of 20 and 74 increased from 15 percent in the 1976 – 1980 survey, to 32.9 percent in the 2003 – 2004 survey. These same surveys also showed the number of adults considered to be overweight increased from 47 percent to an astounding 66.2 percent, with the sharpest swell in overweight and obesity occurring in the '90s. Thankfully, there seems to have been a leveling off of obesity rates since 1999, with no significant change between 2003 and 2006 for either men or women. However, despite this leveling of obesity rates, two-thirds of the people in the U.S. remain overweight or obese, and this is unacceptable.

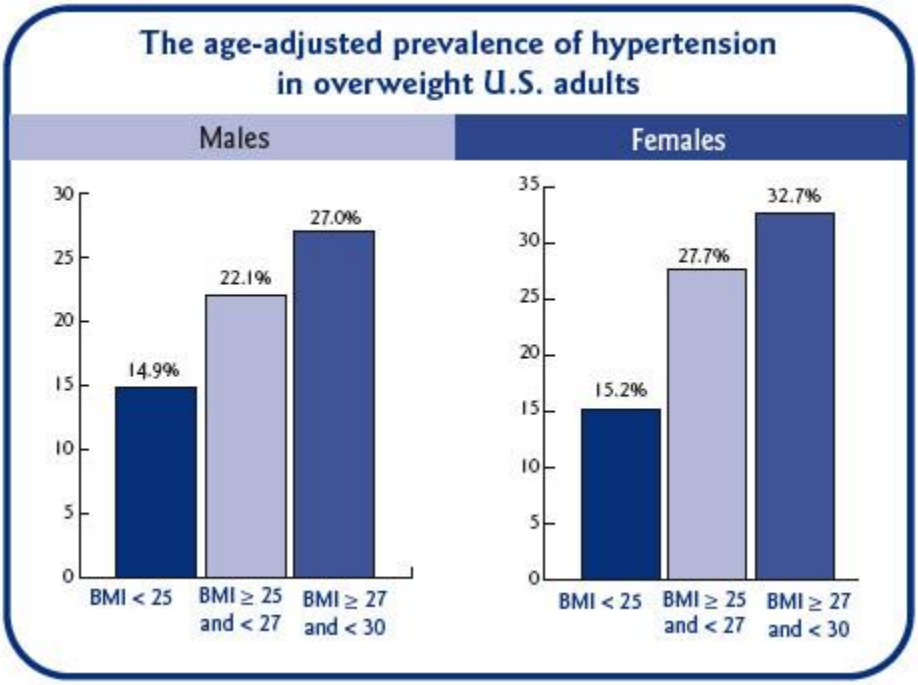
The number 2 preventable cause of death and climbing

Overweight and obese individuals are at an increased risk for many physical ailments, many of which result in disability and death. (3)

- High blood pressure, hypertension
- High blood cholesterol, dyslipidemia
- Type II (non-insulin dependent) diabetes
- Insulin resistance/glucose intolerance
- Hyperinsulinemia
- Coronary heart disease
- Angina
- Congestive heart failure
- Stroke
- Cholecystitis (inflammation of the gall bladder) and cholelithiasis (gallstones)
- Gout
- Osteoarthritis
- Obstructive sleep apnea
- Asthma
- Some types of cancer (endometrial, breast, prostate and colon)
- Complications of pregnancy including: gestational diabetes, gestational hypertension, preeclampsia and complications in operative deliveries (i.e., c-sections)
- Poor female reproductive health (menstrual irregularities, infertility and irregular ovulation)
- Bladder control problems
- Psychological disorders like depression, eating disorders and low self esteem

Compared to individuals with normal weight, those who are overweight and obese are significantly more likely to be associated with diabetes, high blood pressure, high cholesterol levels, asthma, arthritis and fair to poor health.

The primary physical effects of being overweight, besides being cumbersome, are cardiovascular disease (CVD) and type II diabetes. Hypertension increases as one becomes heavier, and is an independent risk factor for CVD. "Obese persons are six times as likely to have hypertension as compared to lean adults. These increases in hypertension translate into a 12 percent increased risk of coronary heart disease (CHD) and a 24 percent increased risk for stroke" (Circulation, 2006) The relationship between diabetes, CVD and being overweight and inactive are nearly inescapable.



Diabetes comes with the territory. Data from the Centers for Disease Control (CDC) shows that more than 80 percent of people diagnosed with Type II diabetes are overweight or obese. The heavier you are, the higher the risk. And according to the American Heart Association, 75 percent of the people who have diabetes die from some form of CVD. Other problems associated with Type II diabetes include nerve damage, kidney damage, blindness, lowered immunity, osteoporosis and Alzheimer's.

In the early 1900s, people with clogged arteries at any age were very rare. Most physicians during this time never witnessed a heart attack during their practice, and those trying to study cardiovascular disease had to search the country for patients.

By the mid-'50s, CVD became our number one killer, and it remains the leading killer today. It was around this time that the lipid hypothesis started to gain popularity. The lipid hypothesis, which was proposed by Ancel Keys in the late '50s, is a theory claiming there is a direct relationship between the amount of saturated fat and cholesterol in the diet and the incidence of CVD.

This year 2200 Americans will die of CVD each day, which equates to one person every 39 seconds. Over 82 million people, or more than 25 percent of the U.S.' population, has one or more forms of cardiovascular disease. In 2008, CVD mortality was nearly 55% of "total mortality" in the U.S. That means that out of more than 2.4 million deaths from all causes, CVD was listed as a cause on almost 1.4 million death certificates. (6) CVD causes more deaths than the next seven causes combined. It's safe to say that CVD had a meteoric rise from the 1930s to the 1950s to become number one, and to this day the incidence is still increasing to a great extent because of our expanding waistlines.

As a result of the inherent health risks, and the increasing number of obese individuals, obesity is the number two preventable cause of death in the United States. In 2000, obesity accounted for 365,000 deaths, which is 16 percent of all deaths. Tobacco, which is still the number one preventable cause of death, accounted for 435,000 deaths, or 18 percent of all deaths. And according to the study, the gap is narrowing. In 1990 obesity caused about 300,000 deaths, or 14 percent of the total, with tobacco causing 400,000 deaths, or 19 percent. If this trend continues at the same rate, obesity will soon reach the number one spot.

Unfortunately, the inherent health problems aren't the only aspect of obesity that causes concern. Being overweight and obese has a significant economic impact on our health care system, with both direct and indirect costs. Direct costs may include prevention, diagnosis and treatment services like doctor visits, hospital and nursing home care. Indirect costs relate to morbidity and mortality. Morbidity costs are the value of wages lost from decreased productivity, disability, and absenteeism. Mortality costs are the total value of future income lost by premature death.

The Surgeon General's "Call to Action to Prevent and Decrease Overweight and Obesity," updated January 2007 states, "in 1995 the total (direct and indirect)

costs attributable to obesity amounted to an estimated $99 billion. In 2000, the total cost was estimated to be $117 billion ($61 billion direct and $56 billion indirect). Most of the expenses associated with obesity are due to Type II diabetes, CHD, and hypertension."

Fortunately, for our physical as well as economic health, the incidence of obesity among adults has statistically leveled off in recent years. We can only hope we've reached the peak of this trend and are on the downward side. Unfortunately, as the trend appears to have come to a crest with adults, it may continue to increase through our youth, according to the Centers for Disease Control and Prevention (CDC). Here is the situation:

- In 2005, only 33 percent of adults consumed fruit two or more times per day, and only 27 percent consumed vegetables three or more times per day. (Consumption of fruit juice and soda pop, which are essentially the same, are on the rise, while milk and vegetables are on the decline)
- Despite the proven benefits of physical activity, fewer than half of American adults in 2007 engaged in enough physical activity to provide health benefits. (Shouldn't adults lead by example? Many parents are neglecting their children's health by leading unhealthy lifestyles.)
- Estimates suggest that since 1994, the overweight trend in youths has not leveled off as in adults, and is increasing to even higher levels. The 2003-2004 CDC findings for children and adolescents suggest another generation of overweight adults.

- It has been shown that 80 percent of children who are overweight at aged 10 to 15 years were obese adults at age 25 years.

- In 2004 more than a quarter of the children born were never breastfed. Breastfeeding is associated with a reduced risk for obesity amongst other health promoting benefits.
- The percentage of young people who are obese has tripled since 1980!
- More than one-third of adolescents in grades 9 to 12 had a soft drink (not diet) at least one time per day during the previous seven days. **(Soft drinks are almost exclusively sweetened with fructose or HFCS.)**
- In 2007, 65 percent of young people in grades 9 to 12 did not get the recommended amount of physical activity; 35 percent watched TV for three or more hours on the average school day.
- 70 percent of obese children between the ages of five and 17 have at least one CVD risk factor, while 39 percent had two or more!
- Type II diabetes, which used to be referred to as adult-onset diabetes, is now begun to emerge as a health-related problem among children and adolescents!

How bad does somebody's health and or their children's health have to get before they wake up and do something about it?

Our Deteriorating Diet

The evolution of an epidemic

So it's obvious we've become a fat, unhealthy nation. But, what caused our weight gain and its inherent health risks? Many self proclaimed experts make statements like, "Americans are eating too much.", or "It's just a matter of calories in versus calories out." But is it really as simple as reducing the amount of food we eat, exercising more or both? Are we really eating too much, or is it what we're eating? Do man-made substances in our food really make a difference in our ability to maintain a healthy weight? Most importantly, what can we do for ourselves and our children to ensure a healthy life?

Because the weight loss market is so big, the race is on to find that magic pill, drink, herb, drug or exercise program that melts the fat off. Some researchers claim they have found a fat gene, and a few others are even claiming obesity may be contagious. These claims would be great news for those who want to shrug the responsibility of being fat on being beyond their control. Overall, in the real world there are a variety of factors that play a role in people becoming overweight, obese and unhealthy. Multiple factors are what makes getting leaner and healthier, such a complex issue to fix. Or is it?

Now, I think it's indisputably obvious, that if you are a chronic overeater and sit on your duff all day, weight gain, obesity and dire health will be your fate. Over-consumption of food, especially the wrong food, coupled with inactivity will definitely increase your chances of being overweight and acquiring the inherent health risks. Yes, there are those who are genetically predisposed to gaining weight easier than others. But, very few obese people have been found to posses mutated genes. Also, according to some scientists, isolating a fat virus has promise. But let's be honest, to even hint that a virus has anything to do with the obesity epidemic is ludicrous.

As commonly known, chronic overeating and inactivity is a common pathway to an obese, unhealthy life. But are we as a nation really eating that much more? As stated earlier, the sharpest swell in obesity rates occurred in the 1990's. According to surveys conducted in 1977 to 1978 and 1994 to 1996, reported daily caloric intake increased from 2,239 calories to 2,455 calories in men, and from 1,534 calories to 1,646 calories in women. Are these enough calories to cause such massive decreases in the health of so many people? I don't think so.

However, there is one factor I believe is responsible for the greatest portion of the unhealthy state of our union. It's not necessarily how much we're eating, genetics or even a virus; it's what we're eating.

Quantity vs. quality

If a calorie is a calorie is a calorie, as most dieticians, nutritionists and doctors claim, why doesn't the percent of increased caloric intake match the percentage of increase in overweight or obese individuals? The increase in calorie consumption in men and women has grown 7 percent and 9 percent respectively since the seventies. The increase in the percentage of persons who are overweight or obese has increased almost 20 percent in each category. And remember, this increase occurred in less than 30 years, which is less than a generation. Why such a discrepancy between calories consumed and weight gained?

Even more compelling, as the obesity epidemic shows a leveling off around 1999, NAHNES surveys from 2006 to 2007 show a corresponding increase in caloric intake of 6.9 percent and 7.7 percent of men and women respectively after 1996. If eating more were the primary problem, why is there a leveling off of obesity prevalence? Because there's more to this epidemic than the number of calories people are consuming.

The food processing industry has dropped the ball when it comes to supplying healthy food for our consumption. It is blatantly obvious by the ingredients listed on food labels, coupled with the downward spiral of ill health in the U.S., that the food industry is obsessed with increasing its bottom line with no regard for the adverse effects of its products. It would be naive to assume that this billion-dollar industry has the best intentions for our food's safety and nutritive value.

Now don't get me wrong, I am not trying to make excuses for people who overeat and don't exercise. I know that the vast majority of overweight individuals eat excessive calories. But the numbers just don't add up.

On the other hand, the obesity epidemic and its related afflictions do have a linear relationship to the amount of denatured, devitalized, processed food people consume, especially simple sugars and vegetable oil.

The incidence of overweight and obese individuals, shown by the National Health and Nutrition Examination Surveys (NHANES) (Fig. 2), has a striking relationship to fructose consumption in the United States (Fig. 1). According to the USDA's data below (Table 1), total sugar and fructose consumption started to increase sharply in 1985 and reached a peak in 1999, which is congruent with the incidence of obesity. During 2000 through 2005 we see a slight drop in total sugar and fructose consumption, which is consistent with the leveling off of obesity rates during that same period. This decline in sugar adds up to 10 pounds of total sugar, with fructose contributing six of those pounds.

Even more compelling, the USDA's data in Table 1 below reveals total sugar consumption from 1970 to 1999 increased 26 percent, which at first glance doesn't seem like much. Also note that from 1970 to 1983 total sugar consumption did not increase, while obesity rates did, which would lead one to infer that sugar is not a major contributing factor to our expanding waistlines. However, take another look. While total sugar consumption did not increase from 1970 to 1983, fructose consumption tripled. Moreover, between 1970 and 1999, with only a 27 percent increase in total sugar consumption, fructose consumption increased 525 percent.

Table 1. United States Sugar (caloric sweetener) Consumption.

Year	Total sugar in lbs	Fructose in lbs and % of total
2009	130.6	65.7 or 75.7%
2007	136.3	72.8 or 53.5%
2006	139	75.0 or 53.9%
2005	142.2	77.6 or 54.6%
2000	148.9	81.8 or 54.9%
1999	***151.3***	***83.5 or 55.2%***
1995	144.1	77.9 or 54%
1990	132.5	66.8 or 50.4%
1985	***126.2***	***62.2 or 49.3%***
1983	***119.3***	***47.6 or 39.9%***
1982	117.7	42.7 or 36.3%
1980	120.2	35.3 or 29.3%
1978	121.3	28.4 or 23.4%
1976	119.9	25.2 or 21.0%
1970	***119.1***	***15.9 or 13.3%***

Figure 1. Caloric sweetener consumption chart.

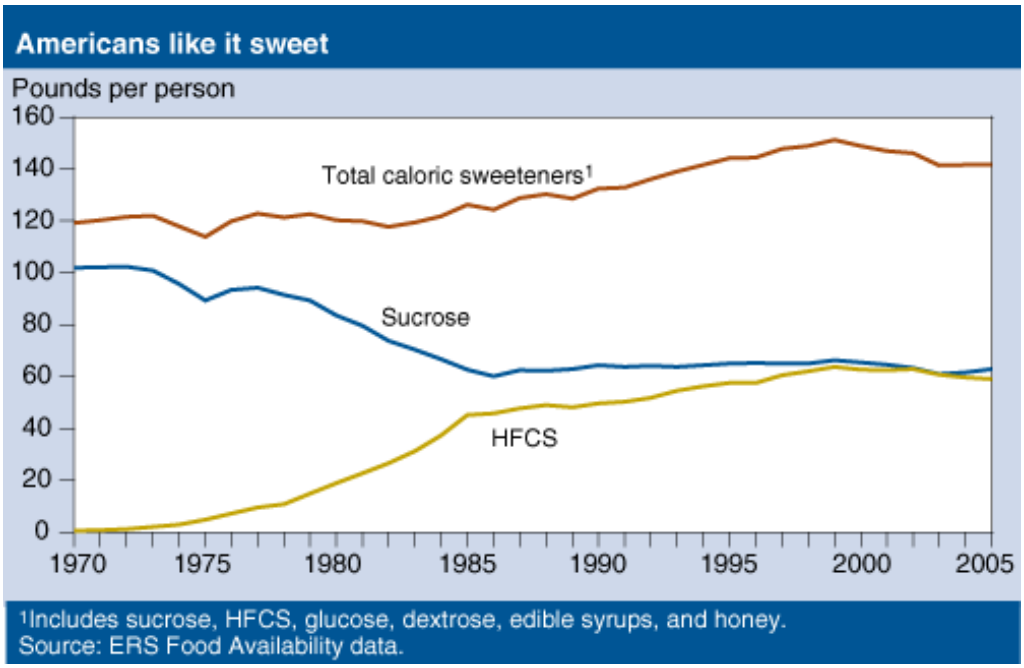


Figure 2.

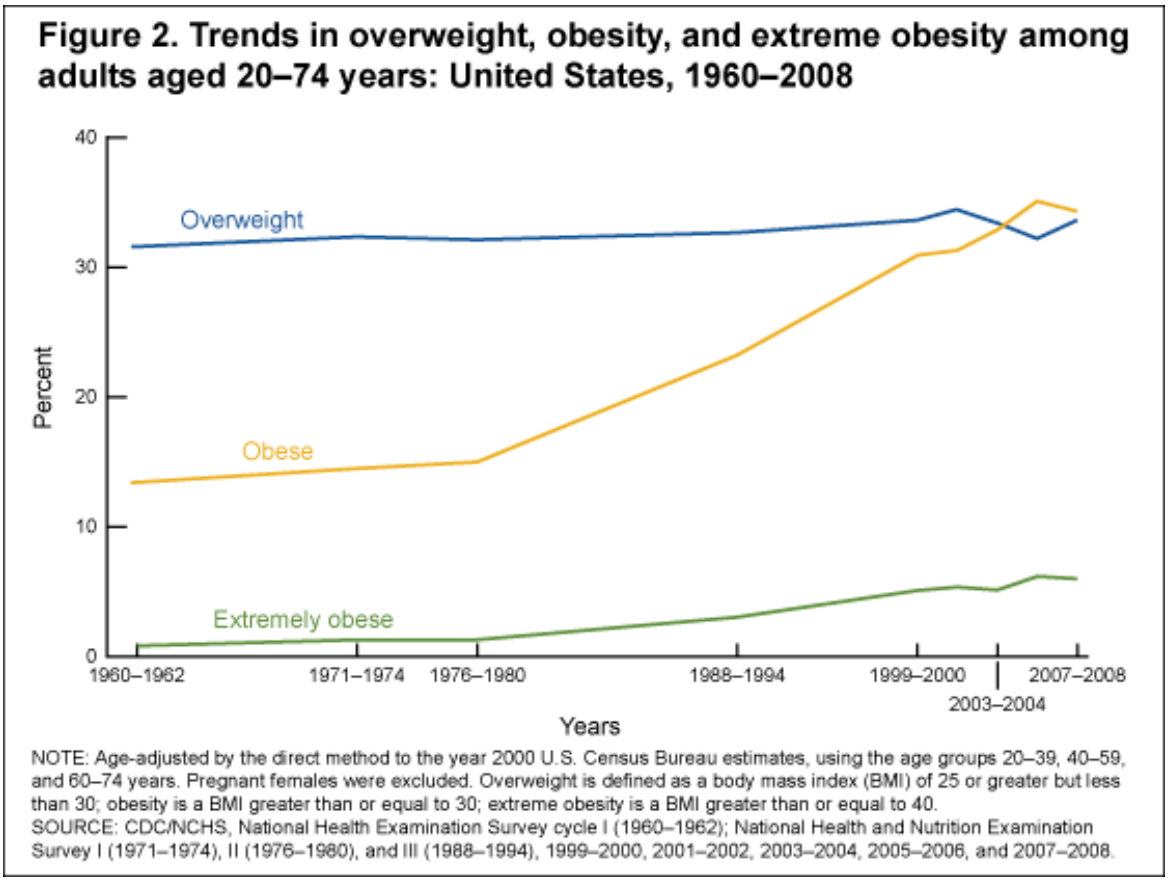
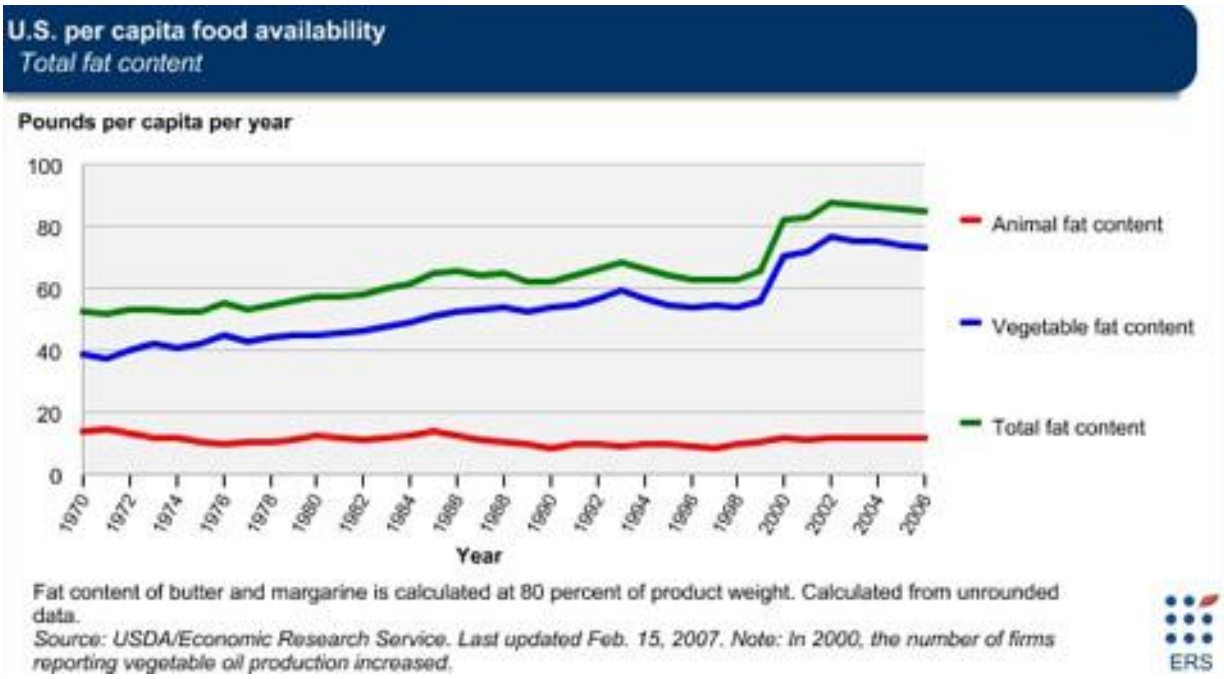


Figure 2. Trends in overweight, obesity, and extreme obesity among adults aged 20–74 years: United States, 1960–2008
40
30
20
10
0
Percent
Overweight
Obese
Extremely obese
1960–1962
1971–1974
1976–1980
1988–1994
1999–2000
2003–2004
2007–2008
Years
NOTE: Age-adjusted by the direct method to the year 2000 U.S. Census Bureau estimates, using the age groups 20–39, 40–59, and 60–74 years. Pregnant females were excluded. Overweight is defined as a body mass index (BMI) of 25 or greater but less than 30; obesity is a BMI greater than or equal to 30; extreme obesity is a BMI greater than or equal to 40.
SOURCE: CDC/NCHS, National Health Examination Survey cycle I (1960–1962); National Health and Nutrition Examination Survey I (1971–1974), II (1976–1980), and III (1988–1994), 1999–2000, 2001–2002, 2003–2004, 2005–2006, and 2007–2008.

In **Figure 3** below, take note that while animal fat consumption has decreased, we've seen a simultaneous increase in total fat consumption that closely mirrors the obesity trend. Also note, the increase in total fat consumption is due to vegetable oil, which is mistakenly used for frying, spreads, dressings, etc.

Figure 3. Fats consumption chart. Courtesy of ERS/USDA Data

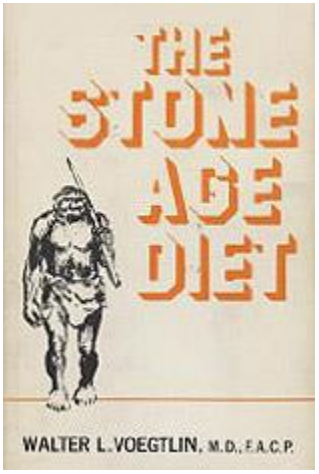


The Stone Age diet

To understand just how far off the beaten path we've gotten from eating the proper foods vital to our health, we must take a look at what we used to eat before the obesity and cardiovascular disease (CVD) epidemic. Some researchers have tried to illuminate all the way back to when we were hunter-gatherers.

Unfortunately, because of the limited evidence, there's a limitless amount of conjecture having to do with the foods our Stone Age ancestors consumed. However, the one factor agreed upon regarding the Stone Age caveman's diet, is that it was full of whole, natural, nutrient-dense foods. The caveman couldn't use products like vegetable oil and high fructose corn syrup because they weren't manufactured yet, and sugar was limited to seasonal fruit if available at all.

Be that as it may, there are vastly different points of view when discussing the Stone Age diet. The low-fat politically correct (PC) school of thought is that Stone Age man ate small amounts of lean meat with copious amounts of plant foods. The high-fat school of thought is that Stone Age man placed prime importance on fatty animals first, with plant foods comprising a small percentage of their diet.



Dr. Walter Voegtlin takes a vastly different approach to deciding what foods the cavemen consumed. In his book, "The Stone Age Diet," he makes an argument for the higher fat, high meat diet by comparing the anatomy and physiology of man to that of herbivorous sheep and a carnivorous dog. Dr. Voegtlin argues that broad differences in

anatomy between man and herbivores are evidence that man did not live on a diet high in plant foods, especially those rich in carbohydrates.

Humans are carnivorous animals and the Stone Age diet, Dr. Voegtlin challenges, was primarily one of a meat and fat eater. Like the carnivorous dog, our jaw moves in a vertical motion. A herbivores' jaw moves in a rotary fashion. We have canine teeth, ridged molars and incisors designed for crushing and tearing. Unlike herbivores that lack canines and have flat molars, mastication is unnecessary, and we do not ruminate or chew cud. Our stomachs hold two quarts, empty in about three hours, secrete hydrochloric acid, lack bacteria and cannot digest cellulose. A herbivorous sheep's stomach holds eight and a half gallons, never empties, digests cellulose, and bacteria are vital to its function. A herbivore's stomach doesn't secrete hydrochloric acid, which is primarily for the digestion of protein. Carnivores like man feed intermittently while herbivores continuously feed (graze). A herbivore's digestive tract is five times the size of man's relative to our body size. Unlike herbivores, man's colons are short, and our rectums are small and do not contribute to digestion. Man's gall bladder has a vital function and is well developed. The role of a herbivore's gall bladder is weak or nonexistent because of the lack of fat in their diet. The volume of feces from man is small because our digestive efficiency borders on 100 percent. A herbivore's feces are voluminous because their digestive efficiency is less than or equal to 50 percent, and they must eat large quantities of food.

Stone Age man, out of necessity, ate food that was very nutrient and energy dense. Humans, in the Stone Age, by a sheer lack of availability, could not have consumed a lot

of carbohydrates. Stone Age men couldn't just walk outside the cave every morning and harvest what they desired for the day. They harvested what was available. Fruit wasn't and isn't readily available in the wilderness. And when it is, it's seasonal. It's hard for us to imagine the hard life they led, but a PC diet of mostly fruits, grasses, vegetables and some lean meat just wouldn't cut it in the harsh environment of early man.

A recurring premise among anthropologists and explorers, who were eyewitnesses to primitive societies, is that Stone Age man had an extensive diet with a broad range of foods. Evidence seems to indicate that hunter-gatherers didn't just eat a PC diet of mainly foraged roots, fruit, and some lean meat. But did they eat a diet centered on large animals with a small amount of plant foods thrown in for good measure? The Stone Age diet varied from region to region and sometimes accommodated changes within an area, like famine and drought. Being resilient and adapting to the ever-changing environment is the reason Stone Age man survived for millions of years before agriculture. To put it simply, they lived in conjunction with their surroundings using what resources were available.

The hunter-gatherers or cavemen of North America ate animals that included mammoth, rhinoceros, sloth, bison, mountain sheep, beaver, antelope, elk, mule deer, horse and large dogs. Mammoth, rhinoceros, bison, beaver, bear and wild pigs are fatty animals in every sense. Their remains have been found by scientists at Stone Age sites throughout the world. Some archeologists believe that the caveman's selective hunting of fattier animals is what led to the extinction of the larger animals like the mammoth, sloth, and rhinoceros.

Much has been written concerning the food of cavemen in an attempt to secure credibility for endorsing a particular diet. The fact remains, however, that the interpretations of the Stone Age diet are just that, interpretations or educated guesses. The only thing we know for certain is that we did not evolve (if you believe in evolution) on a diet consisting of vegetable oil, margarine, cereal, grains, sugar, candy, soy or any other man-made, highly processed, mass-produced food. Man-made, mass-produced products contributed to absolutely none of the Stone Age diet.

The advent of processed carbohydrates

It wasn't until about 10,000 years ago that man started agriculture, which is a blink of an eye in time; not nearly enough time to physiologically change the way our bodies process food. The Agricultural Revolution, which saw massive increases in agricultural productivity between 1750 and early 1900, is responsible for the vast majority of today's disease. It is evident that agriculture and human health have an inverse relationship. The evidence shows that as people around the world abandon traditional diets revolving around animal sources and other whole natural foods, and replaced them with grains, cereals, other starches and sugar, health problems always follow.

The ill effects of consuming refined carbohydrates was obviously an unintended consequence of people at the beginning of the agricultural revolution looking for better ways to feed their families and growing populations. However, the explosion of grain-based agriculture has not only brought ill health to many societies, but it's also destroyed ecosystems, drained wetlands, and continues to suck the very life out of soil around the world. When the truth is known, it's easy to understand why big agriculture spends so much money doing damage control to influence public opinion.

Am I saying we should completely avoid agriculture and the food it produces? No. But the scientific data of the past and present does not support the assertion that a PC diet that is high in carbohydrates and low in fat and protein is how we should eat to be healthier. Fat, especially saturated fat, and protein have been nourishing societies around the world for tens of thousands of years. Mammals and fish are the most nutritious foods on the planet. There are nutrients essential to our health that can only be found in animal sources; no plant sources equal their nutritive value.

Diets from around the world

When comparing the indigenous diets of different societies to the average diet in the U.S., as many explorers and scientists have, it becomes apparent that it's not how much we're eating as much as what we're eating. Processed foods play no part of indigenous diets of societies around the world

The Maasai and Samburu tribes of Africa exist almost entirely on milk, blood, and beef. The Samburu may drink more than a gallon of milk each day, which works out to well over one pound of butterfat. The Maasai don't drink as much milk as the Samburu but eat more meat. Both tribes are virtually free from obesity and modern diseases like CVD And diabetes.

From 1951 to 1976 the consumption of animal fats in Switzerland increased by 20 percent despite a decrease in milk intake of 46 percent. Throughout this same period, smoking increased among women but remained the same among men. If the lipid hypothesis were correct, one would think mortality from cardiovascular disease would also increase. But to the disdain of proponents of the lipid hypothesis, mortality from CVD decreased by 22 percent in males and 46 percent in females. Presently, Switzerland has an obesity rate four times less than the U.S.

The average French person consumed 108 grams per day of fat from animal sources in 2002, while the average American consumed only 72 grams. The French, whose obesity rate is less than 10 percent, eat four times the amount of butter, 60 percent more

cheese and nearly three times as much pork. Although the French consume only slightly more total fat (171 grams per day versus 157), they consume much more saturated fat. Americans consume a much larger proportion of fat in the form of vegetable oil, with most of that being soybean oil (the worst type). Despite eating 50 percent less saturated fat than the French, Americans have more than twice the risk of CVD. This phenomenon is referred to as the French paradox. But it is only a paradox if one believes saturated fat and cholesterol are unhealthy. I do not.

The Japanese lifespan, the longest of any nation in the world, is attributed to a low-fat diet. The Japanese eat about 186 pounds of dairy products and 154 pounds of fish per year. Their diets contain moderate amounts of animal fats from eggs, pork, chicken, beef, seafood and organ meats. Egg consumption is higher in Japan than America. Over the last 50 years, consumption of fats increased 15 percent, and the mean cholesterol levels rose from 150 in 1958 to 188 in 1989. Despite the facts that the Japanese smoke much more than Americans, and have increased their consumption of fats, they still live longer than any society in the world and have a very low incidence of CVD, and an obesity rate of just over 3 percent.

What do countries like Switzerland, France, Japan and a whole host of others have in common? The majority of their diets consist of natural whole foods with a high nutrient content indigenous to their regions of the world. Unlike America, processed foods are still a small part of their daily food consumption, which corresponds to an increase in overall health and longevity.

Banned Foods

On a positive note, we know we're unhealthy, and now understand a few of the major reasons why we're unhealthy. Unfortunately, many people have been feeling and looking sick for so long, the journey to becoming healthy seems like an overwhelming task. Some of the problem is due to conflicting advertisements, articles, books, and pseudo experts promising the ultimate answer, bombarding people with quick fixes and misinformation. Americans aren't sure what or who to follow, and when they do, the vast majority fails.

Another major problem we Americans face is that most of the food we eat has little resemblance to natural whole food, lacks any nutritional value, and is made with ingredients that can have serious health consequences. Convenience foods have become such a part of our society we've become too lazy to cook meals made from real food. And many of the meals people do cook involve premade this, and premade that. Again, Americans consume "faux-food".

So, let's get right down to business with a real solution using real food. As the saying goes, "knowledge is power." To move forward toward their destination one has to have the right directions. The following are some of the worst foods/ingredients Americans consume. If you make any changes at all after reading this book, cut these foods/ingredients out of your diet. I can't keep it simpler than that. There is no gray area; there is no eating the following in moderation. Even if you eat these foods/ingredients in small amounts – you'll pay the price.

Fructose, the fat carb

Sources: This garbage, this toxin is found in everything from soda to cereal. It's literally in thousands of products. If it's mass produced, it's almost assuredly an ingredient. Read your labels.

> "With an eye toward primitive diets transformed by civilization, and the change in Western diets over the past few hundred years, it can be said that the single most profound change, even more the refinement of carbohydrates, is the dramatic increase in fructose consumption that comes with either the addition of fructose to a diet lacking carbohydrates, or the replacement of a large part of the glucose from starches by the fructose in sugar" (Good calories, bad calories, 2007, p. 197).

The "fat carb" has been in our food supply for more than 35 years. We've been led to believe that fructose from high fructose corn syrup (HFCS) is a naturally occurring sugar, and our bodies can't tell the difference between it and other forms of sugar. Nothing could be further from the truth.

If you're like the average American, you're consuming fructose in large quantities and don't even realize it. Unfortunately, whether you're aware or not, research shows this practice will result in a lower metabolic rate, insulin insensitivity, less fat burning, increased triglycerides and an increase in visceral belly fat. Not a good combo if your goal is to be healthy.

Researchers in a double-blind study compared the effects of eating a diet comprised of glucose or fructose-sweetened beverages that provided 25 percent of the subject's energy requirements for ten weeks. Both groups gained a similar percentage of weight and body fat, but the glucose group gained subcutaneous fat, while the fructose group gained visceral abdominal fat. Subcutaneous fat is the fat you can grab just under the skin. Visceral fat, however, is not found under the skin. It surrounds the internal organs inside the abdominal cavity. Increased abdominal fat, especially visceral fat is concerning because it produces hormones and other substances that profoundly affect our health in negative ways.

More-over the fructose group had a significant decrease in lipolysis (fat burning) and decreased insulin sensitivity and glucose tolerance. The glucose group had little change in lipolysis, insulin sensitivity, and glucose tolerance. Researchers also repeated the findings in a study by researchers from the University of California, Davis demonstrating the consumption of fructose slowed participant's metabolic rates.

If that doesn't sound like a recipe for disaster, I don't know what does. But wait, it gets better.

A study published in the Journal of Nutrition was performed to determine the magnitude by which consumption of fructose would stimulate lipogenesis (fat formation). The subjects consumed a drink containing 85 grams of sugars in a random blinded order. The drinks contained either 100:0 glucose, 50:50 glucose to fructose or 25:75 glucose to fructose. Researchers concluded that when fructose was consumed, lipogenesis was 200 percent greater than when it was absent.

The problem is our bodies metabolize fructose differently than glucose. When we consume glucose, it is transported to our vascular system from the small intestines, which raises our blood glucose levels. The pancreas then secretes insulin which shuttles the glucose to each cell where it's needed. When we consume fructose, it is solely metabolized in the liver, producing high triglyceride levels, which have been found to be an independent risk factor for cardiovascular disease. Also, fructose is a very low glycemic carbohydrate and does not induce insulin secretion, nor does it boost leptin production, both of which are essential signals for decreasing hunger. If one doesn't feel satiated after one eats, what will one do? Keep eating. Hence the name, "fat carb". Eat it, get fat; eat more, get fatter.

Russ Bianchi, a pharmacologist, and toxicologist, explains: "there is no safe form of fructose available from any source unless already existing in an unprocessed apple or another piece of fruit. The science is known and epidemiologically proven."

If you follow the obesity epidemic in the U.S., you'll find that Americans are eating less fat. In 1965 men ate an average of 139 grams and women 83 grams of fat per day. In 1995 men ate 101 grams and women ate 65 grams of fat per day. With the way fat has been demonized over the last four decades, you'd expect an increase in fat consumption to be the primary cause of the obesity epidemic, yet it's clearly not.

However, as shown earlier (Fig. 1 and Fig. 2) the increase in fructose consumption does coincide with the obesity epidemic. Today fructose represents 40 percent of the sweeteners added to foods and beverages. It's essentially the sole caloric sweetener in

soft drinks in the United States. There are very few soft drinks that are sweetened with sucrose, which is still 50 percent fructose; the other half is glucose.

Is it any wonder why obesity is an epidemic? One of the main ingredients in our food supply not only readily converts to fat when we consume it, it facilitates fat storage. And Americans as a whole are eating large quantities of it.

Polyunsaturated fats

Sources: Corn oil, soy oil, safflower oil, sunflower oil, cotton seed oil, walnuts, flax oil, hemp oil, herring, salmon, sardines and mackerel.

Technically called lipids, fats and oils are made up of many different types of fatty acids. Fatty acids are the same whether they come from plants or animals. The oleic acid that is found in olive oil is the same as the oleic acid found in lard (pig fat). It's the proportions of fatty acids that will vary from plant to plant, from animal to animal, and from plant to animal.

Safflower, corn, sunflower, soybean and cottonseed oils all contain more than 50 percent of the highly unstable fatty acid Omega – 6 and should never be used in cooking, frying or baking. Heating these oils causes oxidation and produces large amounts of free radicals.

We have been, and still, are being force-fed a load of propaganda concerning the virtues of polyunsaturated fats, or more commonly known as vegetable oils. We've been told relentlessly that polyunsaturated fats are good for our health and to increase our consumption. Unfortunately, polyunsaturated fats cause many health problems.

One of the biggest reasons polyunsaturated fats are so unhealthy is that they are very susceptible to becoming oxidized, or rancid when exposed to heat, light, and oxygen. The polyunsaturated oils you buy in grocery stores are already rancid.

The extraction process is the problem:

Throughout the entire denaturing process, these oils are also exposed to oxygen.

- The oil is extracted with mechanical pressing and heated to 230 degrees.
- A chemical solvent is used to get what oils is left.
- The solvent is then boiled off, again exposing the oils to heat.
- Because these oils become rancid, they are treated with deodorizers to get rid of the horrible smell.

- Finally, most oils are then bleached to give them "eye appeal". Americans love the light golden color.

Now, you go to the store to purchase soy, canola oil, or a host of other vegetable oils, which have been touted as healthy, not knowing that you're actually purchasing a free radical cocktail that, over time, causes serious health problems. Free radicals, or "chemical marauders" as some scientists refer to them, wreak havoc on our bodies.

Some of the problems they cause for us include:

- Attack cell membranes
- Cause damage to DNA/RNA strands, triggering mutations in tissues throughout the body
- Causes wrinkles and premature aging
- Damage to tissues and organs sets the stage for tumors
- Damage to blood vessels initiates plaque buildup
- Inflammation
- Linked to autoimmune diseases like arthritis
- Linked to Alzheimer’s
- Linked to cataracts

Trans Fats, another health scam

Sources: Any foods containing "shortening," "partially hydrogenated vegetable oil" or "hydrogenated vegetable oil" in the ingredients list.

These manmade fats, like fructose, are in thousands of products. I cannot stress enough the importance of reading food labels. However, do not be fooled by products that claim "zero trans fat." Showing the power of the edible oil and processed food industries, the FDA agreed to allow food labels to list trans fats as "zero" if it contains a half a gram or less per serving.

Decades of research show the consumption of trans fats to be detrimental to health. As early as the 1940s, researchers found a strong correlation between cancer, heart disease and the consumption of hydrogenated fats.

What are trans fats? They are poison in our food supply. The latest government study confirms that trans fat is directly related to heart disease and increases LDL cholesterol. Because of that, the Institute of Medicine, a branch of the National Academy of Sciences, declared there is no safe amount of trans fat in the diet. There should be a warning on food made with this stuff like there is on nicotine products. It's that bad for you, says Dr. Jeffery Aron, a University of California at San Francisco professor of medicine and one of the nation's leading experts on fatty acids and their effect on the body.

These manmade fats are toxins in our bodies. Trans fat is produced through the process of hydrogenation. This process turns polyunsaturated oils into fats that are solid at room temperature, which are used to make products like margarine and shortening.
The oil is mixed with metal particles, usually nickel oxide, and is then subjected to hydrogen gas in a high-pressure, high-temperature container. Next, emulsifiers and starch are added to the oil/metal mixture to give it a better consistency.

Now you have the base for margarine, only it smells like you know what because it’s rancid. It’s also gray from the metallic additive. Who would buy a spread like this? Nobody, that’s why it is then steam cleaned to get rid of the smell; colors and flavors are added to make it resemble butter. This junk has been pushed onto us by industry, the American Heart Association, and the medical community. The very people whom we trust with our health, our lives, thanks a lot.

Hydrogenation serves two primary purposes. First, the process causes the hydrogen atoms to rearrange and makes a typically curved molecule straighter. The straighter the fat molecules are, the easier they pack. The unnatural straighter molecules allow a fat that is usually liquid at room temperature, like soy oil, to be solid. Second, hydrogenation makes the naturally unstable polyunsaturated molecules more stable by destroying most of the omega-3 and omega-6 fatty acids, both essential for good health. These fats being unnaturally more stable, extend the shelf life of processed foods.

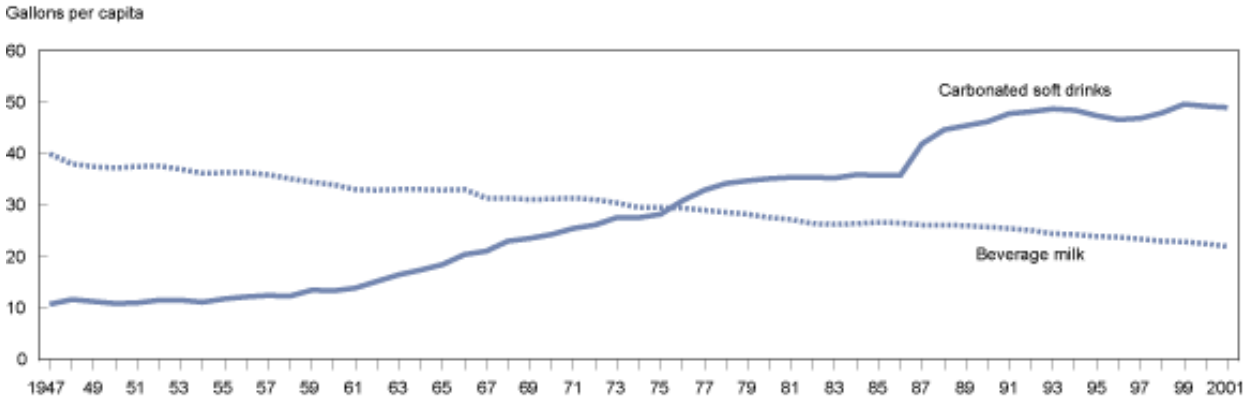
At one time, tropical oils with anti-microbial properties like coconut and palm oils were the fats used in thousands of products we bought in grocery stores. These healthy oils have been replaced by cheap, toxic, man-made hydrogenated oils. Oils like coconut oil and palm kernel oil are the best sources of lauric acid. Lauric acid has anti-microbial properties that inactivate viruses like HIV, measles, herpes simplex-1, vesicular stomatitis, visna, and cytomegalovirus.

Soda Pop

I know soda pop is an obvious choice when discussing what to eliminate from your diet, but it has had such a profound effect on the ill health of this country it needs to be mentioned. As stated earlier, fructose is essentially the sole caloric sweetener of soft drinks in this country. Children and adolescents in the U.S. are increasingly choosing soft drinks rather than milk or juice. The USDA's Economic Research Service found that the consumption of soft drinks increases as a child becomes older. On average, for every one-ounce reduction in milk consumption, a child consumes 4.2 ounces of soft drinks. Just what a growing child needs.

As the chart below shows, between the years 1970 and 2001 per capita consumption of carbonated soft drinks more than doubled. By 2001 per capita milk consumption had dropped to 22 gallons, while soft drink consumption soared to 49 gallons. Should we be worried about this shift in drink consumption? You bet.

Courtesy of the USDA



One can of soda has ten teaspoons of sugar, in the form of man-made fructose. And if this wasn't bad enough, soft drinks also contain high levels of phosphates. These higher phosphate levels have been alleged to cause osteoporosis in adults and impaired the calcification of the growing bones of children. Soft drinks have long been suspected of leading to lower calcium levels and higher phosphate levels in the blood. When phosphate levels are high, and calcium levels are low, calcium is pulled out of the bones. The phosphate content of soft drinks like Coca-Cola and Pepsi is very high, and they contain virtually no calcium; they contain no nutritive value what-so-ever.

Soy, America's favorite health food

Soy's a health food right? Well, like so many other substances, that's what we've been told. However, contained in the United States Food and Drug Administration's Poisonous Plant Database, which contains references to the scientific literature describing studies of the toxic properties and effects of plants and plant parts, under "soy bean" there are 310 records. The deleterious effects soy has on our bodies are caused by several different substances; we're going to go over just a few.

One of the substances contained in soybeans is goitrogens. These are naturally occurring and interfere with the function of the thyroid gland. Goitrogens get their name from the term "goiter," which means enlargement of the thyroid gland. (37) Other foods that contain goitrogens include broccoli, cabbage, mustard, peanuts, turnips, brussels sprouts and others. However, unlike soy, the goitrogens in these foods are quickly neutralized by cooking or fermentation. Heat, pressure or alkaline solutions will neither deactivate nor remove goitrogens from soy. They are virtually in all soy foods, with the highest concentration being in products like tofu and soy sauce that are not fermented.

Another nasty class of substance in soy that can inflict damage upon your body is called phytoestrogens. Isoflavones are examples of phytoestrogens, and are in many plants, with the highest concentration being in soybeans. Phytoestrogens, although not hormones, are very similar and can bind to estrogen receptor sites and have been shown to cause adverse effects.

Several studies have demonstrated the ability of phytoestrogens to decrease testosterone. Monks as long ago as 164 B.C., included tofu in their diet as an aid to spiritual enlightenment and abstinence. They found the more tofu they consumed, the lower their libido.

The following is a list of myths and truths about soy, taken from westonaprice.org.

Myth: Asians consume large amounts of soy foods.
Truth: Average consumption of soy foods in Japan and China is about 10 grams (about two teaspoons) per day. Asians consume soy foods in small amounts as a condiment, and not as a replacement for animal foods.

Myth: Soy foods provide complete protein.
Truth: Like all legumes, soy beans are deficient in the sulfur-containing amino acids methionine and cystine. Also, the extreme processing used to make soy edible denatures fragile amino acids like lysine.

Myth: Fermented soy foods can provide vitamin B12 in vegetarian diets.
Truth: The compound that resembles vitamin B12 in soy is an analog and cannot be used by the human body; in fact, soy foods cause the body to require more B12.

Myth: Soy estrogens (isoflavones) are good for you.
Truth: Soy isoflavones are phyto-endocrine disrupters. At dietary levels, they can prevent ovulation and stimulate the growth of cancer cells. Eating as little as 30 grams (about four tablespoons) of soy per day can result in hypothyroidism with symptoms of lethargy, constipation, weight gain and fatigue.

Myth: Soy isoflavones and soy protein isolate have GRAS (Generally Recognized as Safe) status.
Truth: Archer Daniels Midland (ADM) withdrew its application to the FDA for GRAS status for soy isoflavones following an outpouring of protest from the scientific community. The FDA never approved GRAS status for soy protein isolate because of concern regarding the presence of toxins and carcinogens in processed soy.

Fat and Protein for the Lean Advantage

Fat burns fat

We tend to refer to them as oils if they're liquid at room temperature like olive oil. And we refer to them as fat if they are solid at room temperature like beef tallow, coconut oil or butter. But, whether liquid or a solid they're all fat.

Fat has many functions outside of being used as an energy source, and unlike carbohydrates certain fats are essential. Without consuming essential fatty acids like omega-3s, obtaining optimum health is virtually impossible. A diet deficient in omega-3s like the typical western diet is a major risk factor in the pathologies of several diseases like cancer, depression, autoimmune disorders and cardiovascular disease. Including the right fat in one's diet will not only improve one's health but aid in fat loss.

But how does fat help us lose fat? Fat satiates the appetite and contributes to stopping the cravings for sugar. But probably most importantly, fat when combined with a low carbohydrate intake aids in burning fat as fuel. That's right fat helps burn fat. When fat is restricted, our bodies have a defense mechanism built in for survival. Our bodies will stop using fat as fuel to preserve our stores for future use.

Sounds bizarre, particularly as it goes against what the media and so-called experts have taught us that to lose fat you have to cut fat from your diet. But the reality is fat burns fat. However, just indiscriminately adding fat to the diet doesn't ensure you'll lose weight, get lean or improve your health. You need to consume the right types of fat and eat a diet low in carbohydrates, especially simple sugars.

Saturated Fat

Saturated fats, which have been demonized for decades, are some of the healthiest fats you can consume. Sources of saturated fats include beef tallow, coconut oil, palm oil, and dairy.

Saturated fats' roles in the body include:

- They constitute at least 50% of our cell membranes and give our cells integrity.
- They play a vital role in the health of our bones.
- They lower Lp(a), a substance in the blood that is said to indicate proneness to heart disease.
- They protect the liver from alcohol and other toxins like Tylenol (Acetaminophen).
- They enhance the immune system.
- They are needed for proper utilization of essential fatty acids.
- Stearic acid and palmitic acid, both saturated fats, are the preferred energy source of the heart. This is why the fat around the heart muscle is mainly saturated. The best sources for palmitic acid are beef, butter and palm oil.
- Short and medium chain saturated fatty acids have strong antimicrobial properties. They help protect us from harmful microorganisms. The best sources are tropical oils such as coconut oil and palm oil.

Unlike polyunsaturated fats, saturated fats are very stable and generally do not go rancid. Because of their stability and the positive functions they play in our bodies, these fats are the best for cooking.

The most saturated of all fats, coconut oil, is one the most beneficial foods one can consume. There is an array of positive research published in the last few years showing the significance of coconut oil. Coconut oil is classified as a "functional food" because of its health benefits that go far beyond its nutritional content. In fact, the coconut palm is so highly valued by Pacific Islanders as a source of food and medicine that it is called "The Tree of Life."

Saturated fat has three subcategories; short chain, medium chain and long chain. Coconut oil contains approximately 65% medium chain fatty acids (MCFA). The saturated medium chain lipid lauric acid, which comprises over 50% of coconut oil, is the

antibacterial, anti-viral fatty acid found in mother's milk. But it's the MCFA's thermogenic or fat burning effect that we're most concerned about

In a study, researchers compared the thermogenic effect between MCFA's and Long chain fatty acids (LCFA's), like those found in vegetable oil after single meals. The meals were 400 calories and consisted entirely of either MCFA's or LCFA's. The thermogenic effect of MCFA's over six hours was three times greater than that of LCFA's. Researchers concluded that as long as the calorie level remained constant substituting MCFA's for LCFA's would result in weight loss. The same number of calories from two different substances yielding different outcomes. How about that calorie theory?

A study was conducted by researchers at McGill University to evaluate existing data describing the effects of MCFA's on energy expenditure and to determine their efficacy as agents in the treatment of obesity. They reported that several different studies had shown weight loss equivalent to 12 – 36 pounds a year simply by changing the types of oils used in everyday cooking and food preparation. Animal and human studies have shown greater energy expenditure, less body weight gain, and decreased the size of fatty deposits when using MCFA's as opposed to LCFA's.

Monosaturated fat

Another healthy fat to include in your diet is monosaturated fats. Sources include chicken fat, duck fat, goose fat, turkey fat, olive oil, canola oil, peanut oil, hazelnuts, almonds, cashews, Brazil nuts and avocados.

Olive oil is the most well known monosaturated fat because of the health benefits espoused to its primary component oleic acid. It's the major edible vegetable oil in Greece, Italy, Portugal and Spain; it's mainly used as a salad oil or for cooking Mediterranean foods. Although commonly referred to as vegetable oil, olive oil, which comes from olives, is a fruit grown on trees. Olive oil is the best vegetable oil to use in cooking because of its high oxidation threshold. However, it is not recommended for repeated use or deep frying like saturated fats.

When purchasing olive oil make sure it's labeled "Extra Virgin", which ensures that it has not been extracted with heat or detergents. Olive oil that is not labeled "Extra Virgin" comes to stores already denatured and containing high amounts of free radicals from the extraction process. It's also important to choose brands that use very dark bottles or metal containers, which ensures the oil is not exposed to light while sitting in a warehouse or on a store shelf. Even though "Extra Virgin" olive oil has naturally occurring antioxidants, overtime light exposure will cause it to spoil.

Protein is number one

Protein is by far the single most important supplement/nutrient you can consume in your quest for losing body fat, gaining size and strength. Protein has a multitude of functions along with repairing and maintaining everything in our bodies from hormones to muscles to bones. Proteins are made up of building blocks called amino acids. There are nine essential amino acids, essential meaning we have to ingest these for survival because our bodies cannot manufacture them. Many researchers now believe we have many other amino acids that should be considered "conditionally essential," because of their significance and our inefficiency at producing them. These include glutamine, arginine, cysteine, taurine, glycine, tyrosine and proline.

If your protein intake or quality is low, your body will get the essential amino acids it needs from its most abundant storage system, muscle tissue, which is why low-calorie diets do not work especially in the absence of weight training. Without consuming the proper amounts of protein, a low-calorie diet will cause a more than average loss of muscle along with body fat. When the dieter starts to eat a more normal amount of food they end up gaining the fat they lost back, and in many cases more body fat because the loss of muscle causes a loss in metabolic rate. Muscle is what drives the metabolism; the less muscle you have, the slower your metabolism. A loss of muscle and a slower metabolism is an inherent consequence of crash dieting and is directly related to Yo-yo dieting.

Knowing the body's need for consuming enough quality protein explains why strict vegetarians, especially vegans, have a lower percentage of muscle than dairy, meat and fish-eating humans and a harder time building muscle or strength in the gym. The quality of protein inherent to a vegetarian diet, especially a vegan diet, is dismal at best, and a few studies have shown vegan males have less testosterone than their meat-eating counterparts, and is particularly the case if soy is part of their diet. What else should you expect consuming food inferior to human physiology?

Consciously consuming a diet low in protein has no benefits; is not based on sound science, and merely a matter of ignorance. If your protein intake or quality is low, your body will get the essential amino acids it needs from its most abundant storage system, muscle tissue. The International Society of Sports Nutrition, in a 2007 position statement, concluded that bodybuilders and strength/power athletes require just under a gram of protein per pound of body weight per day; consistent with my recommendation of 1 g/lb of lean body weight. However, if you train intensely, which is

how you should train, empirical data suggests you may need upwards of 1.5g/lb. Have no fear; this extra protein will not make you fat.

Protein, in and of itself, has little to do with getting fat; protein consumption is inversely related to fat accumulation. The more protein you eat, the more fat you burn as fuel. Protein consumption is directly linked to thermogenesis and satiety through multiple mechanisms. It's what you eat more than how much you eat that will determine how lean, strong and muscular you will get.

Nutritional Principles

Avoiding the Banned Foods discussed earlier is a big step toward becoming healthy and lean, and will make a big difference in the way you look and feel. However, this is just the first step. You also need to eat correctly. The following is a list of principles that are essential, not only for those looking to get into better shape but for serious athletes looking to get an edge. Everyone, no matter what their goals are, fitness level or experience can improve using these principles.

- Prepare your food in advance. This is perhaps the single biggest contributor to consistent healthy eating. Many people are just inherently lazy and not motivated enough to take the time to prepare good food during stressful days coming home hungry. To combat this, always have an array of food that is ready to eat. Foods like chicken, beef, cottage cheese, hard boiled eggs, salads, sliced veggies, etc., should always be in your fridge. You're less likely to fall off the wagon if there is quality food already made.
- Avoid processed foods. Does this really need an explanation? If it does, you're a moron. These foods are devoid of any nutritive value and contain ingredients that should be avoided at all costs.
- If you have access, all the dairy products you consume should be raw; preferably from grass-fed cows.
- Do not starve yourself. When you go without eating for too long, you're setting yourself up for failure. The hungrier you are, the more you tend to cheat. Eat when you're hungry, and stop when you're full.
- Eat at least four meals per day. Your goal should be to eat six times per day, once every 2 to 3 hours. Snacks count as a meal. Eating multiple meals throughout the day keeps your metabolic furnace burning.
- Never eat carbohydrates by themselves. Eat at least a portion of protein with every meal, and some protein with every snack. A portion of protein is 4 to 8 ounces. Or a portion (of meat) is about the size of the palm of your hand or a clenched fist. If your meal consists of a starchy carb, always consume a bit of your protein first, which ensures a lower glycemic index for the meal, and curbs eating too many carbs.

- Avoid simple carbs. Choose carbohydrates that are on the lower end of the glycemic index. *See Approved Foods List.*
- Avoid all sugar sweetened drinks including any juice. It takes eight apples to make eight ounces of apple juice. The only difference between fruit juice and soda pop is the carbonation, and soda has a little less fructose.
- Whenever time is of the essence, you can use meal replacement packs, protein powders, drinks, and bars. This takes the guesswork out of meal planning during a busy day. However, make sure the replacement packs, powder or bars don't contain any of the banned ingredients.
- Use natural, unprocessed fats and oils that are labeled "cold pressed," "expeller pressed," or "extra virgin" for cooking and salad dressings. Avoid the use of, or strictly limit your consumption of, polyunsaturated fats (vegetable oils) and ***never*** cook with them.
- Use olive oil for cooking if you do not want to use animal fats. Olive oil can also be used for one-time frying. Coconut and palm oil are best for frying and cooking because they're stable and have strong anti-microbial properties.
- Use butter, preferably raw, not margarine, and never use fat-free spreads.
- Supplement your diet with nutrients like D3 (10,000iu/day), ubiquinol-active form of CoQ10 (100mg/day), fish oil/omega-3 (3g/day), astaxanthin (12mg), resveratrol (100mg/day).
- Make it a family affair. Don't feed your children a low-fat diet and stop letting them eat fast food or convenience food. Think of their health, not your convenience. If your kids are fat, it's because of your neglect. They're mirroring you -- sitting on your butt and eating too much junk.
- Once per week or so, eat whatever you want. However, avoid the Banned Foods and ingredients. At least keep them to a minimum. Even when eaten occasionally, these nutrients can sabotage your goals and health

Use the following lists to help you make healthy choices:

Authorized Foods

Proteins	Carbohydrates	Vegetables
Salmon	Beans	Lettuce
Swordfish	Lettuce	Spinach
Tuna	Oatmeal	Cauliflower
Orange roughy	Oat bran	Green beans
Pollock	Lentils	Green peppers
Cod,scrod	Low-fat yogurt (Artificially sweetened w/Splenda)	Bell peppers, red, yellow, orange
Venison	Low-fat yogurt (Fruit sweetened)	Broccoli
Low-fat cottage cheese	Okra	Mushrooms
Chicken breast	Sweet Potatoes	Celery
Turkey breast	Squash	Cabbage
Lean ground meat	Zucchini	Cucumbers
Buffalo	Tomato	Onions
Grass fed Beef	Apples	Artichoke
Top round steak	Pears	Asparagus
Top sirloin steak	Honeydews	Collard greens
Eggs	Peaches	Brussels sprouts
Egg whites	Cherries	Dill pickles
Scallops, Mussels, Clams	Kiwis	Peas in the pod
Crab	Grapefruits	Scallions
Lobster	Cantaloupes	Bean sprouts
Shrimp	Whole grain brown rice	Radishes
Protein powders	Whole grain bread	
Meal replacement packs, high protein bars	Whole grain Pasta/Low carb varieties	
Raw milk and cheese		

The glycemic index (GI) of the listed carbohydrates is moderate to low. This list is not complete, but is a good quick reference. The GI is a numerical measure from 0 – 100 according to the effect the consumed carbohydrate has on blood glucose (sugar) levels. Foods with a high GI rapidly digest and are quickly absorbed, which yields striking fluctuations in blood glucose levels. Conversely, low GI foods, because of their slow digestion and absorption produce a gradual rise in blood glucose and insulin levels.

Being aware of food's GI can help control one's blood glucose levels, which will help control insulin levels. Insulin is the fat storage hormone. The higher your insulin levels are, the more food is stored as fat. Also, chronically High insulin levels also cause insulin resistance.

When people are insulin resistant, the cells in their muscle, liver and other parts of their body do not respond appropriately to insulin. Consequently, the pancreas has to secrete more than normal levels of insulin to help glucose leave the bloodstream and enter the cells of the body. Over time this is a recipe for disaster. The more insulin resistant one gets, the fatter one gets. The fatter one gets, the more insulin resistant one becomes. And so on.

Bottom line, the lower the glycemic index of the carbohydrate the better. And although the carbs listed above are acceptable, you cannot eat 1 - 4 servings per meal and expect to lose weight. Choose your carbs carefully and only have one serving per meal if your metabolism allows. The vegetables (fibrous carbs) listed can be eaten in any amount and are preferred over starchy carbs.

Proper nutrition is much more important than exercise. Without eating properly, it is impossible to be healthy even if you exercise. What do you think repairs and maintains every cell in your body? The cells of your bones, blood, muscles, skin, and even your hair are in a constant state of regeneration. Meaning, old cells are being replaced and repaired by new ones. So you can see why it is so important to give your body the top quality nutrition it needs.

Make sure to purchase as much whole natural food as you can. It would be a great move to visit local farms and markets. Try to buy eggs laid by chickens that are truly "free range". Although, true free range eggs are tough to find, the nutritional value is well worth it. If you're going to eat beef, which you should choose grass-fed. If beef from grass fed cattle isn't available, always choose the leanest cuts and add good fats when cooking.

Turning the Tide

The mind is the body's strongest muscle

So where do we go from here? How do we take this newly acquired information to turn the tide and construct a leaner and healthier you? You must decide if getting lean and fit is something you want, more importantly, something you're willing to pay the price for. Are you willing to make a firm commitment to yourself? The only time success comes before work is in the dictionary. Achieving goals doesn't happen overnight. You have to be patient, accept complete responsibility, and put in the time.

The more time you put in and the harder you work the more in tune with your body you become. The more in tune with your body you become, the more progress you'll make. The more progress you make, the more motivated you'll be. The more motivated you become, the longer and harder you'll work. Soon it will become second nature and a part of your lifestyle.

"If you think you can do a thing or think you can't do a thing, you're right."

-Henry Ford

Make no mistake; it's not easy. There is no magic diet and certainly no magic pill. There is no particular herb or chemical to make this an easy task. Anyone who says that a product can make it simple and easy is full of it. If it were easy, everyone would be lean and healthy. The hardest part is having the mental determination to keep pressing forward over the long haul. Making a change is always easy in the beginning because it's

new, and the motivation is high, but this is short term. You must become self-determined and motivated. Consistency is the name of the game.

The greatest impediment to your goal is the mind. Your body, if the mind leads it, will do whatever you ask of it. Staying focused and determined is essential, but impossible without the right mental attitude. It is astonishing in any endeavor, what one can accomplish when a healthy, positive mind is guiding it.

People look for that perfect diet or training program hoping it will magically move them toward their goal. The fact of the matter is, you can have the best trainer, the best program, and the best diet, but if you don't have the right mindset and learn how to maintain it, you're doomed.

> *"Successful people are those who are willing to delay gratification and make sacrifices in the short term so that they can enjoy far greater rewards in the long term"*
>
> -**Brian Tracy, *Eat that Frog***

Without the right mindset it's not worth the aggravation and in some cases the expense, to initiate a change in your life. You must first exercise your strongest muscle, the mind, and put yourself in the right direction on the right path. How far are you going to get driving a Porsche 911 Turbo going the wrong way down a one-way street? Ultimately will it matter if you used a Porsche or a Taurus if you're headed in the wrong direction? Use the following information to not only put yourself in the right mindset for your nutritional, healthy and other physical goals but life in general. Being positive is imperative for a successful outcome to all life's endeavors.

Fuel your motivation with proper goal setting

The biggest problem I see when people set goals is the lack of thought and time given to the process. A good example is New Year's Eve resolutions. Without much thought or time, the average person decides they are going to get into shape and lose weight. January 1st comes and goes, they haphazardly buy a tape, join a gym, do it themselves, join a diet center, start a fad diet, etc. After several weeks, the initial emotional motivation soon wanes, and they quit. Without proper goal setting this type of scenario is almost inevitable.

There are three aspects of goal setting. The first being easy, determining what you want. Whether it's to lose weight, higher income, a new car, a bigger house, or a leaner healthier body, one needs a target. Unfortunately, as with resolutions, this is where most stop. The second is the more involved, and much more challenging, which is to formulate exactly what you're going to have to do to achieve that goal. In other words, what is the "price" you're going to have to pay? And last you need to decide whether or not you're willing to pay.

The hardest part to attaining goals is pre-payment. The goal is achieved only after you've paid the price or done the work. There is no such thing as a free lunch. Attaining a goal requires effort, and you get what you put in. The life you lead today is a reflection of the work you put in up to the present. The life you lead in the future is determined by the work you put in between now and then.

Many people bite off more than they can chew. They set lofty goals usually while they're caught up in emotion, work hard for a while, don't see big returns, get discouraged and quit. Achieving big goals is a lot of work, and health and fitness are no different than any other aspect of your life. There is an old saying that if you save your pennies, the dollars take care of themselves. We need to set and achieve smaller goals and gradually we'll realize bigger goals.

To reach a big goal, one must set small goals. Remember, every journey begins with one step. Simply take your big goals and segment them into smaller, more attainable goals. Look at these smaller goals as rungs on a ladder. Not only does each rung get you one more step toward the top, but you must also hit each one to reach your destination safely and efficiently.

"Success is the ability to go from one failure to another with no loss of enthusiasm."

-**Winston Churchill**

How long will your desire to be 135lbs last if you are constantly fixated on that number while weighing 170lbs? If losing 35lbs is your big and only goal, and all you value, over time feeling like your failing will become more prominent and zaps motivation. To maintain motivation, you must put more of an emphasis or value on the steps or small goals it will take to get to your goal weight.

Using and attaining your small goals will also be a fantastic motivational tool. Motivation is increased by things we value. Some may value being lean, some being strong, and others might value losing 25lbs. Whatever the case may be, when we see things we want, which are of value to us, our motivation to attain is increased. You could say motivation, in essence, is then fueled by our desire to reach that which we value.

Motivation induces us to act. It gives us a reason or incentive to move forward toward what we want or value. Motivation is the single biggest determining factor in one's success in any endeavor, more so than the level of education, money, heredity, or intelligence. You can have an IQ of 135, an MBA from Harvard, a business plan and backing by Donald Trump, but without the proper motivation, you'd almost assuredly fail.

Visualization, reprogram your mind

Once you set your big goal you need to use your mind to visualize it. You must be able to go as far as imagining how you feel once the goal is attained.

Visualization is one of the most powerful tools one can use on the road to success. In fact, I'll go farther and say success is impossible without it. Visualization programs your mind's positive outcomes. Unfortunately, many people need to reprogram their minds because of the constant barrage of negative thoughts throughout their lives. By the time some decide to get physically fit they've got a pretty pessimistic view of themselves and in some case life in general. Reoccurring negative thoughts have a profound effect. Dwelling on the negative and repeatedly reliving the feelings will make success in your life impossible.

Visualization is a way to wipe the slate clean and cancel out those negative thoughts. Think of it as downloading a new version of software on your computer. Make no mistake, if you do not reprogram your mind and continue to think repeatedly in the negative, it will derail your motivation, discourage you, and impede your success. You cannot improve any aspect of your life without first improving the mental pictures of yourself. Visualization is profoundly powerful and will trigger feelings, thoughts, attitudes, conversations and actions, so chose your pictures wisely.

The concept of visualization may seem odd to some. However, it may surprise you to know that some of the most successful athletes, celebrities and businessmen use visualization to attain their levels of success. For example, a prominent strength and conditioning coach told me that Michael Johnson, Olympic gold medal winner, and world record holder, said that he would see himself running with perfect form and then winning the race before it even began.

Powerlifters see themselves bench pressing, squatting or deadlifting the weight successfully before they have even made an attempt. It's important to note, the mind must travel there first so that the body can follow. If the mind is full of negativity, the body will not perform in a positive manner, emotionally or physically. How ridiculous does it sound for a powerlifter to be thinking about how tired and weak he feels before attempting a lift? Are his chances of completing a squat or bench press increased? Likewise, how illogical is it for one to continuously think of them self as out of shape, fat, tired, or unhealthy if they're working toward changing their lives for the positive? How

motivated are you going to be to eat a healthy dinner if you dwell on how much you dislike your body?

To help you in the visualization process, I recommend putting pictures of role models up on your bathroom mirror or the refrigerator. I've gone so far as putting pictures of body parts on my refrigerator. In my days of competing, I would put pictures of arms and calves of some of the best competitors in the world. I chose those body parts because those are the ones I lacked development in the most. I burned these pictures into my mind, and every time I would train those body parts I would think of how I was going to improve. However, be cautious when doing this. Use these pictures as motivation. Admire what others have accomplished and how they look, but do not compare yourself to them.

"Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself."

-William Faulkner

Comparing yourself to others is a losing battle. I have had many men ask me, how they can build a chest like Arnold Schwarzenegger. I tell them flat out, "You can't." You can use his chest as motivation, but you are born with predetermined genetics that will ultimately dictate the size and shape of your chest. Use Arnold as a visualization tool to motivate you, and to think about your chest developing. But do not use his chest as a litmus test for yourself. Compete against yourself. Strive to eat nutritious food and have better workouts to become the best you can, and always celebrate your successes.

In their quest for self-improvement, many women complain about their butt and thighs. If this is your problem area and you see a picture of a person with a great butt and well-shaped thighs, use it. Put it on a piece of poster board. Write quotes or positive affirmations on it like "I love life," "I look great," "I'm an achiever" and "I'm positively changing my life." As Brian Tracy discusses in his book Maximum Achievement, positive affirmations are very powerful and essential on your road success and happiness. Take a few minutes every time you see this poster to soak in the positive statements and think of yourself as achieving this goal. These positive affirmations will bring about positive attitude along with a motivational picture.

Let it be written, let it be done

It's been said that goals that aren't written are just wishes. Write your goals on a piece of paper and keep it in plain sight to remind you of your goals, especially in your weakest moments. Underneath your goal write a positive statement like, "I love myself" or "I can do it." Put your goals on your bathroom mirror, dashboard, and refrigerator; when you see these pieces of paper repeat them aloud with sincerity. You'll be amazed at how small exercises like this can help in a huge way.

Don't worry about other people seeing these reminders. Announcing your goals is another facet of the visualization process. If you fear others knowing your goals, you are already setting yourself up for failure. The fear of failure is this single biggest impediment to an individual's success because it prevents a person from taking the risk and trying. It's the primary obstacle in our lives that keeps us running to our comfort zones.

"Nothing can stop the man with the right mental attitude from achieving his goal; nothing on earth can help the man with the wrong mental attitude."

-Thomas Jefferson

A couple of years ago a good friend of mine, a 198lb world champion powerlifter, made a world record squat of 924lbs. After the meet, a gentlemen came up to him and asked him if he ever fears getting hurt while performing his lifts. My friend responded by saying, "Absolutely not. Why would I think of something like that? As far as I'm concerned, it's not in the realm of possibility. If I dwelled on what could go wrong while squatting over 900lbs, I'd never even attempt it."

How successful do you think a powerlifter would be if he feared injury? How focused would his squat attempts be if he was thinking about blowing his knees out. How focused do you think he would be if he feared missing an attempt or losing in front of

1000 people. Just as failure is an accepted part of powerlifting, one must take it as a part of life. However, it's the perception of a failure that's crucial to your ultimate success.

If your goal is to lose 4lbs this month and you only lose 2.5lbs, technically you failed. However, ultimately you've succeeded. You still lost body fat. You're still on the right path. Congratulate yourself for getting a few steps closer to your goal and take the opportunity to adjust. With every failure comes another more educated attempt at success.

If you have never failed, then you've never tried. What most people don't understand is that failure is inevitable; succeeding without it is impossible. Being successful is a numbers game, so the more you try, the higher your chances of succeeding. Most of the richest most influential people in the world had many failures before hitting it big. Many of these people will attest that they had a support system around them like spouses and friends. But to their credit, they also have an uncanny way of remaining positive despite failing.

With a positive mental attitude and the preceding information achievement is in your grasp. Set your goal, build a course of action, and start reprogramming your mind. Don't forget to celebrate your successes no matter how small they are to build your self-esteem. Learn from the past, but let it go. The person you become will be the sum of what you do now and in the future.

Good luck.

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