EAT MEAT AND STOP JOGGING

['COMMON' ADVICE ON HOW TO GET FIT IS KEEPING YOU FAT AND MAKING YOU SICK]

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Contents

This book is dedicated to my parents' generation – the baby boomers. You will continue to struggle if you refuse to abandon the conventional wisdom that has failed you. If you keep an open mind, you can get better!

“A lot of the public is completely unaware that the strength of the message is not matched by the strength of the evidence.”

— Barnett Kramer

The Common Trap

The majority of us only ask ‘why’ when it's abnormal, or challenges our opinion. Generally, this opinion is based on what we've learned in childhood from coaches, teachers, and parents, and further developed by medical professionals, the government, and even the media. This combination of opinions has formed what we believe is fact, whether the information or source is reliable or not. These so-called ‘fundamentals’ determine our daily decisions, helping us make choices based on what we feel is right or wrong and good or bad.

What some psychologists have dubbed the ‘illusion of truth,’ there’s a human tendency to believe something is true, the more we hear it. When it comes to nutrition and exercise, we follow the same advice today as 50 years ago. Despite clear evidence that the original message is seriously flawed, and has contributed to the highest obesity and degenerative disease rates in history. Not only have these false recommendations dominated our day-to-day eating and training habits, but they’ve determined what we think is necessary to effectively shed the pounds and improve our health. It usually goes something like this:

> *“I just need to eat less and exercise more. It comes down to discipline, you know.”*
>
> *“I eat too many fats. I’ll cut down on my red meat intake, and start using margarine instead of butter.”*
>
> *“I have this friend, and all she did was drink this meal replacement shake for breakfast and she lost 20lbs. I’m going to try that.”*
>
> *“I heard that men my age should eat more fiber to lower cholesterol. I’ll add an extra serving of whole grains at dinner, and start eating high fiber cereal for breakfast like the Heart Association says I should.”*

"I'm eating too many calories. I'll switch to those 100 calorie snacks between breakfast and dinner, and start incorporating tofu and other plant source proteins instead of meat."

As you'll learn shortly, there is a reason we believe and follow certain recommendations on nutrition and exercise, like the ones above.

Cognitive fluency is another psychology term that mean's "we're more likely to believe what's familiar and easy," and conversely, less likely to believe something that's difficult, and unfamiliar. Although it's quite obvious that the result of conventional wisdom is making obesity and degenerative disease all too 'common,' many will still have trouble embracing the 'uncommon' advice found in this book. Common doesn't mean correct, healthy, or sustainable; and obesity, heart disease, Alzheimer's, and cancer don't have to be 'part of the natural aging process.'

In the pages that follow, I'll tell you exactly WHY everyone else eats, everyone else says, and everyone else believes certain nutrition and training advice that has unfortunately become common knowledge. What's driven me to write this book is that over the years I've watched conventional wisdom negatively affect the results of at least 50% of my clients, and ruin the health and body composition of the majority of those around me. I've determined that all I can do to make a difference is communicate what's wrong with the common approach, using over a decade of personal study and experience with clients from all walks of life. I came up with this list of 10 mistakes based on the questions and comments I get most frequently from friends and family, and unfortunately continue to hear from supposed 'experts' online, in magazines and books, and on television. The misunderstanding of topics like calories, saturated fat, cardio, fiber, and cholesterol is negatively affecting daily decision making and leading to an increased likelihood of obesity and disease.

The advice in this book may seem controversial, as it's the opposing view on almost everything we've been told to believe. Although lets not forget the result of the current approach (which still remains unchanged today):

In the year 2000, 65% of U.S. adults were overweight and 30% obese.

33% of the U.S. population born after the year 2000 will be diabetic.

You're here because common advice is not working for you. I know this, because it's not working for anyone. The good news is, once you've read through the 10 mistakes in *Eat Meat And Stop Jogging*, and recognize what's wrong with the current guidelines, I'll show you exactly what's right, while delivering it in a simple and sustainable plan. Experience has taught me that your success with my eating strategy, *Live It, NOT Diet!*, will depend on your full understanding of why these bogus recommendations continue and how they're preventing you from optimal health and performance. Not only is flawed information making and keeping you fat, but it's shortening your life span and increasing your risk of degenerative diseases like cancer, diabetes, Alzheimer's and heart disease.

We're in a serious health crisis in North America, yet decisions continue to be made according to the almighty dollar. As you review the mistakes, you'll quickly notice that nearly every piece of misleading information has an ulterior motive. The ones with all the money run the ads and shout from the rooftops, which leaves us with tainted day-to-day advice. Unfortunately, the increased profits have come at an individual cost. As our health continues to diminish, the negative consequences of a debilitated population will outweigh any financial gain. Psychology has also shown us that repetition has less effect on human beings when the argument is weak. I assure you that the most recent marketing strategies from food manufacturers and corporately funded government projects selling unhealthy products are laughable once you're armed with the right information to make a conscious choice.

It's critical that you continue reading with an open mind as my book opposes many traditional beliefs and several government and medical recommendations. Likely half of you reading this are runners, cyclists, or vegetarians, and you picked up my book because of the title. All I ask is that you take an honest look at the potential future health consequences of your choice to live without animal protein, or rely on endurance exercise to stay fit.

> "There are three things in life that induce powerful visceral responses – religion, politics, and nutrition. Each is based on assumptions, and the adherents of each want to believe in their hearts that they are right; and of course they refuse to be confused by the facts." Barry Sears, Author of The Zone

After opening your eyes to the mistakes you're making, by laying out the facts, showing you the science, and drawing reasonable conclusions on why certain strategies are flawed, I hope you will continue your journey and start travelling down the correct path with *Live It, NOT Diet!*

"I have never seen a person who died of old age. In fact, I do not think that anyone has ever died of old age yet. We invariably die because one vital part has worn out too early in proportion to the rest of the body."

— Dr. Hans Selye (1907-1982)

MISTAKE #1

Restricting Calories To Lose Weight

It's still universally accepted that someone trying to get in shape is seeking 'weight loss.' However, most are not trying to lose weight, and those that are, need to understand the damage and ineffective nature of such an approach. Fat loss is the prevalent goal. By seeking weight loss, we lose less fat and keeping it off becomes more challenging. Tracking scale weight is irrelevant to your health and performance, and our focus should be solely on body composition. For instance, all the women in the picture below weigh 154lbs:

A woman that weighs 140lbs could be 120lbs of lean mass (bone, tissue, and muscle) and only 20lbs of fat. Another woman could be the same weight (140lbs), but 90lbs of lean mass, and 50lbs of fat. Scale weight supplies no information with respect to muscle and fat, and definitely provides no feedback with respect to how we look and feel. Weight loss usually means

muscle loss.

> Research suggests that with a generic weight loss program, muscle loss could be as high as 40% of total weight lost.

As I'll demonstrate in the next section, muscle loss lowers our fat burning rate, increases our fat storage rate, and makes fat loss more difficult over time. Furthermore, it produces a less attractive physique, increases the likelihood of future injury and accelerates the aging process. When you speak to most people about their fitness aspirations, it's clear that 'fat loss' is the prevalent goal. Most are looking to lose excess fat, yet they continue to follow strategies that produce drastic amounts of weight loss in a short period of time. By seeking weight loss, we look worse, feel worse, lose less fat and make staying fit more difficult in the future than it has to be.

Gaining and maintaining muscle should be prioritized in your quest for improved body composition, health, and longevity. If one of your goals is living a long life it's imperative that you make muscle maintenance and growth top priority. The statistics for muscle loss are scary:

- Slow Phase – 25-50yrs old = 10% loss
- Rapid Phase – 50-80yrs old = 40% loss

> By the age of 80, you will have lost nearly 50% of your muscle!

Women seem to battle the muscle maintenance recommendation the most, even though they're the ones most at risk for osteoporosis (a decrease in bone mass and density). Perhaps if they were aware that bone loss is a result of a lack of strength and muscle, they would reevaluate their mindset. Other than an obsession with the scale, this usually stems from the misconception that focusing on activities that build muscle will make women look like a man, or a bodybuilder.

> *Trust me, female bodybuilders that make me look like Ronald Weesly (the skinny red headed kid from Harry Potter) are not going at it naturally*

If you have female friends and acquaintances that lift weights and look bulky, it's because they don't eat right. Compared to a female, males have as much as 8 times the blood concentration of testosterone, and 20 times the daily production. More importantly, if it were easy to naturally bulk up like a

bodybuilder, why do most men that lift weights look slim and trim, despite extremely intense lifting schedules and supplementation?

People that work on muscle building and maintenance always look better than those that worry about cutting weight. Not only because a toned muscular build and shape is more aesthetically pleasing, but because muscle increases the rate at which we burn fat.

The Unlikely Hypothesis

Seeking weight loss usually means restricting calories. Other than muscle loss, this produces an elevation in the hormones that store fat, while decreasing those that burn fat. A calorie restriction diet is counterproductive to the whole reason we're trying to lose weight in the first place. Unfortunately, this is still the customary advice from fitness and nutrition 'experts,' despite extensive scientific support suggesting otherwise. For instance, here's a recent quote from the president-elect of the International Association for the Study of Obesity:

> "Thinking that a specific diet should eliminate people's weight problems is totally unrealistic, there is no getting around the laws of thermodynamics."

Essentially, this is saying that losing weight is a battle of Calories-In vs. Calories-Out, and has nothing to do with what 'type' of food we consume. In other words, individuals are obese because they eat too much and don't exercise enough. As my personal results demonstrate and the following research proves, this guidance is severely flawed.

In 1890, a chemist named Wilbur Atwater decided that the amount of 'energy' in food could be determined by burning food to ash (in a device called the calorimeter) and measuring the heat produced. According to Atwater, one calorie equals the amount of heat required to raise the temperature of one gram of water by one degree. Surprisingly, this is still the measurement used today to determine the calorie content in different foods. The question is, does it seem reasonable to say that our body operates just like Wilbur's oven? The human body is complex, with it's intricate networks consistently adjusting and readjusting based on a variety of internal and external factors. Does it make sense to think that nothing else determines if we store or lose?

If that were the case, one would expect 3 unique diets with the same total calories to produce identical results in weight-loss, right? Fortunately, researchers in 1957 did just that, by putting participants on 1 of 3 1000-calorie diets, varying the percentages of each macronutrient with either 90% fat, 90% carbs, or 90% protein.

> The 90% protein and 90% fat groups lost between 0.6 and 0.9 lbs per day, while the 90% carb group actually gained!

Calorie Restriction = Muscle Mass Loss

What the misguided calorie restriction experts believe and promote is that you lose weight by either:

- Lowering your caloric intake = eat less
- Increasing your energy expenditure = exercise more

Will this make you lose weight? Yes.
Will you lose weight fast? Yes.

Is all of this weight fat? No.
Is it healthy? No.
Is it sustainable? No.

Weight loss is unfavorable if a good portion of it is muscle. Generally, this is the case with calorie restriction strategies as there's no stipulation other than 'eat less.' To illustrate this point, lets look at an interesting study from 2010 that compared 3 diets with varying amounts of protein:

- Low Protein – 5% protein, 52% fat, 42% carbs
- Normal Protein – 15% protein, 44% fat, and 42% carbs
- High Protein – 25% protein, 33% fat, 41% carbs

The great thing about this study is that its initial premise was to show that eating too many calories causes fat gain regardless of food choice. Initially it would appear that the calories-in/calories-out hypothesis holds true as all participants gained 8lbs of fat. However, when we take a more thorough look at the data it's clear that the composition of the weight gain is quite different:

The low protein group gained least total body weight, but along with the 8lb fat gain, they

lost 1.5lbs in muscle mass.

The normal and high protein groups gained muscle mass, approximately 6lbs and 7.5lbs respectively.

Although the weight gain was higher in the normal and high protein groups, nearly half of that was useful, healthy, and metabolically active muscle mass. The composition of the input was different, and so was the composition of the output. When looking at strictly body composition, the high protein group produced the most impressive outcome. They stored only 50% of the excess calories as fat, and stored the other 50% as lean muscle mass.

> The low-protein group stored more than 90% as fat and lost muscle!

Calorie Restriction = Slower Metabolism (RMR)

The research above not only showed us that a lack of protein in your diet causes muscle mass loss, but it also supplied this very important piece of information:

> The low-protein group had a 2% decrease in Resting Metabolic Rate (RMR), while the normal & high-protein groups had an 11% Increase in RMR.

Essentially, this means that:

When sedentary (inactive) the low-protein group will burn less calories per day because of a slower Resting Metabolic Rate.

Nearly 75% of our total energy expenditure is determined by our Resting Metabolic Rate (RMR), meaning a low rate can be very detrimental. On a calorie restriction plan, the RMR drops because of lack of energy in, and because of a loss of muscle. Unfortunately, the foods high in protein that facilitate muscle maintenance are usually restricted to meet the caloric constraints. When someone operates in a caloric deficit they continue to decrease the rate at which they burn calories, and lose useful muscle that would otherwise have burned additional calories. Meaning you may be eating less, but you're also burning less, because of your slower metabolism. The long-term impact of such an approach is devastating:

Prolonged caloric reduction (3100kcal to 1950kcal) decreases metabolic rate by 20% per kg of bodyweight

24 weeks of severe caloric restriction decreases metabolic rate by 40%

Furthermore, once our metabolic rate drops because of an extended period of calorie restriction, it takes a significant amount of time to bring it back to it's pre-diet level.

> *"But it was only a 6 week bikini season shred-up. I'll return to normal and I'll do it again after Christmas? My body's rate will go back up and start living normal again, right?"*

During the restoration period after a calorie-restricted diet our threshold to gain fat is now lower than when we started. We're burning less, meaning it will take less intake to gain. A lower metabolic rate also lowers the absorption of muscle building foods, like protein. Implying that if a standard diet is reestablished, the synthesis of essential foods is diminished.

Considering that our body reduces it's metabolic rate as we age, by approximately 2.3% per decade after the age of 20, the outcome from a lifetime of dieting is extremely unfortunate.

Calorie Restriction = Hormone Disruption

The worst outcome from calorie restriction is that it raises the hormones responsible for hunger and fat storage, and lowers or inhibits the hormones that suppress hunger and promote fat burning.

> Calorie restriction increases fat storage hormones, and decreases fat burning hormones.

Equally disturbing is that similar to our metabolic rate, it appears that this disruption in hormones lasts for a substantial time period after the restriction phase. For example, a 2011 study in the New England Journal of Medicine determined that after a 10-week period of restricting calories, not only did hunger and fat storage hormones elevate, but:

> *Leptin (the hormone that prevents fat storage) remained low for a WHOLE YEAR after the restricted time period.*

Low leptin not only promotes fat storage, but research has suggested that:

> A 20% decrease in leptin produces a 24% increase in hunger!

Ghrelin is the hunger hormone, and when leptin is down ghrelin is up. Upon completion of a calorie restriction diet, you are burning less (low metabolism), storing more (low leptin), and hungrier (high ghrelin).

Furthermore, as was illustrated in the 10-week diet, this altered state may last for a full year. When a calorie-restricted diet is your strategy to lose, it becomes harder and harder to keep the fat off. Although the 'weight' may come off in the short-term, the hormonal consequences will produce a lifelong struggle.

Other than leptin, you're looking at a reduction in thyroid hormone (t3) and the sympathetic nervous system, which are driving forces in lowering your overall metabolic rate. Many think that our thyroid hormone is the major determinant of metabolism, until they learn that leptin controls their thyroid.

Calorie Restriction = Decreased Satiation

One of the reasons many fail on diets and calorie restriction plans is because they're constantly hungry. Although ghrelin (the hunger hormone) plays a major part, it's largely because our body is seeking nutritionally dense food for proper functioning. A meal high in animal protein not only provides our cells with what they require, but it increases fullness and satisfaction until lunch, and decreases the motivation for food throughout the day. On a calorie restriction plan, a meal containing animal protein would be frowned upon, because it's high in calories. After a meal like this, individuals on a diet would likely have to restrict their intake for the rest of the day in order to avoid eating too many calories or going over in 'points.' Those following such an approach have been severely misguided, as we require the essential fats, nutrients, and amino acids in these sources for survival. Not only are we fighting one of our basic primal desires to consume these high-calorie foods, and missing out on higher levels of satiation (fullness), but we're putting our health and longevity at risk.

Despite efforts to lower calories and restrict higher calorie fats and proteins in North America, obesity has nearly tripled. It appears we've been listening to the message, but we're clearly not getting the result. For instance, take a look at the change in % of food 'type' from 1965 to 1991 in teenagers in the U.S. (11-18 years):

	1965	1977	1989-1991
Total Energy (mJ)	9.92	8.78	8.77
% from fat	38.7	37.0	34.3
% from carb	46.3	47.1	51.4
% from protein	16.1	16.7	15.4

Total calories, fat and protein have all decreased, yet obesity has steadily increased over this same time period. This is because it's not the number of calories in a meal, it's the quality of those calories. There are specific foods that build muscle and burn fat, while supporting our health and longevity. Unfortunately, conventional wisdom tells us to exclude these foods if we're attempting to get in shape. The long-term affect of such an approach leads to a consistent struggle to get fit and remain disease-free.

Calorie Restriction = Unhealthy

Failing to provide our body with adequate nutrients causes deficiency and degeneration. For instance, by limiting fats because they are the highest calorically (9kcal vs. 4kcal in carbohydrates and protein) we inhibit the absorption of essential fat-soluble nutrients (A, D, E, and K) and the synthesis of key steroid hormones (testosterone, estrogen, androgen). Our body needs these nutrients to manufacture, repair, and refurbish our bone, tissue, and cartilage, and the cells of the heart, brain, and liver. Over time, failing to provide this ongoing nutritional support leads to deterioration, and cell death and damage that is associated with aging and disease.

When food is scarce, mammals utilize the limited supply of energy they have to survive, forcing other systems to go dormant. Research has suggested that when food and nutrient supply, or caloric intake, is inadequate to meet metabolic demands, the reproductive system can suffer, leading to puberty and development delays, ovulation suppression, testosterone reduction, and an increased risk of infertility. It also harms physical strength and performance, especially when the reduction in calories is excessive.

You may be fooling the scale (and yourself) in the short-term, but you will not sustain the weight loss, and in the long-run you're harming your health. The muscle loss, hormone disruption (for fat storage and appetite), and decreased metabolic rate from calorie restriction diets make maintenance and

future performance in body composition more challenging than it has to be.

“Vegan and vegetarian children often fail to grow as well as their omnivorous cohorts despite apparently adequate intakes of amino acids and nitrogen.”

— Dr. Loren Cordain

MISTAKE #2

Limiting or Avoiding Animal Protein

Generally, the foods highest in calories are the ones that provide the highest benefit. When you put nutrient dense food in your body, you get superior performance throughout the day. Similar to premium fuel in an engine, you also prevent future repair in the long-term. On the other hand, while cheap low-calorie, or low nutrient, foods may get you through the day, they increase your risk of future breakdown. To best illustrate the consequences of restricting or avoiding a premium fuel like animal protein, we'll take a look at vegetarians. Seeking only plant-based protein alternatives leaves non-meat eaters malnourished, with inadequate amounts of essential fatty acids (omega-3), vitamins (D, B12, E, A) and several essential amino acids. When foods are 'essential' it means they can only be acquired in the diet. Therefore, if you're not eating foods that have them, you're not getting them!

This lack of adequate nutrition from animal source foods leads to less muscle mass and an increased risk of degenerative disease. As mentioned in Mistake #1, our muscle mass determines our metabolic rate, but it also influences our long-term health. Limiting animal protein may only lead to minor deficiencies (like anemia) in the short-term, but this can quickly develop into osteoporosis, and Alzheimer's as we age.

Humans Need Animal Protein

Although I will make my points using history, science, and anthropology, I prefer to start this section by simplifying the subject and thinking logically.

Could you kill an animal with a knife, rock, or even your bare hands?

The truth is, not a lot of us could. Not only because we've never had to but

because we know it would be challenging, physically and psychologically. So, if we are perfectly capable of surviving on roots, shoots, nuts and berries:

> *What drove the human beings before us to track and kill an animal?*
>
> *What gave them the desire to make a spear and risk their life battling a saber-toothed tiger or wooly mammoth?*

I'd say the innate need for the essential nutrients, amino acids, and fats from animal flesh. They recognized that this food source was a necessity in providing their family with the essentials of life. Failure to consume meat leads to nutritional deficiencies just like it did 1.5 million years ago in our hominoid ancestors.

My research and experience has taught me that the decision to eliminate or replace animal protein is the biggest mistake one can make in an effort to improve their physique or long-term health. There are 'other protein options,' but they are incomplete, and lack the essential vitamins, fatty-acids, minerals, and amino acids required to remain strong, energized, and disease-free. There are many that will survive without eating meat, but they definitely will not thrive. Sadly, those surviving without animal protein may not recognize the negative effects for 3 months, 3 years, or until it's already too late.

Plant Protein Does NOT = Animal Protein

There's an endless supply of books from former vegans sharing their personal story of a slow decline in health, and their plea to confused vegetarians to change their ways. It may be difficult to open your mind to a carnivore like me, so if you're looking for more in depth information take a look at two of my favorite reads:

> *The Vegetarian Myth and The Whole Soy Story.*

Surprisingly, a lot of the nutrition experts of today, are former vegetarians, like Chris Masterjohn and Robb Wolf, who have the desire to share their story to make sure others don't make the same mistakes.

Arguably the biggest, and most common threat from a reliance on plant source proteins is the risk of B12 deficiency, which can only properly be obtained from animal source foods. B12 can be especially finicky when it comes to absorption, as proper stomach acid (hydrochloric acid and the

intrinsic factor) is required for sufficient breakdown and uptake. It's not just a lack of B12 containing meat, but rather the continuous decline in stomach acid secretion because of inactivity. When animal protein is finally consumed, the underactive stomach secretes less acid and can't effectively break down the food to access the nutrients. This leaves non-meat-eaters with less absorption of essential nutrients from animal source foods. Sadly, the digestive discomfort experienced when low-mat eaters finally decide to eat meat gives many the false reassurance that they shouldn't be eating it. B12 deficiency is an extremely common diagnosis for females, especially young teenage girls, along with iron deficiency, as most of them don't eat nearly enough animal protein. Sadly, other than low energy, many won't recognize the symptoms or negative impact of deficiency until it's too late. A lack of B12 is associated with a shrinking brain, and accelerated aging rate.

Anemia, or low-iron, is said to be the most common nutritional deficiency in North America. I believe this is largely influenced by a universal fear of meat. Heme (or ferrous) is the best iron source available to us as human beings and it's the most absorbable. Unfortunately, for those limiting or replacing animal protein, heme iron is only obtainable from meat, and is more absorbable when meat is present in the meal. This topic is especially important for menstruating females, as they're experiencing significant monthly blood loss and tend to eat less red meat in general.

Omega-3 essential fatty acids (DHA & EPA) are the third source of deficient nutrition in a diet lacking animal protein. Plant, or non-meat protein options only contain ALA, which has to be successfully converted to DHA to supply any benefit. Unfortunately:

> Attempting to raise blood DHA status with strictly an ALA source is nearly impossible!

Similar to B12, a lack of DHA is associated with declining cognitive and behavioral performance. As you'll learn in Mistake #3 and #5, the flawed advice for North Americans to restrict saturated fat in favor of plant oils (omega-6s), inhibits the ALA conversion even more. For vegans this is of extreme concern, as most consume no saturated fat and rely heavily on plant protein sources that are high in omega-6 polyunsaturated fats.

> The non-meat omega-3, ALA, has been shown to raise prostate cancer, while the animal source

variety (DHA & EPA) lowers it!

Believing that tofu, quinoa, soy, pinto beans, and brown rice can give you everything that animal protein provides, is an extremely unwarranted mindset. This was illustrated in the Rancho Bernardo Study from 2002, that looked at the consumption of different types of protein in 970 men and women between 55 and 92 years of age. Researchers determined that animal protein sources were positively correlated with bone mineral density, while vegetable sources were negatively correlated. Another study compared the health of 2 prehistoric populations living in the same area but with very unique diets. The Hardin Villagers, lived mainly on corn, beans, and squash, and the hunter-gatherers (the Indian Knoll), mostly meat, fish, and wild fruit. After researchers analyzed the health of both populations, this is what they found:

- Longer lifespan and lower infant mortality (from malnutrition) for the hunter-gatherers
- Common iron, calcium, and protein deficiencies in the villagers – none in the hunter-gatherers
- No bone malformations or cavities in the hunter-gatherers, versus an average of 7 for the farmers

Soy = Toxic

For many years, soy was regarded as the 'vegetarian answer' to a diet lacking muscle-building protein. Everyone loves stats, so here are 4 of my favorites:

> *Men who consumed the equivalent of one cup of soy milk per day had a 50% lower sperm count than men who had none.*
>
> *In 1992, the Swiss Health Service estimated that two cups of soy milk per day provides the estrogenic equivalent of one birth control pill.*
>
> *Infants exclusively fed soy formula receive the estrogenic equivalent (based on body weight) of at least 5 birth control pills PER DAY!*
>
> *A Study on the brains of 4000 Hawaiian Men determined that men who ate the most tofu had smaller brains and double the risk of developing Alzheimer's.*

Those are the statistics for a food regarded as 'healthy' and superior to animal products for disease prevention. The reality is, a safe amount of soy is only 36g per day, and despite what you've been told, this is higher than the average amount eaten in Japan. Ask a Japanese person and they'll tell you

they don't eat much soy, and treat it more like a condiment rather than a protein source.

> In the 1930's in China, total soy consumption was 1.5% of calories, while pork was 65%!

A 1998 study in Taka Yama City, Japan, reviewed soy consumption from 1242 men and 3596 women, and determined that the daily intake averaged 3-13g/day for men, and 3-11g/day for women. A single block of tofu contains 250g of soy, which blows the upper tolerable limit for safety out of the water.

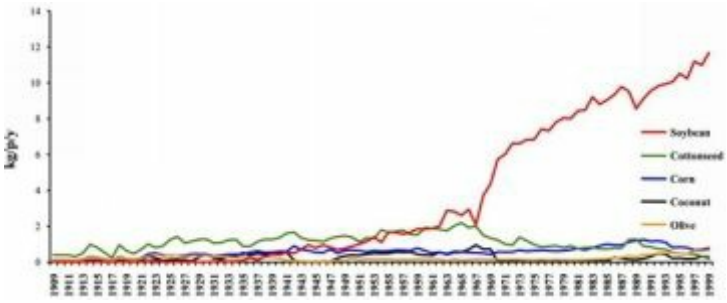
Relying on a toxic substance as your main or dominant protein source can have a highly damaging impact on your health. Unfortunately, the main argument for consuming soy usually stems from the assumption that the Japanese eat soy instead of beef, and that's why they have lower heart disease rates than North Americans. What you'll learn shortly is that saturated fat and red meat are not to blame for heart disease, and promoting soy as a health food because it lowers cholesterol is a misguided message to begin with. Furthermore, the reason you think eating soy like the Japanese will lower your risk of heart disease is because that's what you've been told by food marketers! Before the end of this book, my hope is that you will understand how backwards and inaccurate this advice really is.

Soy = Disrupted Hormones

Unfortunately for soy, it gets worse. As perhaps you recognized while reading the 4 stats at the beginning of this chapter, soy has a negative hormonal impact on the body. Although it's a typical reaction to think of estrogen as a female hormone, this discussion is applicable to both sexes. Phytoestrogen is a plant hormone found in soy that mimics the natural human/animal hormone 'estrogen' in the body. These phytoestrogens are harmful substances that pretend to be estrogen and bind to estrogen receptor sites. Arguably, these estrogen mimickers, also found in cosmetics, pesticides, plastics, insecticides, and environmental pollutant, are a contributing factor to the estrogen-dominant cancers that now seem to be dominating our lives in North America.

Our largest intake of phytoestrogens comes from soybeans and other seed oils (sunflower, cottonseed, safflower), which as you'll discover in Mistake

#5, are called polyunsaturated fatty-acids (PUFAs). They are one of the unfortunate consequences from our direction towards low-fat diets. Sadly, although toxic to humans and livestock, the most common use of soybeans in North America is as a vegetable oil additive in packaged foods and animal feed.



> "The estimated per capita consumption of soybean oil increased more than 1000-fold from 1909 to 1999."

One can see the immediate negative impact this 'fake estrogen' can have on men, as it competes with testosterone for receptor sites and can display itself in the form of 'man-boobs,' and other 'non-manly' reactions. In women, an estrogen overload may be less obvious, although it has an equally harmful effect on body composition and disease risk. Over time, excess estrogen can lead to infertility, breast and prostate cancer, and endocrine disruption. In a nutshell, this toxic substance, that originally evolved in plants as a defense mechanism to inhibits reproductive health, is able to live in your body and cause huge problems.

Isoflavones are also found in soy, and like phytoestrogens they interrupt regular hormone functioning. The production of thyroid hormone, which usually regulates how the body uses energy and grows, is disrupted by isoflavones. We also see a disturbance in the thyroid's sensitivity to other hormones. As Dr. Kaayla Daniels writes in her book, The Whole Soy Story:

> "A Japanese study at the Ishizuki Clinic found that just 35mg of isoflavones per day caused thyroid suppression in healthy individuals in just three months….a glass of soy milk contains about 45mg."

What's most interesting about Dr. Daniels research is that the isoflavones

produce a hyperactive thyroid at first, which means energy levels and metabolic rate elevated. However, over time the isoflavones facilitated a hypoactive thyroid, which leads to fat storage, hair loss, and poor energy. This could explain why some mention feeling fantastic when replacing other proteins with soy protein, or adding soy to their diet. Clearly, the experience is short-lived.

Although there have been attempts to instill the benefits of soy in our minds from corporations, the media, and even the government, it's clear that the evidence supporting the negative impact of regular consumption is far superior. The reality is, the U.S. economy and many BIG businesses, like Monsanto, have a lot invested in the success of soy.

> In the year 2000, the U.S. produced 75 million tons of soybeans, and exported nearly 30% of that.

Similar to the promotion of whole grains as a 'requirement' in a healthy diet (discussed in Mistake #7), we're being misled in an effort to protect economic and corporate interests. For example, research posted in the New England Journal of Medicine in 1995 concluded that the consumption of soy protein lowers cholesterol. The study was financed by a corporation (DuPont Protein Technologies) that produces and markets soy through a sister organization (The Solae Company).

Legumes = Decreased Absorption & Intestinal Health

Soy is not the only legume that can be harmful to our health when over-consumed. Like grains, nuts, and seeds, legumes come equipped with plant defenses that are designed to prevent consumption. Unlike humans and animals, plants don't have a distinct security system that immediately resists or inflicts harm on initial contact. However, they are quite capable of provoking considerable damage over time. This slow, and many times unnoticeable, deterioration becomes increasingly prevalent when consumed frequently and in large quantities.

The first problem with legumes is that they contain phytic acid (or phytates), that have been shown to reduce the absorption of magnesium, calcium, iron, zinc, and B12. A vegetarian will tell you that phytates can be removed with proper preparation procedures (sprouting, soaking, draining, and boiling), but

research tells us that only 50% of phytates are removed with an 18hr soak. Furthermore, it's highly unlikely that most non-meat eaters practice such a tedious process given the North American norm of prioritizing speed and convenience over quality. The reason we eat is to nourish our bodies with the vitamins, minerals and essential fats and proteins we require to live, so absorption is pivotal. Ironically, the minerals we fail to absorb in plant-based alternatives are the same ones excluding if we fail to consume (and absorb) animal protein. My question is:

> *Why go to such extremes to make a food edible that would otherwise not be, when perfectly safe and more effective foods are available?*

Without getting too scienc-y, legumes are also high in lectins, which can cause intestinal damage, and increase ones risk of an autoimmune disease, like IBS, Crohn's, or Colitis.

> "…lectins can interact with a variety of other cells in the body and are recognized as the major anti-nutrient of food."

Lectins can also bind to insulin receptors. This increases our risk of something called leptin resistance. As we've already discussed, adequate leptin levels are critical in determining our metabolic rate, and suppressing fat storage and hunger hormones. If our cells become resistant to leptin we become more prone to over-eating and under-burning.

Don't get me wrong, other foods have natural defenses as well, and many foods other than beans are high in lectins. However, problems arise from the over-consumption and over-reliance on these foods. A few soaked beans once in a while isn't going to kill you, but 1 or 2 meals with beans every day and you'll definitely experience the negative impact on your health.

Legumes = High in Carbohydrates

The other reason legumes are an inferior protein source is that they are very high in carbohydrates. In the chart below of the most commonly consumed legumes, the first number is the glycemic load (blood sugar response), and the second number is the total carbohydrates in only 1 cup:

Pink	68:135	**Adzuki**	62:124
Mung	59:130	**Black**	57:121
White	56:122	**Pinto**	55:121
Chickpeas	52:121	**Small White**	47:134
Great Northern	46:114	**Navy**	44:127
French	42:118	**Yellow**	40:119
Cranberry	40:117	**Kidney**	37:110
Fava	28:87	**Baked Beans**	21:55
Soy	19:56	**Lima**	13:31

As you'll discover shortly (Mistake #6), excess daily carbohydrates are the driving force in body fat gain. Even the lowest carbohydrate values on this chart (Lima Beans = 31g) are far too high for 1 serving at 1 meal. Although legumes appear to be a viable source of protein for non-meat eaters, when there is an over-reliance on this food as your protein source at most meals, it negatively affects your body composition.

Not ALL Meat is Created Equal

Somehow, as I sit here in 2013 I am handed a new diet book from my brother where the author outlines the importance of avoiding animal foods to improve overall health and lose weight. Yet when I read his support for why limiting animal products is 'fundamental' his points are far from relevant to his recommendation. As per usual, his suggestions carry no reliable scientific support, and he continuously refers to animal protein as 'factory farmed' meat, and classifies meat-eating as pizzas and cheeseburgers.

> *Not all meat is industrially produced, grain-fed, and pumped with antibiotics, just like not all vegetables are Genetically Modified (GMO).*

Grass-fed beef, free-run poultry, and wild fish are easily attainable with a little effort and a minor budget adjustment. In fact, selecting higher quality meat is usually more satiating (filling), meaning you will likely eat less and balance or potentially lower your grocery costs. Animal protein is essential to your survival, and can be obtained from local farmers with respectable production and treatment processes.

There also seems to be a tendency to group red meat and processed meat together, even though unprocessed red meat continues to show no association with an increase in heart disease, cancer, and mortality. For example, a 2009

study concluded that:

> "A high consumption of red meat was related to higher all-cause mortality, and the association was stronger for processed meat. **After correction for measurement error**, higher all-cause mortality remained significant only for processed meat."

Processed meat is clearly the issue, just like GMOs and pesticides are in fruits and vegetables. When you're comparing one food group to another, you can't compare the very best variety in the food you're in favor of, with the worst variety of the food you're against. That's like saying your hockey team is better because your 1st line center is better than the other team's 3rd line center. If that's the case, the plant-based proteins we should consider when comparing them to animal protein, should be the genetically modified varieties. Processed sausages, bacon, and cold cuts, and how the meat is prepared (whether burnt or charred), are the only time correlations between meat and cancer can be drawn.

We all want to avoid factory-farming, processing, GMOs, pesticides, antibiotics and any other ingredients that harm our health. When comparing dietary choices it's essential to look at the best or equivalent options of each.

Not ALL Meat-Eaters are Created Equal

Vegetarians often refer to The Seventh Day Adventists (a vegetarian Christian group) as an example of low cancer and mortality rates from avoiding meat. The problem is, it's unfair to compare this group to a meat-eater in regular society, as they are a secluded group that doesn't smoke or drink, and likely doesn't engage in other life shortening lifestyle choices. A meat-eating equivalent to this group would be the Mormons, who follow similar principles with respect to smoking, drinking, and lifestyle choices. When you look at the cancer, heart disease, and mortality rates for the Mormons, here's how they compare to the U.S. Average:

- 22% Lower Cancer Rate
- 34% Lower Mortality Rate from Colon Cancer

Furthermore, despite the Seventh Day Adventists lifestyle habits lowering their risk, they seem to experience higher rates for other cancers - Hodgkin's disease, malignant melanoma, brain, skin, uterine, prostate, endometrial, cervical, ovarian, and colon.

Monocrops = Murder

We are repeatedly told that "grains can feed the world." However, what many fail to recognize, without revisiting the dietary consequences of a reliance on plant based proteins, is that wheat, corn & soy are Monocrops. Essentially, a monocrop is planted, grows, is consumed, and strips the earth of its ability to reproduce. Monocrops increase the rate of soil erosion from ploughing, and decrease the water and nutrient content of the soil. Unfortunately, once the soil is destroyed in one area, the crop field must occupy a new location (with fertile soil), and significant time and resources are needed to restore the previous site.

> "A nation that destroys its soil destroys itself." Franklin D. Roosevelt

When you consider the amount of irrigation needed to water these crops, and the land that it occupies, the monocrop footprint is significant. This drives animals out of their homes, and uses up the resources they need to survive.

> It's suggested that 90% of the Northern US Prairies have been taken over by monocrops.

We are damaging our land and using up our resources to grow a food that may fill us up, but will not provide proper nourishment. Conversely, 1 cow can nourish 1 human for an entire year, and the cow's relationship with the earth is a renewable one:

> *Soil – Grass – Cows – Humans – Soil (Repeat)*

A cows stomach allows it to consume grass and digest cellulose. We, as humans, cannot digest grass and therefore look to the cow to consume grass and convert it into digestible fat and protein (it's body). The cow is not only providing humans with essential protein and fat, but they're ensuring the health of the grass & soil by:

> ***Grazing*** *- keeps the grass short, allowing it to re-grow properly.*
>
> ***Fertilizing*** *– bacteria in the stomach of the cow feed on the grass and the cow consumes the bacteria for growth. When the cow digests and eliminates waste, it provides manure to the soil, which feeds the grass, and fertilizes it with nutrients to grow.*

Crops, on the other hand, are occupying and destroying the land, sucking water reserves dry and not promoting regrowth.

The environmental reasoning for not eating meat is severely flawed, and the moral reasoning may be even worse. More importantly, both objections have nothing to do with our ultimate goal, and your reason for reading this book:

> A better body composition and a longer and healthier life.

Animal Protein = Healthier Body & Longer Life

We need meat to thrive, and as I'll continue to show you, it's an essential requirement for obtaining a lean, muscular physique. Science has proven that an increase in your consumption of animal products will increase your longevity, whereas the vegetarian diet has been consistently correlated with an early grave. Just look at the Hindus in Southern India, who have the lowest life expectancy in the world because of a lack of animal protein in their diet. When looking at the general population, vegetarians have equal rates of atherosclerosis, and higher mortality rates. In fact:

> *Meat-eating men living 4% longer, and meat-eating women live 32% longer!*

“All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as self-evident.”

— Arthur Schopenhauer

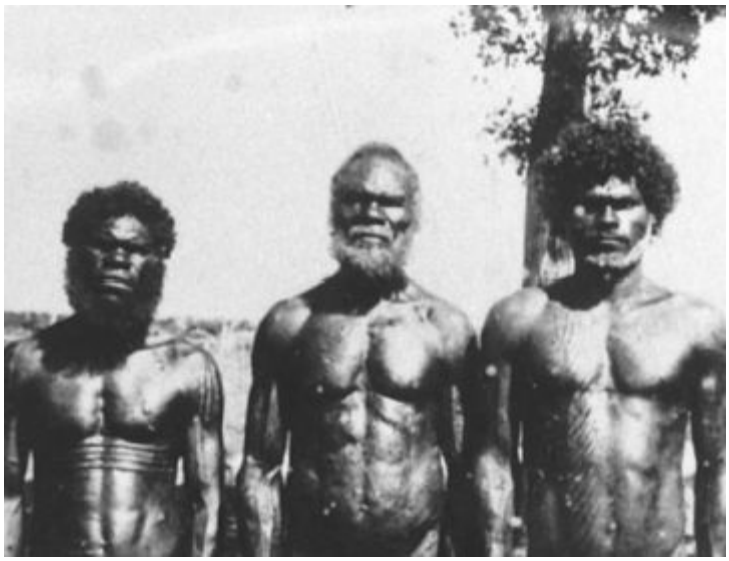
MISTAKE #3

Blaming Saturated Fat For Heart Disease

Our hunter-gatherer ancestors, from hundreds of thousands of years ago, thrived averaging 50% of their total calories from animal foods.

> "The prehistoric humans of North America frequented animals such as camel, bison, mammoth, mountain sheep, bear, wild pig, beaver, elk, mule deer, sloth, and antelope, what we'd refer to as 'very fatty meats' today."

When you analyze the tissue of these foods, you'll notice a very high percentage of saturated fats, and an extremely low level of polyunsaturated fats. It's important to note that polyunsaturated fats are what we've been told to increase over the last 50 years to replace saturated fats. The 'experts' have told us to restrict or eliminate saturated fats to prevent obesity and disease, even though the diseases plaguing North Americans over the past 10,000 years were virtually non-existent in hunter-gatherer societies. Dr. Loren Cordain, a top global researchers in the area of evolutionary medicine suggests that there was no cancer, diabetes, heart disease, and even near-sightedness and acne in these men and women. As for obesity, here's the standard physique of those eating 50% of their total calories from animal foods high in saturated fat:



Hunter-gatherers were also taller than most Modern Americans, and without the bone malformations and cavities associated with poor nutrition.

> *"But didn't Neanderthals and Hunter-Gatherers have a short average life expectancy?"*

Yes, but childhood death was more common which skewed the average, and those of the Paleolithic Era had to deal with an inferior shelter, a long-list of hungry predators, and weren't blessed with the convenience and luxury of a pharmacy down the street. Despite having no heath care, one could argue that the infant mortality rate was surprisingly low, and the life expectancy relatively high, as 10% of them lived into their 60's.

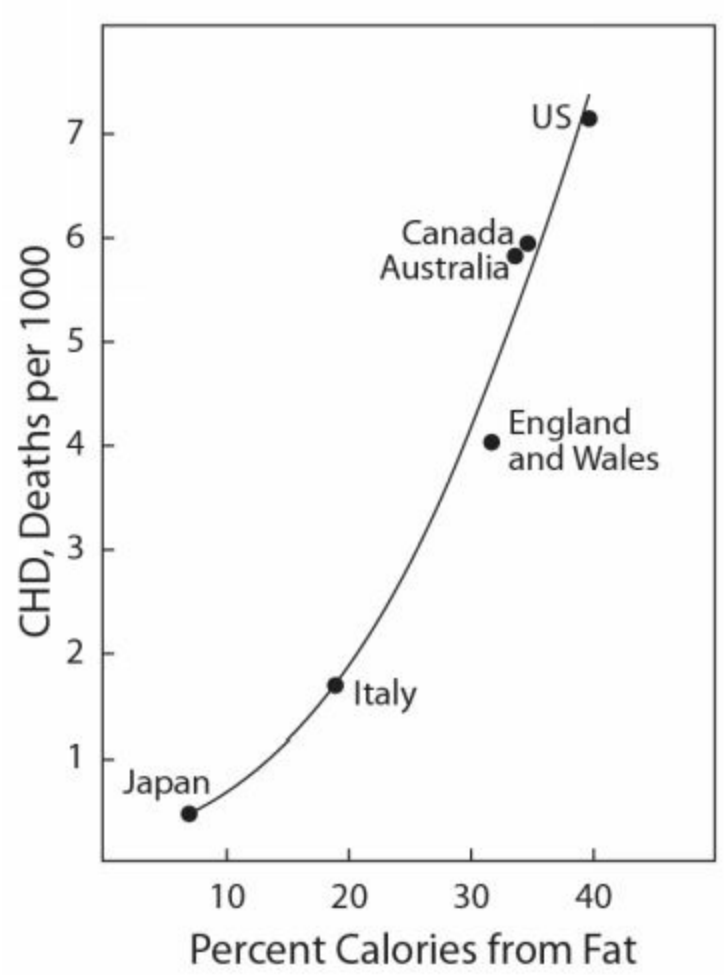
> *Even if we are living longer now, it's clear that less and less of those years are 'disease-free!'*

Science suggests that genetically we have changed very little over the past 40,000 years, with evidence that we only differ by 0.02% at most. What we seem to forget is that the last 10,000 years makes up an extremely small amount of time in human history. Robb Wolf puts it perfectly when he relates our human history to a football field, saying that:

> "…if we started walking from one end-zone toward the other, we could walk 99.5 yards, and this would represent all of human history except the last 5000 years or so."

Saturated Fat Research = Flawed

The recommendation to lower saturated fat started in 1953 when Dr. Ancel Keys supplied results from his research comparing dietary fat intake and heart disease in 7 countries. He concluded that that Americans eat the most fat and have the highest rate of death from heart disease, and the Japanese eat the least fat and have the lowest rate of death from heart disease.



I suppose Ancel was trying to make a name for himself as he failed to mention that his research was actually performed on 22 countries! When all 22 countries were included, Dr. Key's results showed no significance. When breaking down his data the lack of association between countries is almost embarrassing:

> *Finland and Mexico ate similar amounts of fat, yet the death rate from heart disease was 24 TIMES higher in Finland!*

Unfortunately, once this research was accepted as proof, future experiments

continued to cite Key's research and create somewhat of a snowball effect. The originally tainted science was quickly perceived as 'fact,' and the government and health associations started making serious claims:

> "High-fat foods are causing coronary heart disease and other deadly problems in Americans, and these high-fat foods are just as dangerous to the public as cigarettes. The depth of the SCIENCE BASE underlying its findings is even more impressive than that of tobacco and health in 1964."

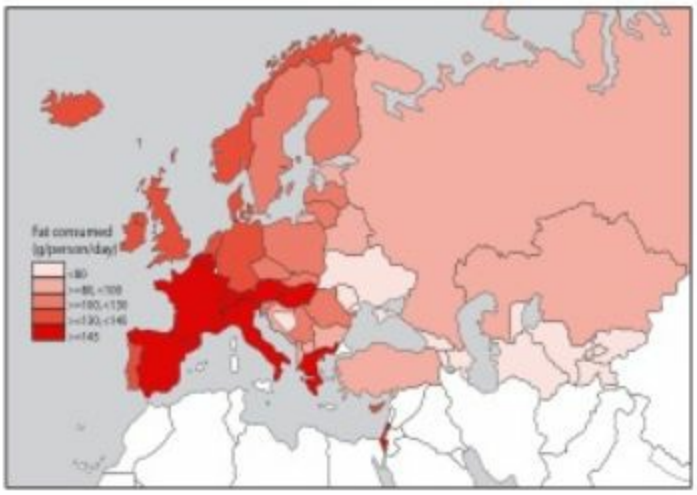
Saturated Fat Does NOT Cause Heart Disease

Similar country comparison research has been done since Keys falsified study. For instance, in 1998 in the journal Nutrition, researchers looked at the average intake of saturated fat in 41 European countries and compared it to the risk of death from heart disease.

> The countries with the HIGHEST saturated fat intake had some of the LOWEST death rates from cardiovascular diseased, while the lowest intakes (like Georgia and Azerbaijan) had some of the highest rates.

Here's the map of cardiovascular deaths (highest = dark):

Compared to the map of fat intake (highest = dark):



Although it's been proven time-and-time again, but somehow never properly acknowledged, there is no connection between saturated fat intake and heart disease:

> Switzerland, Belgium, and France eat the most saturated fat (>15% of total calories), but have the lowest heart disease.
>
> Japan and Israel have nearly doubled their intake of animal fat since the end of WWII, yet heart disease has fallen consistently.
>
> France and Finland consume similar amounts of fat, yet one has 3 times the heart disease.
>
> India used to have a very low incidence of heart disease, and since they replaced coconut oil and ghee (clarified butter) with alternative fat sources, they've become one of the highest!

I know it's still hard to swallow. It seems so simple to believe that fatty meat and butter are to blame. We can all picture a big slab of butter-coated red meat clogging up our arteries. However, saturated fat is not to blame:

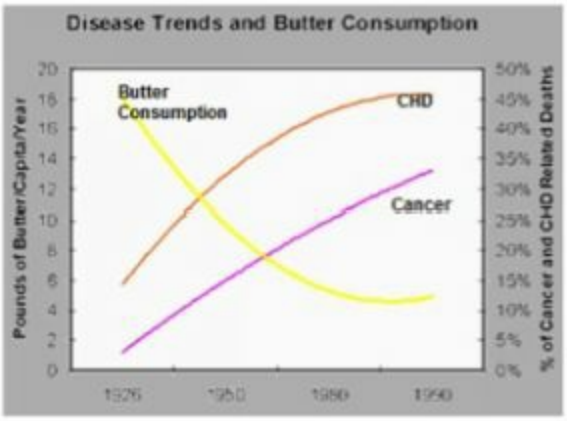
> As recent as 2009, there was a review of 21 studies on saturated fat intake, analyzing results from 350,000 people, and all concluded NO ASSOCIATION with heart disease!

In fact, there's ample evidence that increasing saturated fat intake lowers heart disease.

Even though the evidence is readily available, many North Americans still believe we need to lower our fat intake because dieticians, governments, and doctors are still making claims like this:

> “Saturated fats and dietary cholesterol have no known beneficial role in preventing chronic disease and are not required at any level in the diet." Food and Drug Administration, 2002

Clearly we haven’t benefited from the advice to lower saturated fat, as since the low-fat recommendation were introduced, obesity rates have doubled and heart disease rates tripled in the U.S. We’ve lowered fat intake nationally, yet we’re fatter than ever, and heart disease, diabetes, depression, and cancer rates have skyrocketed. In the year 1900 we averaged 18lbs of butter per person per year, and in 1995 we had less than 5lbs, yet look at the heart disease and cancer rates:



"Many of today's physicians, originally trained decades ago, don't have a firm grasp of nutrition and its effects on your health…My hope is that our next generation of doctors will be better equipped to swing the pendulum to the side of prevention rather than focus so much on treatment."

— Dr. David Perlmutter

MISTAKE #4

Thinking Cholesterol Causes Heart Disease

The misleading advice on cholesterol stems from similar beginnings to the misleading research on fat we just discussed. In 1856, a German scientist named Rudolf Virchow theorized that blood cholesterol levels are associated with the development of heart disease. With the added support from Ancel Key's tainted science on saturated fat, our increase in heart disease could finally be explained:

Saturated Fat = High Cholesterol = Heart Disease

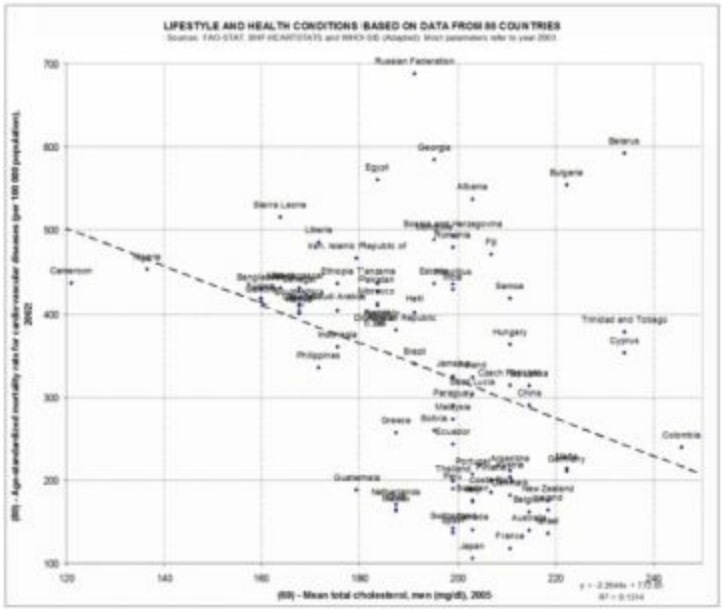
It all made sense, saturated fat raises total cholesterol and this rise in cholesterol is what causes heart disease. Nearly 98% of doctors were on-board with this 'lipid hypothesis' in 1978, and in 1984 the National Institute of Health gathered 14 experts who voted unanimously that lowering cholesterol levels reduces coronary heart disease and risk of heart attack. The lipid hypothesis became fact and unfortunately the majority of the population still believes it today.

High Cholesterol Does NOT = Heart Disease

Despite the support from the medical community, there is significant evidence providing proof that high cholesterol levels do not cause heart disease. As many well-respected doctors and scientists have pointed out, the original data supporting the lipid hypothesis, and countless experiments since are based on "inaccuracies, misinterpretations, exaggerations and misleading quotations in this research area." Furthermore, any scientific support proving a lack of association between mortality and heart disease have been conveniently excluded, and research suggesting a correlation between cholesterol and heart disease are heavily promoted. This shouldn't come as a

surprise considering the billions of dollars in profits from the sales of cholesterol lowering statin drugs.

If you're like me you're a visual learner, so let's take a look at a study from 2005 study showing the Total Cholesterol and Risk of Heart Disease in 86 countries:



Clearly there's no correlation, and if you look hard enough you can draw an association in favor of Higher Total Cholesterol. The other notable research is from the Lyon Diet Heart Study, which attempted to lower heart disease risk using a diet-intervention instead of drugs (statins) on individuals who had already experienced 1 heart attack. Since saturated fat was the alleged contributor to heart disease at the time, one group was put on a low-fat diet while the other group was told to follow a low carbohydrate diet with no restriction on fat.

> In only 6 weeks, the group on the low-carb plan had cut their mortality risk in half (down 56%), and reduced their heart disease risk by 72%!

But the most intriguing part is that Cholesterol levels did not budge!

> *If cholesterol levels determine heart disease risk, how is it possible to lower your risk of heart disease by 72% with no reduction in cholesterol?*

The reality is, half of the people with heart disease have low cholesterol, and

half the people with high cholesterol have perfectly healthy hearts. Cholesterol has NO ASSOCIATION with heart disease, and study after study will continue to prove this. However, as long as there's billions of dollars riding on the alternative, we will likely continue to be sheltered from it.

Dietary Cholesterol Does NOT = Blood Cholesterol

Somewhere along the line the assumption was made that the cholesterol you eat raises the cholesterol in your blood. Perhaps it has something to do with the foods highest in cholesterol also being high in saturated fat. It was demonstrated as early as 1937 that dietary cholesterol has very little effect on blood cholesterol, and this fact has never been refuted. However, many still believe that an egg white omelet is 'healthier' for them than eating the yolk. Limiting foods with cholesterol in our diet in an attempt to lower caloric intake and risk of heart disease is a huge mistake. Other than accomplishing no change in blood cholesterol, it puts our long-term health at risk. Our cells, especially those in the brain, require new cholesterol and essential fats for proper functioning. We utilize 1200-1800mg of new cholesterol each day to add stability to membranes, and promote the proper synthesis of hormones.

The Framingham Study from Harvard University Medical School is a perfect example of blood cholesterol remaining unaffected by cholesterol ingestion. Despite dietary intakes that varied by as much as 400mg, the researchers found very similar blood cholesterol levels:

	Cholesterol Intake mg/day	Low Intake mmol/l	High Intake mmol/l
Men	704 ± 220.9	6.16	6.16
Women	492 ± 170.0	6.37	6.26

In fact:

> 80% of the individuals from the Framingham Study that went on to develop heart disease had the same total cholesterol as those that didn't.

Similarly, the popular Tecumseh Study of 1976 looked at dietary cholesterol intake and total blood cholesterol levels and concluded that:

> Less dietary cholesterol produced higher blood cholesterol levels.

Perhaps the most impactful research study was the Multiple Risk Factor Intervention Trial (MR FIT) from 1982 that took over 360,000 participants and spent $115 Million. To see if dietary cholesterol and saturated fat had any impact on heart disease, the experiment had participants reduce their by 42% and 28%, respectively. Not only was heart disease risk not reduced, but:

> *Blood cholesterol levels barely moved!*

Cholesterol = Beneficial NOT Harmful

When we eat more cholesterol our body simply manufactures less or absorbs more. By getting adequate amounts in our diet, we either give our liver a break from assisting in cholesterol manufacturing or we get more of the substance that acts as a building block for cell membranes and a precursor for important hormones (vitamin D, testosterone, androgen). Cholesterol also provides fuel to neurons that can't generate cholesterol on their own. Perhaps the biggest benefit from cholesterol is seen in the brain, as it contains 25% of the total cholesterol in the body. It is an antioxidant that supports cell membranes and facilitates communication and transmission of key nutrients and hormones. This is likely why we see cholesterol levels naturally increasing as we age to provide additional protection and nourishment for the brain.

Researchers at Boston University took 789 men and 1,105 women to test for a relationship between total cholesterol and cognitive performance - verbal fluency, attention/concentration, and abstract reasoning. Participants with good levels (under 200) according to the current recommendations performed poorly compared to those with levels regarded as 'high' (200-239) and 'very high' (>240). Likewise, a report from the National Institute of Health found the elders that do not have dementia or Alzheimer's had better memory function with HIGHER levels of cholesterol. The researchers write:

> "It is possible that individuals who survived beyond age eighty-five, especially those with high cholesterol, may be more robust."

Lower Cholesterol = Bad

Given all the support that cholesterol provides, I suppose it's not surprising that scientists are finding a deficiency in cholesterol and fat in diseased brains. Research is also suggesting an increased risk of neurological

disorders with lower cholesterol levels.

> A 2008 study from the journal Movement Disorders reported a 350% increased risk of Parkinson's Disease in participants with the lowest cholesterol.

Likewise, in the American Journal of Epidemiology in 2006, researchers from the Netherlands proved that higher levels of total cholesterol were associated with a decreased risk of Parkinson's. Various research studies have also determined a correlation between low cholesterol and depression:

> Scientists in a 1993 journal in the Lancet finding a 300% greater risk in the group with the lowest cholesterol, compared to the group with the highest.

Research from Sweden in 1997, and the Netherlands in 2000, came to the same conclusion, in both men and women. Sadly, a 2008 report in the Journal of Clinical Psychiatry found that:

> Those with a total cholesterol under 160, were 200% more likely to attempt suicide.

Although speculative, one could hypothesize that the increase in depression over the last 50 years is associated with our questionable efforts to lower cholesterol.

Unfortunately, it's not just our mental health, as low cholesterol has been linked to disrupted hormones, nutrient deficiencies, and even early death.

> A 2009 study that followed 4,500 U.S. veterans for 15 years, showed that those with low cholesterol had a 7-FOLD increased risk of dying.

This is more than likely because of the protection and support that cholesterol provides for cell membranes and the hormonal and nutrient deficiencies are not surprising, given that cholesterol is a precursor for steroid hormones.

> The average testosterone level in males is down 22% compared to 20 years ago!

An adequate intake of essential fats combined with a cholesterol lowering medication can seriously disrupt the production and transport of steroidal hormones, like testosterone. In spite of their prevalence, statin medications prescribed to lower cholesterol are known to diminish testosterone levels. This is likely why decreased libido is the most common complaint doctors

hear from statin users.

> Those on statins are more than twice as likely to have low testosterone.

Statins = Harmful to Health

Although cholesterol has very little to do with heart disease and having low cholesterol can be detrimental to your health, doctors continue to recommend statins to their patients. In fact, the standards for prescribing this pharmaceutical drug to lower cholesterol have been adjusted significantly over the last 30 years. Statins used to be suggested for someone with a total cholesterol level of 240 that smoked and was inactive. In the mid 80's, the second two risk factors were removed and doctors were able to prescribe cholesterol-lowering meds to anyone with a level of 200. It's now 180, and sadly:

> The American Academy of Pediatrics now suggests prescribing statins to 8 year old children, and recommends screening children as young as 2!

Remember, this is for a drug to lower cholesterol, which has 'NO ASSOCIATION' with heart disease. Furthermore, it's evident that this drug has been unsuccessful in doing what it was designed to do:

> "The incidence, per capita, of heart failure has more than doubled since cholesterol-lowering statin drugs were introduced in 1987."

The drugs designed to prevent heart disease don't prevent heart disease because the problem is not high cholesterol.

Aside from the over diagnosis and ineffectiveness, a recent review study identified over 900 research papers showing adverse effects from statin use (HMG-CoA reductase), including:

- Suppressed immune system
- Increased cancer risk
- Diabetes
- Liver damage
- Muscle degeneration
- Anemia
- Cataracts

- Neuropathy

Other than low testosterone, the most well-known side effect of statins is memory loss. Early death may be a possibility too, as a study in the American Journal of Cardiology followed 300 adults, determining that:

> Those taking a statin with the lowest LDL cholesterol levels had the highest mortality and those with the highest LDL cholesterol had the lowest.

A senior research scientist at MIT, Dr. Stephanie Seneff, has become world renowned for her work connecting statin use with Alzheimer's. She believes statins handicap the liver's ability to make cholesterol, prevent cells from making important antioxidants (coenzyme Q10), inhibit the transport of fatty acids and antioxidants (via LDL cholesterol,) and cause vitamin D and hormone deficiencies.

Monitor Triglycerides NOT Total Cholesterol

John Gofman, a University of California Medical Student, discovered in 1950 that there were circulating fat-like substances in the blood, called Triglycerides. He concluded that Total Cholesterol was a dangerously poor predictor for heart disease. Triglycerides that circulate in blood are created in the liver from excess carbohydrates. The majority of us have never been informed that our carbohydrate intake determines our triglyceride levels. Furthermore, that this marker is a much better predictor for heart disease than Total Cholesterol. As researchers from Harvard Medical School found:

> Those with High Triglycerides and Low HDL Cholesterol have a 6 times greater risk of heart attack, than those with Low Triglycerides and High HDL Cholesterol.

Ironically, our attempts to lower fat intake to prevent heart disease have contributed to increases in carbohydrate food sources, which has increased triglycerides and put us at a higher risk of heart disease.

The best markers of heart health appear to be the Triglyceride-to-HDL ratio, and the composition of LDL cholesterol particles. Although it's often referred to as 'bad' cholesterol, many are unaware that an adequate amount of LDL cholesterol is absolutely necessary, as it's primary role is to transport cholesterol to the brain. LDL cholesterol particles are benign when they're

big and fluffy, but become dangerous when small and dense. The second slice of irony is that the consumption of plant and vegetable oils (canola, corn, soybean, safflower) are what morphs your LDL cholesterol particles into the small dense variety. Meaning the saturated fats that we were instructed to replace were substituted with vegetable source fats and oils that raise the 2nd critical biomarker for heart disease!

The high carbohydrate and low-fat recommendations over the last 50 years have raised triglycerides, lowered HDL cholesterol, and converted big fluffy benign LDL cholesterol particles into small dense harmful ones. This has increased heart disease, obesity, and other diseases of degeneration and it all stems from the avoidance of animal protein and fat.

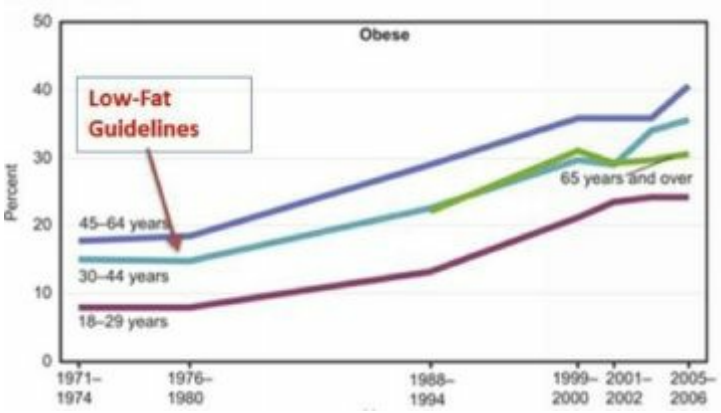
"*Man is a food dependent creature. If you do not feed him he will die. Feed him improperly and parts of him will die.*"

— Emanuel Cheraskin (1916-2001)

MISTAKE #5

Choosing The Wrong Fats

When you think about it, calorie restriction and low-fat eating go hand in hand. Fat has 9 calories per gram, while protein and carbohydrates only have 4. Reduce the food with the most calories, and you will lose weight. At least that's how most believe it's supposed to work.



Lowering our intake of saturated fat to prevent heart disease and restrict calories nearly tripled obesity over the last 40 years! Less fat meant more carbohydrates overall, and less animal source fats meant an increase in polyunsaturated plant source fats (PUFAs). Butter became margarine, coconut oil became canola oil, and sugar was added to replace the flavor lost in the fat. This adjustment was a dream for food producers, as they could now use cheaper oils and get support from the government to do so. Additionally, they could slap a 'low-fat' or 'fat-free' sticker on a bag of chips or box of cookies to give consumers the illusion that their product is healthy.

PUFAs = Heart Disease

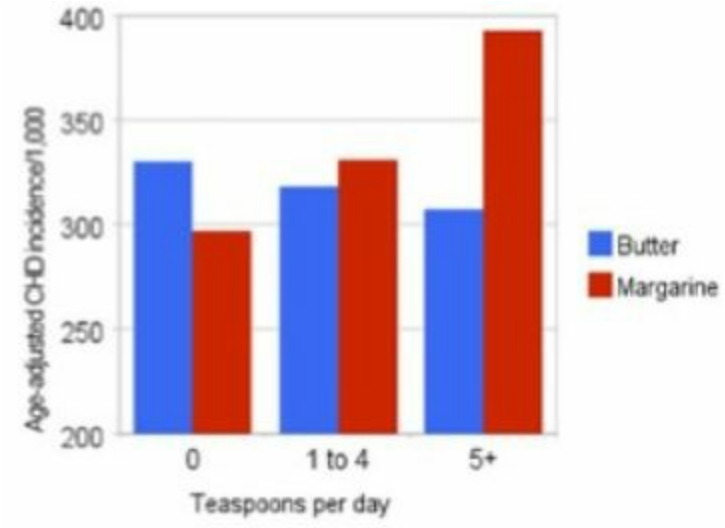
Replacing saturated fat with plant oils leads to heart disease by reducing the size of LDL cholesterol particles and decreasing HDL (Good) cholesterol. The high-incidence of heart disease in India we spoke about earlier, is largely because of a switch from saturated fats like coconut oil and ghee (clarified butter) to PUFA alternatives like peanut, safflower, sesame, and soybean oils. Add the excessive carbohydrates from 'low-calorie' whole grains and you've now added elevated Triglycerides to the mix. As we learned in Mistake #4, Triglycerides and small dense LDL particles are the biggest risk factors for heart disease.

> *In an attempt to eliminate the one-thing we were misled to believe was causing heart disease (saturated fat) we introduced a detrimental alternative.*

A 2004 study from the Harvard School of Public Health studied fat intake and it's impact on atherosclerosis (narrowing of the arteries). The researchers concluded that:

> Those who ate the most PUFAs experienced the worst progression, while those eating the highest amount of saturated fat reversed the atherosclerosis!

Likewise, a 1993 study in the Lancet showed that a switch from Butter to Margarine increases heart disease:



Fats from animal sources are better for our health and body composition, and should be recommended not avoided or replaced. These are the same fats we've relied on for over a million years to support our body and brain with the essentials.

PUFAs = Oxidation & Inflammation

Canola oil, soybean oil, cottonseed oil, sunflower oil, safflower oil, peanut oil, and corn oil, are all polyunsaturated fatty acids (or PUFA's). They're used regularly in restaurants and in the preparation of pre-packaged products because of their affordability. The biggest problem with PUFAs is that they're very unstable and especially susceptible to heat, light, and oxygen. Even though polyunsaturated fats are commonly used for cooking, this is potentially the worst use for them as they oxidize under heat and form free radicals. Essentially, a free radical is a molecule with an unpaired electron that grabs an electron from another molecule. This not only inflicts damage on the cell where the electron was taken from, but it creates a chain reaction of unpaired molecules.

The process continues until an electron is taken from a molecule that either 1) changes the cell it's in, or 2) destroys it. This is especially harmful, if that altered molecule is an LDL cholesterol particle (causing heart disease), or a DNA strand (causing aging and cancer). Without getting too scienc-y, the 'free radical theory of aging' that cells age because of oxidative stress brought on by having more free radicals present in our body than antioxidants. Basically, PUFAs cause the problem that antioxidants are supposed to reduce. Saturated fats, on the other hand, are more stable because they have no un-paired electrons. This makes them more resistant to oxidation when exposed to heat, light, and oxygen, and therefore less likely to cause free radical damage.

If that wasn't enough, the 2nd problem with PUFAs is that they're high in

Omega-6 fatty acids. As you'll discover in *Live It, NOT Diet!*, maintaining a favorable ratio of omega-6:omega-3 is extremely important to your health and longevity as it determines your level of inflammation. Omega-6's fats are pro-inflammatory, which means they cause inflammation, while omega-3 PUFAs like fish oil are anti-inflammatory. Essentially, more omega-6s than omega-3s leads to inflammation in the body. There is a healthy intake of omega-6 fats, but unfortunately the replacement of saturated fats with plant and seed oils has created a severely imbalanced ratio. If experienced chronically, this imbalance raises your risk of developing a degenerative disease. Here's a look at the increase in our omega 6:3 ratio since 1930, predominantly because of an increase in omega-6 PUFAs:

- 8:1 from 1930-1935
- 10:1 from 1935-1985
- 12:1 in 1985 alone
- 25:1 in 2009!

Notably, the 6:3 ratio remained relatively consistent for 55 years, until it more than doubled in 25. We've increased our consumption of omega-6 fatty acids largely because of the low-fat guidelines. These numbers may not seem like such a big deal, until you learn that:

> Our hunter-gatherer ancestors maintained a 6:3 ratio of 1:1!

We'll talk more on the importance of controlling inflammation and how to balance your omega 6:3 ratio in *Live It, NOT Diet!*, but for now it's critical that you recognize the detrimental effect of replacing saturated fats with plant oils. By consuming excess omega-6 polyunsaturated fats, which promote oxidation and inflammation, you increase your risk of nearly every degenerative disease – Parkinson's, cancer, diabetes, Alzheimer's, cardiovascular disease, etc.

Trans-Fats = Hydrogenated PUFAs

The government's support to replace saturated fats with polyunsaturated fats has given marketing agencies the ability to say things like:

> *'Margarine has 80% less saturated fat than butter, which helps lower your risk of heart disease.'*

As I hope you now understand:

- Less saturated fat is not a benefit
- This does not lower your risk of heart disease (it raises it!)

In fact, margarine and other vegetable oils that have been hydrogenated (like shortening) are the worst type of fat. You likely recognize these synthetic fats by their more common name, Trans-Fats. The hydrogenation process to make plant and seed oils solid at room temperature is what morphs them into trans-fats. Ironically, the reason this process was created was to give these oils the same consistency as butter.

Trans-fats are associated with causing severe health issues, specifically an increase in inflammation and elevated risk of heart disease.

> A review of the Nurses Healthy Study determined that just four teaspoons of margarine per day increases cardiovascular disease by 66%!

Unlike saturated fats, which are beneficial to our heart health by raising good (HDL) cholesterol and decreasing small dense (LDL) cholesterol particles, trans-fats do the opposite. Well-respected Harvard researcher, Walter Willet, believes that because of their effect on stroke and heart disease risk, trans-fats could be responsible for nearly 30,000 premature deaths. Most, if not all, of the studies showing a correlation with fat and heart disease use trans fats, not saturated fat. Unfortunately, the general public is rarely informed of this VERY important distinction.

Other than heart-disease, a small amount of daily trans-fat intake (<2g/day) has been linked to insulin resistance, diabetes, obesity, depression, brain deterioration, oxidative stress, poor cognition, cancer, and increased body pain. Trans-fats have even been linked to aggression and mental decline, which researchers believe is due to inflammation impeding the brain from experiencing the protective and anti-inflammatory effects from omega-3's. Shockingly, most North Americans are unknowingly consuming 3-4g of trans-fats per day as:

> The FDA allows companies to include a 'trans-fat free' statement on their product if there's less than 0.5g of trans-fats in it.

Animal Trans-Fats Are Not The Problem

Despite everything you've just learned, I know what you're thinking:

> *"I'm seeing current research that still blames Red Meat for heart disease, and cancer. What gives?"*

Despite the continued practice of citing flawed research, analyzing insignificant biomarkers, and assuming that eating animal foods means cheeseburgers and pizza, there's commonly no clear distinction between animal trans-fat and vegetable source trans-fat. There is an unfair assumption that trans-fatty acids in animal foods are the same as those produced by the hydrogenation of vegetable oils. One is manufactured in a laboratory and the other is naturally occurring, but researchers regularly perform experiments treating the 2 very different substances as equal. The reality is:

> Heart disease is only linked to trans-fat from hydrogenated vegetable oils, NOT from naturally occurring trans fats in meat and dairy products.

Similar unwarranted advice comes from research that makes no clear division between linoleic acid from plant source fats, and linoleic acid from animal fats. The consumption of linoleic acid from vegetable oils (LA) is linked to tumor growth, specifically in the breast. Conversely, the linoleic acid found in the fat of animals, conjugated linoleic acid (CLA), has been proven effective at preventing cancer, specifically reducing the risk of breast, colon, and skin cancer. I repeat:

> The linoleic acid (LA) in vegetable oils promotes cancer, while conjugated linoleic acid (CLA) prevents cancer.

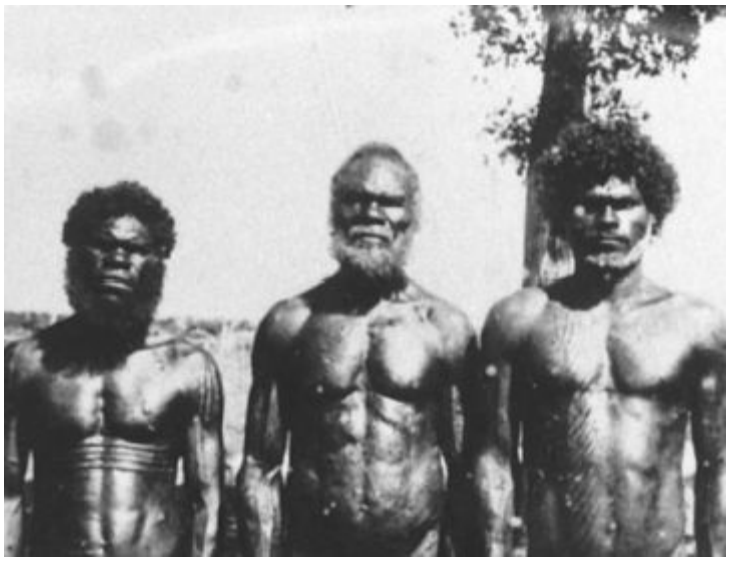
"*The lower limit of dietary carbohydrate compatible with life is zero, provided that adequate amounts of protein and fat are consumed.*"

— Institute of Medicine (IOM)

MISTAKE #6

Believing Carbohydrates Are Essential

Our primal ancestors averaged 80g of total carbohydrates per day. If you opt for the standard North American breakfast that would mean you are restricted to 10-20g of carbohydrates for the rest of the day, as there's upwards of 60g in a bowl or cereal or plain bagel. That is, if you want to be lean like our friends from earlier:



Not to worry, this section isn't that cut and dry. Although, this illustration is necessary because the typical reasoning for selecting carbohydrates is that we need them for 'energy.' If that's the case, how did those before us (and the guys pictured above) survive and thrive on less than 80g of carbohydrates a day?

Better yet, how did they manage to chase down a wild boar, climb a tree to escape a pack of wolves, walk more than 5 miles daily, and gather sticks and

logs to build a shelter?

For whatever reason, we've all been trained to respond to any mention of cutting carbs with this rehearsed answer. Perhaps our parents said it, we subconsciously heard it in an advertisement, or maybe we took a look at the government food pyramid. The reality is:

> There is no dietary requirement for carbohydrates.

If absolutely necessary, our body can synthesize any necessary carbohydrate structures from protein and fat. Carbohydrates provide no essential component, and supply none of the elements necessary to build or repair tissue in the body. If we are ever desperate for energy, our body is perfectly capable of making it's own glucose through gluconeogenesis – the process of generating glucose from non-carbohydrate food sources. Thus, saying 'I need carbohydrates for energy' is an inaccurate statement. In fact, the size of our non-carb fuel tank is significantly larger than any ingested or stored carbohydrates could ever provide.

ALL Carbohydrates Become Sugar

The other basic nutritional science the majority of the population fails to recognize, or understand, is that:

> EVERY carbohydrate ingested becomes glucose.

Either immediately in the stomach, or eventually in the liver. I won't get into the boring specifics of the different carbohydrate options, but essentially you're looking at monosaccharide's, disaccharides, and polysaccharides. You know what saccharide means…?

> *….Sugar!*

You know what polysaccharide means…?

> *Many Sugars!!*

Regardless of mono, di, or poly, all carbohydrates are eventually absorbed as glucose (or fructose) and thus trigger the same response as sugar. Instead of seeing foods like this:

You need to start seeing foods like this:

If you're anything like most North Americans, you are unknowingly filling up on foods high in sugar. And I don't just mean candy and sugar in your coffee; I mean cereal for breakfast, a sandwich for lunch, rice or pasta for dinner, and popcorn in front of the t.v. The reality is:

> Whole wheat bread increases blood sugar more than table sugar!

Yet our government is telling us to eat 6-11 servings of whole grains per day, and we think we're being 'healthy,' or making a 'wise choice' when we do. As you'll soon learn, this is one of the driving forces behind the increased obesity and disease risk we're seeing in North America.

Another common misconception is that our brain can only function on glucose and requires 120 grams of it per day. The 120 gram requirement may be accurate, but assuming that this glucose can only be obtained from dietary carbohydrates is where the disconnect lies. Because of the importance of brain fuel, our body is quite capable of creating it's own, which can be accomplished by breaking down previously stored fat.

There's no need for carbs, especially in the daily amounts most are consuming!

Excess Carbohydrates = Fat Storage

Fat is our premium energy source that's readily available to be burned as fuel. The problem is, when we eat excess carbohydrates consistently we never tap into this alternative fuel, and thus never burn fat. I've found that the easiest way to understand this concept is to think of the body as having 3 empty cups:

- Cup 1 = Glucose to burn immediately for fuel
- Cup 2 = Glycogen to burn if Cup 1 empty
- Cup 3 = Stored Fat to burn if Cup 1 & 2 empty

Once Cup 1 & 2 are full, any excess carbohydrates are converted to fat in the liver, and either:

- Sent to the bloodstream as circulating fat (triglycerides)
- Stored as body fat

The greater the excess in carbohydrates, the higher the production of triglycerides and storage of body fat. For example, a 1971 study from the American Journal of Clinical Nutrition put three groups on 1,800 calorie diets that differed only in carbohydrate content.

> Protein intake was equivalent in all 3 groups at 115g, but carbohydrates were either 30g, 60g, or 104g per day.
>
> After 9 weeks, fat loss was 15.4, 10.8, and 8.9kg, respectively.

The only way to effectively tap into our fat reserves, while still maintaining our health and nourishing our bodies with essential nutrients, is to lower our carbohydrate intake (empty cups 1&2). The other way to empty those cups is to simply not eat, but then we're burning muscle and risking our long-term

health. As I've illustrated, a lack of nutritionally dense calories will lead to malnourishment, hormone disruption, and degeneration. Conversely, by eliminating the 1 macronutrient not required in the diet we burn strictly fat without sacrificing our health.

Excess Carbohydrates = Insulin Resistance

If you look at evolution and the Feast & Famine lifestyle of our ancestors, it becomes easier to understand why we store excess sugar as glycogen and fat (Cup 2&3). Insulin is the hormone secreted by our pancreas to help us store glucose for later use. Before drive-thrus and fridges, we would go very long periods without food. This is an extremely important feature should we need to function when food is scarce, but perhaps not as useful when food is consistently available.

When we eat a meal, our blood sugar rises. Our body utilizes the sugar it needs immediately and insulin is secreted to distribute the rest into carbohydrate storage (glycogen) or fat storage (body fat) for future use. Although this is an important mechanism to maintain blood sugar homeostasis and store energy for later, when insulin is chronically secreted our storage cells start to become less receptive. Essentially, the cells already have an adequate supply of glucose, yet insulin continues to attempt to push more in to ensure blood sugar levels are stabilized. Over time the cells either reduce the number of available sites for absorption or turn off completely. When cells no longer respond to insulin, any glucose we consume is more likely to be stored as fat. Meaning even if there is an energy deficit inside the cells, they don't have the receptors to absorb the fuel. So not only does daily overconsumption of carbohydrates increase the likelihood of glucose converting to fat, but it worsens the responsiveness of our cells to insulin. The more comfortable our bodies get with daily sugar consumption the more receptor sites we lose and the closer we get to something called insulin resistance or carbohydrate intolerance.

Less receptor sites makes it easier to gain fat, even if you're eating less and exercising more than everyone else. The more resistant your cells are to insulin, the higher the likelihood that what you eat will become fat instead of muscle. Even after exercise, when we would normally accept large amounts of glucose to store as muscle glycogen (for future use), the cells are unable to

absorb carbohydrates. Sadly, this resistance also means amino acids (from protein) and other essentials have difficulty reaching the cells. Making it more difficult to build muscle, in addition to the increased likelihood of storing fat.

In essence, consuming excess carbohydrates is increasing fat storage and decreasing fat burning, along with compounding the rate of each. The more resistant our cells become, the more difficulty we will have burning fat and building muscle. You can imagine the long-term impact on one's body composition, although the effects on long-term health are potentially worse.

Excess Carbohydrates = Degenerative Disease

When insulin struggles to find somewhere to put excess glucose because of insulin resistant cells, blood sugar remains high longer than usual. This causes inflammation and the excess sugar in the blood goes through a binding process with proteins and lipids (fats) to form something called AGEs (Advanced Glycation End Products). Excess carbohydrates not only increase our risk of heart disease by raising triglycerides, but when attached to proteins to form AGEs, they gum up arteries and capillaries. These AGEs eventually cause further damage to DNA, enzymes, and receptor sites, and have shown correlations with early aging. Australian researchers determined in 2004 that:

> AGEs produce a 50-fold increase in free radical production, which accelerates aging and increases our risk of the same diseases associated with insulin resistance.

Chronically elevated insulin is associated with an increased risk of cancer, heart disease, neurological disorders (like Parkinson's and Alzheimer's) and early death.

Despite claims favoring a plant-based diet consisting of plenty of grains and legumes to prevent cancer, there's plenty of evidence suggesting otherwise. Dating as far back as 1843, an increase in whole-grain and carbohydrate consumption was highly correlated to an increased risk of cancer. Recently, two studies from Italy looked for a relationship between starch intake and breast and prostate cancer. The first study took 1294 men with confirmed prostate cancer, and 1451 men without, finding a direct correlation between starch intake and prostate cancer. It was determined that:

> Men who consumed the most starch had a 1.4 times higher risk of prostate cancer than those consuming the least.

The other study, from the Universita Degli Studi Di Milano, analyzed dietary habits of 2569 women with breast cancer and 3413 women without from 1991-1999. The results were incredible:

> Animal products reduced risk by 26%, while the starch-rich diet increased it by 34%!

Many forget to acknowledge that having extra body fat is a health risk in itself. Not only does it disrupt regular hormone function and favor additional fat storage but it’s harder on our entire system.

> “An increase of one unit of BMI (Body Mass Index) increases the risk of developing heart failure by an average of 20 per cent.”

“Ads are what we know about the world around us.”

— James Twitchell

MISTAKE #7

Falling For The Fiber Fallacy

The majority of us naturally associate fiber intake with increasing the speed of digestion. Generally, one thinks that the longer food is in our gut, the higher the likelihood that toxins and harmful bacteria will be absorbed and cause damage. The picture you're likely envisioning becomes increasingly prominent when the food sitting in your colon is meat. Not only is animal protein digested slower to begin with, but when we think of harmful bacteria and toxins we generally think of decaying meat. Add the processed, factory-farmed, GMO crop fed, antibiotic pumped meat we wrongfully assume is all that's available, and you get a pretty accurate picture of what a lack of fiber can do…supposedly.

You've already learned that 'Not All Meat is Created Equal,' so the negative vision can be partially eliminated, but there's still a disconnect for most in understanding why slower digestion is not necessarily a bad thing. The reason we all believe we need fiber, and can easily envision the harmful effects of slow digestion, is because it's been driven into our heads for the last 50 years!

The Fiber Fallacy

North Americans were first instructed to increase their fiber intake after research from Dr. Denis Burkitt and Dr. Hugh Trowell in the early 70's. They were studying the associations between diet and health status and wanted to determine why the diseases plaguing individuals in the Western World were not affecting secluded tribes in Africa. According to their observations, lower colon cancer and heart disease rates in the African's could be attributed to a higher fiber intake. Burkitt and Trowell supplied evidence that the

indigestible roughage (fiber) North Americans were removing from their food was providing additional health benefits to the tribesmen. Similar to your vision from earlier, the research suggested that this fiber was increasing digestive flow and preventing the absorption of toxins for the Africans. Very much like the way the 'lipid hypothesis' became a common household recommendation despite insignificant evidence, this 'hypothesis' quickly became fact.

The main reason Burkitt's work was (and is) so believable is that it aligns perfectly with Ancel Keys theory that saturated fat causes heart disease. The world was already leaning towards replacing animal fat and protein with low-fat whole grains to prevent heart disease, and Burkitt's 'proof' helped them make the leap. Unfortunately, Burkitt's work is flawed. He conveniently withheld research on African tribes that had low incidences of cancer and heart disease, but were consuming low amounts of fiber and relying heavily on saturated fat and animal protein. The Masai in Kenya and Tanzania are virtually disease free, yet they eat predominantly animal foods with a great deal of fat and an extremely low amount of fiber (if any). Additionally, the tribes from Burkitt and Trowell's research that were consuming small amounts of grains were putting them through intensive fermentation and preparation methods that REMOVED the indigestible fiber. Thirdly, there's more than fiber to consider when analyzing secluded populations and comparing them to Western culture. In North America, we are (generally) less active, experience different stress (chronic instead of acute), and deal with more toxins on a daily basis. If you compare groups like the Mormons, that eat a low-fiber diet by government standards (less than 25g), but experience similar daily environments to these tribes, their cancer rate is just as low (22% lower than the average) and their mortality rate from colon cancer even lower, at 37%!

High Fiber Does NOT Lower Disease Risk

Aside from the holes in Burkitt and Trowell's work, there's ample evidence indicating no correlation between dietary fiber and cancer risk. For instance, a 1999 study on 89,000 U.S. Nurses published in the New England Journal of Medicine stated:

> "Our data do not support the existence of an important protective effect of dietary fiber against

> colorectal cancer or adenoma."

With respect to heart disease, companies manufacturing products with whole grains love to promote that their product ‘lowers cholesterol,’ or is ‘heart healthy.’ In actuality, there is no proven association between fiber intake and heart disease. The only evidence that produced a positive correlation attributed the lower risk to a ‘slight’ decrease in total cholesterol. As we’ve learned, this is more of a detriment than a benefit, especially if the drop is accredited to a reduction in HDL cholesterol. Unfortunately, consumer products high in carbohydrates run with these insignificant findings and use statements in their marketing that continue to mislead the general public:

> *"Foods high in fiber and low in saturated fat reduce the risk of heart disease and certain cancers."*

Faster Not Always Better

When you look at the long-term effects of eating more fiber, research points to an increased mortality rate. In the DART study from 1989:

> The group eating twice as much fiber ended up with a 23% greater risk of heart attack, and a 27% increased risk of dying.

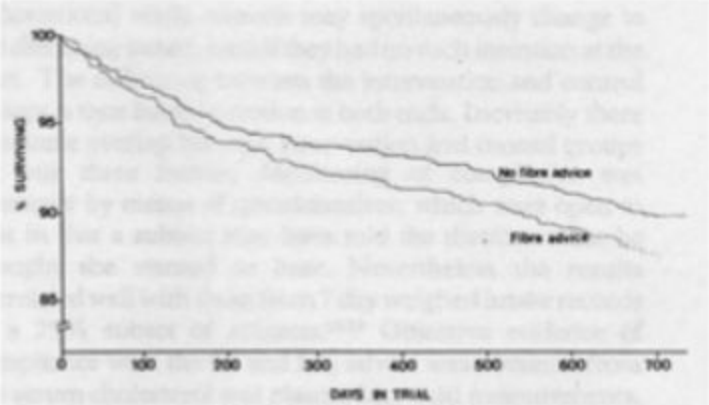


Fig 3—Survival: fibre advice.

This research is especially significant because it tests high-fiber intake over an extended time period. Generally, any research pointing to positive health outcomes from a high fiber diet have been across short timelines, which isn’t surprising. When you add indigestible fiber to a poor diet, the individuals will absorb less of the toxic garbage and eat less in general because of the perceived ‘fullness’ that fiber provides. As the curve from the DART study illustrates, an increase in fiber negatively affects health progressively over

time.

> *Short-term success is usually short-lived, unless a full change in lifestyle is embraced… and it's no different with fiber!*

Whole Grains = Inflammation

Prior to the introduction of whole grains, we lived without many of the degenerative diseases that have unfortunately become common in today's world. The misconceptions surrounding whole grains have been so strong for so long that I often hear this response:

> *"Wheat and crops have been consumed for 100's of years. I've eaten them, my parents ate them, and their parents ate them, and we all survived just fine."*

You may have survived, but how many of those family members died of heart disease or cancer? More importantly, would you say that your physique is the epitome of health and fitness?

Just because they've been around since you were a baby, doesn't mean they are necessary or healthy. Similar to the points made in the saturated fat section, agriculture and modern food processing techniques are not old, they're extremely young:

> "Physicians and nutritionists are increasingly convinced that the dietary habits adopted by Western society over the past 100 years make an important etiologic contribution to coronary heart disease, hypertension, diabetes, and some types of cancer. These conditions have emerged as dominant health problems only in the past century and are virtually unknown among the few surviving hunter-gatherer populations whose way of life and eating habits most closely resemble pre-agricultural human beings."

The most eye-opening study is one comparing low-carbohydrate diets with and without grains on diabetic and pre-diabetic volunteers. After 12 weeks, both groups lost fat and improved their blood sugar, but:

> The grain-free group lost 70% more body fat and were at non-diabetic blood sugar levels at the end of the study.

Other than 'many sugars,' grains (whole or not) contain foreign proteins and natural defenses that induce inflammation. Gluten, found in wheat and other grains, is the most common offender. Regardless of whether there's an obvious allergic reaction (like celiac disease), someone can still experience an immune response to gluten. Several well-respected researchers have

suggested that tens of millions of Americans experience this immunogenic response, knowingly or not. After consuming wheat, or any other gluten containing grain, the immune system releases cytokines to handle the foreign substance and this produces inflammation. Unfortunately, this immunogenic reaction usually goes unnoticed, and it becomes less and less detectable every time the inflammatory food is consumed.

> *Big Jimbo with the 'Iron Stomach,' who can eat 12 hot dogs and drink 10 beers and feel fine, is likely in worse shape on the inside than his outside leads on.*

The signaling from his digestive system turned off a long time ago, and unfortunately he may not experience any real consequences until it's already too late.

Unfortunately, it's not just intolerances to immunogenic foods in specific individuals as all grains are suspected to cause inflammation. The fiber from whole grains and their popular flour counterparts are classified as acellular carbohydrates, while fruits and vegetables are known as cellular carbohydrates. With cellular carbohydrates, the walls of the cells remains intact, so our body needs to effectively breakdown the food (fruit or veg) in order to access the glucose inside. Conversely, with acellular carbohydrates the cell walls are broken down immediately producing unfriendly bacteria in our gut, and an instant blood sugar response. This bacteria causes inflammation, while the breakdown of root vegetables, leafy greens, and fruits stimulate beneficial bacteria and no inflammation. This difference in carbohydrate type is so impactful that groups like the Kitavan Islanders of Oceania can get away with eating a diet as high as 60-70% carbohydrates because they rely solely on cellular options. When acellular sources are introduced to tribes like the Kitavan (even in very small amounts) it produces extreme inflammation and sensitivity.

Aside from being a major contributor to most degenerative diseases (cancer, Alzheimer's, heart disease, etc.), inflammation specific to the gut appears to predict obesity. DIABESITY (obesity + diabetes) caused by chronic inflammation has been strongly correlated with the negative effects of circulating LPS (lipo-polysaccharides), from the gastrointestinal tract. These LPS molecules are elevated when the typical high-carbohydrate grain dominant meal is consumed and can lead to the development of leptin

resistance. Sadly, researchers suggest that this situation is heightened when there is a lack of saturated fat.

Whole Grains = Intestinal Damage & Poor Absorption

The lectins and phytates found in legumes are also found in whole grains. In large quantities these plant defenses decrease the absorption of key nutrients and can damage the walls of the intestinal tract. This tissue damage makes us more susceptible to immunogenic reactions and digestive issues. Although, many will suggest that soaking and cooking will eliminate the majority of lectins and phytates from grains and legumes, many contain lectins that are resistant to heat. Furthermore, as I outlined in the section on plant-based proteins, an 18hr soak only removes 50% of phytates. Bran, which is the most popular fiber recommendation, contains phytates that harm iron, calcium, magnesium, and zinc absorption.

When someone demonizes meat because of factory-farming and antibiotics, these characteristics can be changed. We have the ability to choose or produce a higher quality and non-toxic product. The same cannot be said for grains and legumes, as these 'natural' defenses are present in all varieties and can't effectively be removed. More importantly, as companies continue to create more-resistant varieties of crops to support greater yields, these defenses will only grow in number and power.

As the quality of our food and the soil it grows in continues to diminish, the proper breakdown and absorption of the remaining nutrients in foods grows in importance. All nutrients are absorbed through the walls of our gut, which is why the integrity of our intestinal lining is so important, and why we must avoid foods that compromise it. Although the standard recommendation is to consume a high fiber diet, full of cereal grains like Bran, this results in damage to our intestinal lining and compromised digestive health. The digestive damage from lectins becomes increasingly detrimental with frequent consumption, as is characteristic of the majority of the population who eats some form of grains at every meal. The cereal for breakfast, sandwich for lunch, pasta for dinner regimen we discussed earlier, introduces toxic lectins frequently and continuously. When there's constant irritation it leaves no opportunity for repair, which can result in a higher severity of damage over time. For instance, if the intestinal lining is compromised and

more lectins are introduced our risk of leptin resistance is elevated.

> *When absorption is minimized because of decreased gut health, one has to question whether adding insoluble fiber to 'speed up' transit time is beneficial.*

This is likely why David Southgate, one of the world's leading authority's on fiber, suggests that infants, children, and pregnant women that have greater mineral needs should disregard the recommendation to eat more fiber.

High Fiber = High Carb

Aside from inflammation and digestive distress, an increased intake of whole grains and cereal fibers adds to our daily carbohydrate (sugar) intake. These polysaccharides ('many sugars') generate a blood sugar response as high as table sugar, leaving you with excess body fat and elevated triglycerides. As I've illustrated, triglycerides are a much better predictor of heart disease, and researchers point to insulin resistance and a sedentary lifestyle as key risk factors for colon cancer.

Regardless of the evidence, the general public continues to be misled by the government and various medical associations with statements like this (from 2011):

> "Higher intakes of dietary fiber and whole grain also protect against weight gain and type 2 diabetes, and it is possible that part of the potential effect of fiber intake is mediated through improved weight control and reduced insulin resistance, although these may not be the main mechanisms."

“The more people that believe it’s true, the more likely they are to repeat it, and thus the more likely you are to hear it. This is how inaccurate information can create a bandwagon effect, leading quickly to a broad, but mistaken, consensus.”

— Barry Schwartz, The Paradox of Choice

MISTAKE #8

Thinking Protein Causes Health Problems

The eating habits we thrived on for millions of years that resulted in minimal (if any) incidences of degenerative disease, had nearly 4 times the protein the average North American consumes now. Yet, in 2001 The American Heart Association made the following statement:

> "Individuals who follow these [high-protein] diets are at risk for ... potential cardiac, renal, bone, and liver abnormalities overall."

There is no convincing evidence to support such a claim, and drawing a conclusion like this is extremely misleading to the public. Interestingly, the research on higher protein diets suggests the exact opposite.

High Protein Does NOT = Kidney Damage

I can't tell you the number of times I've been in a discussion where someone made the statement:

> *"High protein diets cause kidney damage."*

It's like we were all born with an instruction manual that reads:

- Dietary Cholesterol = Heart Disease
- Cut Calories to Lose Weight
- Red Meat = Cancer
- Eat Whole Grains to for Fiber
- High-Protein Causes Kidney Damage

The research most are referring to was a Nurses' Health Study that followed

approximately 1600 female participants for 11 years, concluding that a high-protein diet causes kidney dysfunction. What the media failed to communicate was that the participants that experienced the damage had pre-existing kidney damage.

> *Congratulations Science! Those with bad kidneys can compromise the function of those kidneys by eating a high protein diet.*

That's like saying someone with an injured shoulder can compromise shoulder function by lifting weights, or a guy with a broken foot can compromise his recovery by jumping up and down.

One of the kidneys main functions is to process the waste products from the food we eat. Eating a high protein diet can increase the filtration work from the kidneys (hyperfiltration), but this is:

> "A perfectly normal adaptive mechanism well within the functional limits of a healthy kidney."

In the Nurse's Health Study, those with healthy kidneys did not experience disrupted functionality and many did not even enter a state of hyperfiltration. Furthermore, there's significant evidence suggesting that an increase in protein consumption and a corresponding state of hyperfiltration produces a favorable adjustment from the kidneys. Over time there's less protein found in the urine, which suggests greater protein absorption. Muscle maintenance and growth is dependent on protein synthesis, so this adaptation from hyperfiltration should be considered a benefit.

Other than the misleading conclusions drawn from the Nurse's Study, all research on high protein diets and kidney damage have found no correlation in healthy subjects. Even when protein intake was as high as 2.8g per kg of bodyweight, the kidney remained unharmed. For the record, that's 252g of protein per day for a 200lb man, or the equivalent of four 12oz steaks or eight chicken breasts. Clearly we should be ignoring the biased recommendations from uninformed organizations and start listening to conclusions from legitimate research:

> "It is clear that protein restriction does not prevent decline in renal function with age, and, in fact, is the major cause of that decline. A better way to prevent the decline would be to increase protein intake. There is no reason to restrict protein intake in healthy individuals in order to protect the kidney."

Even for those with renal (kidney) disease, there is no benefit from lowering protein intake. Research recommends an intake of at least 1.4g/kg of bodyweight in these individuals to maintain proper nitrogen balance, which is the equivalent of 127g/day for a 200lb man. Sadly, most come nowhere close to that minimum threshold because they're too busy filling up on high fiber whole grains. Realistically, high carbohydrate (high sugar) diets should be blamed for kidney issues, not a diet high in animal protein.

High Protein Does NOT = Bone Loss

The theory that eating a diet high in protein causes bone loss stems from results showing a considerable (60mg) excretion of calcium in urine for every 50g increase in protein intake. With the majority of calcium stored in bone, it would be easy for one to make this conclusion. However, this is not the case, and in fact the opposite is true.

Before I get into the research, lets stop and think about this for a second. Protein helps individuals gain and maintain muscle. Muscle surrounds bone, protecting it from damage and providing strength and stability to the musculoskeletal framework. Muscle loss (atrophy) from a lack of dietary protein is highly correlated with bone loss, and a lack of muscle strength with an increased risk of fracture (usually from falling). It's hard to prevent a fall without the muscles to provide stability and hard to prevent a bone fracture without the protection that muscle provides. The increased risk of fracture is as high as 3 times greater when muscle loss is present. Generally, a lack of dietary protein is what causes this loss. Therefore, without looking at the potential for leaching calcium from bone, we know that eating a diet high in protein promotes muscle maintenance, providing strength, stability, and bone protection as we age. Not surprisingly, the science supports this thinking. A high protein diet does not negatively affect overall bone density, but rather increases it! We're more at risk from a lack of protein.

The Framingham Osteoporosis Study from the year 2000 looked at 615 men and women over 75 years old, and analyzed daily protein intakes ranging from 14g to 175g. Not only did a higher intake show no correlation with bone loss, but:

> Those who ate less protein had more bone loss.

Other research has shown similar results, like a 1999 study from the American Journal of Clinical Nutrition, which concluded that:

> An increase in dietary protein reduces the risk of hip fracture in postmenopausal women.

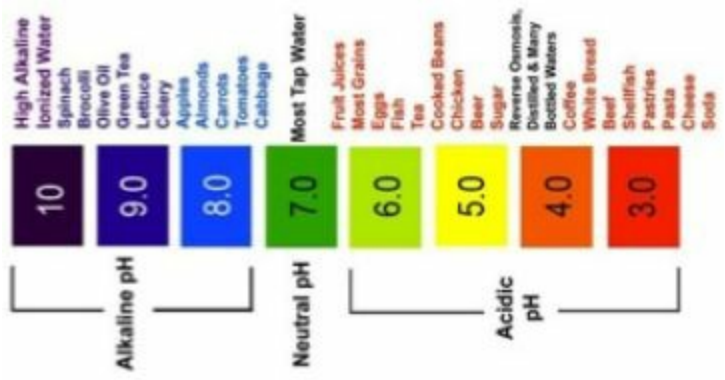
None of this should come as a surprise, as animal foods are our best source of vitamin D other than the sun. And our blood levels of vitamin D are directly correlated with our absorption of calcium. Several researchers have even suggested that dietary protein is as critical as calcium and vitamin D in the prevention of osteoporosis. As the Framingham Study put it:

> "Even after controlling for known cofounders including weight loss, women and men with relatively lower protein intake had increased bone loss, suggesting that protein intake is important in maintaining bone loss in elderly persons."

Going back to our discussion at the start, it's unrealistic to think that our ancestral diet that contained nearly 4 times the protein we consume now all of a sudden negatively affects our bone health.

Protein is Acidic But NOT Harmful

A lack of protein is clearly more of a concern than too much, although some believe that protein is harmful because it's acidic. The acid-ash hypothesis suggests that every time we eat and metabolize food, an acid or alkaline ash is left behind that contributes to our overall pH. When that pH is low or acidic our body must fight to maintain homeostasis, which means adding a base to neutralize the environment. Generally, it's hypothesized that this neutralizer is calcium, which would suggest a loss of calcium and bone from an acidic diet. Here's the pH scale with some common foods:



Grains are also acidic (below pH of 7), so swapping meat in favor of high fiber whole grains (as is recommended) would not improve the acidity. This goes back to my earlier point, that there's an unfortunate assumption that eating protein means cheeseburgers and pizza. It has become common practice to blame animal protein for producing an acidic state, yet bread and cheese are equally acidic. Looking back at our meat-eating hunter-gatherer ancestors, if meat was the culprit in producing a low pH one would expect the group eating more than 35% of their calories from animal protein to have a net acidic diet. However, it's been proven that the pre-agricultural diet is alkaline. This could lead one to assume that perhaps it's the overconsumption of 'other acidic foods' skewing the balance. The reality is, North Americans are eating an acidic diet whether they include meat or not. Especially when they are hitting the government recommended 6-11 servings of grains per day.

The acid-ash hypothesis holds true in the sense that there is remnants (acid/ash) left behind after the metabolism of food. However, many fail to acknowledge the important role that the kidneys play in regulating pH. Bicarbonate ions, found in the blood, are perfectly capable of buffering the acid left behind from protein metabolism. This removes the need for calcium excretion to buffer the acidic environment and maintain homeostasis. These bicarbonate ions act as a neutralizer when acidic foods are ingested and are replaced every time 'new' ones from the kidney are excreted. Although additional acid in the diet appears to produce more calcium in the urine, research has determined that calcium metabolism is not negatively affected by higher acid levels in the diet. Meaning, there's calcium, but it's not from bone. In fact, science has suggested that a higher protein intake produces positive results in bone health and calcium absorption, and a decreased risk of osteoporosis and fracture. Although protein is an acid-forming food, it increases the body's ability to excrete acid while improving absorption. Therefore, any excess should be of no concern.

High Protein Does NOT = Cancer

I hate to pick on vegetarians again, but this is a classic response to justify their decision to avoid meat. I can visualize it now:

> *"Well you know Cancer grows in an acidic environment and meat is vveeerrrryyy acidic."*

Takes bite of bagel with cream cheese, and sip of skinny vanilla latte.

"There's tons of research showing that an alkaline diet prevents Cancer growth, and can even remove Cancer Cells."

First of all, cancer cells can grow in any environment, and most experiments show its growth at normal pH (7.4). Additionally, the body is more tolerant to low pH (acidosis) than high pH (alkalosis), with the lowest survival level at 6.8 (-0.6) compared to the highest survival level at 7.8 (+0.4). Thirdly, most of the theories suggesting an association with cancer and an acidic diet depend on blood and other fluids changing their level based on the type of food we choose to eat, which is not possible. The pH level of the foods you're eating can effectively alter the acid or alkaline measure of your urine, but cannot adjust the pH of extracellular fluid and blood. Lastly, the ones that do hypothesize that there's a link between dietary acid-forming foods admit that they're only speculating. Any 'expert' understands that once a tumor grows it creates it's own pH.

It's not the acidic blood that produces the cancer, it's the cancer that produces the acidic blood.

Most hate generalizations about any topic, and nutrition is no different. Yet whenever it's suggested that someone increase their animal protein intake, it's met with extreme opposition and unfair generalizations. If anyone knew how uncommon acidosis was in healthy individuals, perhaps they would stop assuming that eating 1 extra piece of meat per day would send them into full blown acid overload and strip their bones of precious calcium. Reaching acidosis from eating an acid-forming diet is nearly impossible.

At the end of the day, it's more than acids and bases. It's food quality and choice, and whole grains are a much bigger concern than meat. Furthermore, if acidity is your biggest worry, perhaps you should know that the acid-load from exercise is a much bigger risk than any potential impact from food.

“While the endurance athlete has a need to maintain a high submaximal intensity for long periods to be successful, the vast majority of athletes, and certainly humans in general, have no need for this type of activity.”

— Mark J. Smith, PhD

MISTAKE #9

Exercising To Burn Calories

As mammals, if caloric intake is chronically low (during a diet) or output is chronically high (from exercise) our body naturally seeks homeostasis using a combination of hormones and an adjustment to our metabolic rate. We are able to function on less calories per day because we're storing more and burning less, while attempting to access more calories by elevating our hunger hormones. This is why exercising to burn calories is just as ineffective of an approach to getting fit as attempting to eat less.

The New England Journal of Medicine published research in 2011 on the long-lasting negative physiological effects of a caloric deficit. The reason this research is mentioned here, and not in the calorie restriction section, is because the participants consumed only 550 calories/day. This is characteristic of many extreme weight loss protocols that combine inadequate input (food) with excessive output (exercise). Participants were middle-aged obese men and women that consumed only a 'special' shake and two cups of low-starch vegetables for 10 weeks…

…hmmmm this sounds an awful lot like those MLM Meal-Replacement Shake Diets.

As expected, the men and women lost a lot of weight. However, for the next 42 weeks they gained nearly half the weight back on a maintenance plan that was still restricted and their hormone levels remained damaged for an entire year afterwards! Leptin went down, meaning hunger (ghrelin) increased, metabolism decreased, and fat storage was elevated and remained elevated. Their threshold to gain was now significantly lower, and their threshold to burn, higher. As illustrated in Mistake #1, this altered hormonal state continues far beyond the restriction or reduction period, so one can only

imagine the effects from a lifelong deficit.

When your solution for weight loss and maintenance is caloric reduction, through more exercise or less eating, you fail. The results are short-lived, and unfortunately the damage is long lasting. Constantly fighting hunger is difficult, and trying to push through workouts with no energy is exhausting. The body senses the caloric imbalance and seeks homeostasis. This is why the energy-in/energy-out philosophy is extremely flawed. If you won't adjust your energy output (exercise) or energy input (food) to match the demands of your body, your complex hormonal system will do it for you. Unfortunately, those attempting to lose 'weight' are misled into believing that they need to consume less calories, burn more calories, or do both. When you're below a caloric homeostasis you cannot consistently overpower the natural regulators in your body.

> *It seems harder and harder every year, and every time, because it is!*

Usually when your workouts focus on burning calories, your sessions revolve around moderate intensity endurance exercise, or cardio. People select cardio as their method for training because they've bought into the calorie reduction method to losing weight.

> *"It must be January, all the treadmills, elipticals, and recumbent bikes are booked up at the gym."*

Just like a calorie restriction eating strategy, this approach will help you lose 'weight' in the short-term provided you can withstand the exhausting workout sessions and extreme battle with hunger. However, as a long-term approach it's not sustainable as our hormones are far too powerful. Aside from an increase in fat storage hormones and decrease in muscle and metabolism that you would expect from a caloric deficit, frequent and prolonged endurance exercise increases the stress hormone cortisol.

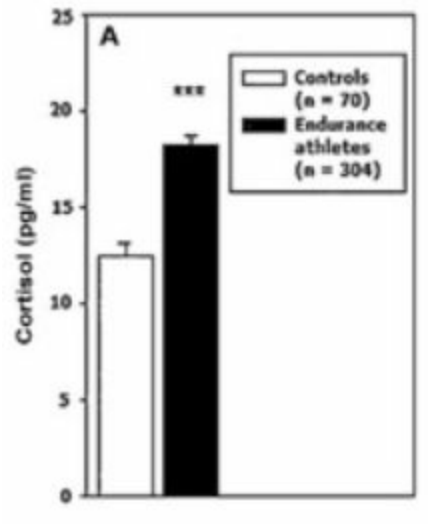
Chronic = Elevated Cortisol

Our body possesses the unique ability to adapt quickly to a new challenge. The more we perform the same challenge, the easier it becomes, until it's almost second nature. This phenomenon, known as muscle memory, is especially evident in exercise as weights begin to feel lighter and distances don't seem as far. In order to experience continuous improvement from

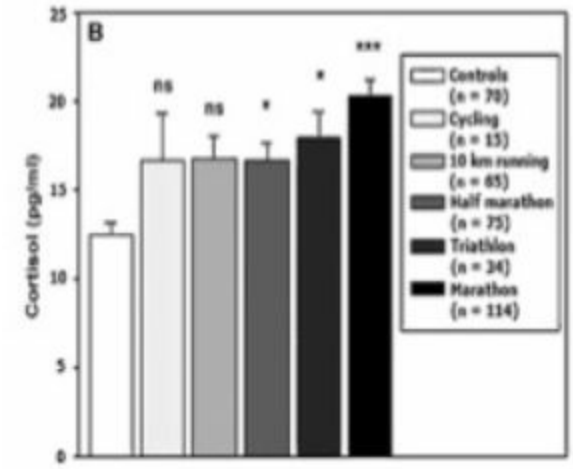
exercise, we must consistently change the stimulus or make it more difficult (the overload principle). With resistance training, there's more variables, as the exercise can be altered, weight raised, or repetition and set scheme adjusted. Each minor alteration, even in grip, produces a different stimulus that recruits new muscles that need to adapt. With steady-state aerobic training your body adapts to the stimulus and it requires faster speeds or longer distances to experience the benefits that come with adaptation. The longer durations and increased intensities necessary to experience the 'training effect' initiate higher levels of damaging stress hormones. This results in more fat, less muscle, and a progressive decline in health.

When our body is under stress, the hormone cortisol helps to increase the concentration of glucose in our blood so there's readily available energy for our muscles to utilize. Cortisol secretion is a favorable response when released infrequently and for short periods of time as it helps the body deal with stress. However, when the body is exposed to chronic and consistently elevated cortisol for extended periods of time it can experience unfortunate long-term consequences like cognitive decline, altered immune function, poor digestion, and increased fat storage. Again, this can be related back to the lives of our hunter-gatherer ancestors. They only experienced stress for brief moments in time to run from a predator or chase down prey. This acute, 'fight or flight' response is beneficial, as the cortisol secretion supplies immediate fuel for the brain and muscles to react and function quickly. However, this acute stress is nothing like the daily stress we experience today, and definitely nothing like the stress from prolonged endurance exercise.

The secretion of cortisol starts at the onset of exercise and continues as long as the stressful situation persists. This makes the choice of exercise duration and intensity of extremely important. Prolonged endurance training causes the body to release an abundant amount of cortisol. For instance, research from 1976, in the Journal of Applied Physiology showed no increase in cortisol secretion after 10min of exercise (at 75% intensity), but after 30min it doubled. Another study analyzed the cortisol levels in 304 amateur endurance athletes, and the average additional secretion compared to non-endurance athletes (in white) was 42%.



By selecting cardio as your exercise method to getting fit, consistent improvement requires longer distances and higher frequencies. Those who run more kilometers per week, train for more hours, or take part in more competitions over the year consistently exhibit higher cortisol levels.



Lifelong endurance athletes are essentially bathing in cortisol and as they continue to push the limits that water gets deeper and deeper.

Intensity plays an equally significant role in determining cortisol secretion as:

> 80% exercise intensity for 1hr raised cortisol, while 40% intensity for 1hr of exercise lowers it.

With an activity like walking, cortisol is removed faster than it can be

secreted. However, as individuals looking to get fit we're consistently told to train harder, run further, and burn more calories. The longer cortisol remains elevated, and the more frequently it rises, the more difficult it is to bring it back to homeostasis. When cortisol is chronically elevated, we can't access body fat to burn and we add additional fat to our midsection (visceral or abdominal fat). Research suggests that this is especially the case for women.

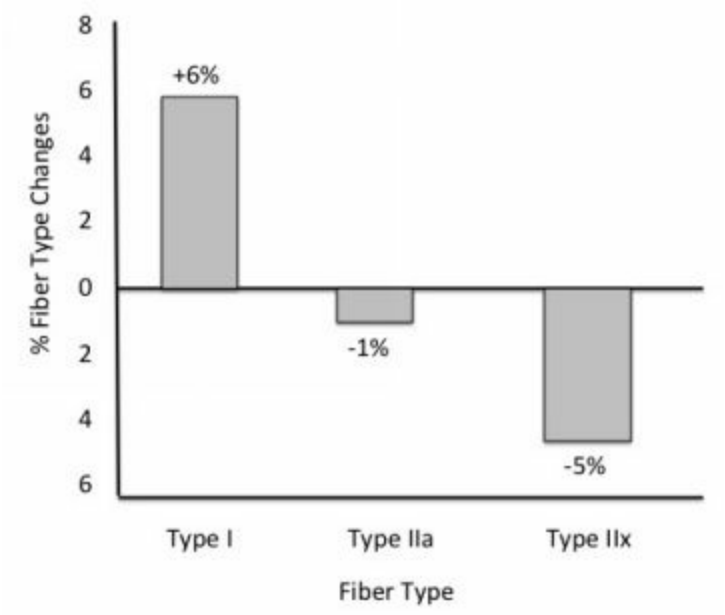
> *Add the stress of your job, kids, finances, and traffic, and is it any wonder we're prone to putting on belly fat?*

Chronic Cardio = Testosterone & Muscle Loss

We eat to lose fat, and exercise to build muscle. If your exercise routine revolves around losing, you will ultimately lose…muscle! Muscle memory's effect on endurance training leads to diminishing returns in muscle recruitment and stagnant results from training. More importantly, any attempt to increase the stimulus for additional development will only lead to more cortisol, which produces muscle loss and lowers the hormones responsible for new growth.

When cortisol is secreted testosterone is inhibited. Cortisol is catabolic (muscle loss) and testosterone is anabolic (muscle gain), so a negative testosterone to cortisol ratio (T:C) promotes muscle loss. If we select cardio as our method for getting fit, any attempt to improve simply leads to more muscle loss. Research suggests that this muscle loss from a negative T:C ratio translates to a slower metabolic rate, higher risk of degenerative disease (like osteoporosis), and an increased mortality rate.

The other factor contributing to an undesirable T:C ratio is muscle fiber type. The type-1 slow-twitch muscle fibers associated with aerobic athlete (distance runners) favor higher cortisol, while the type-2 fast-twitch muscle fibers associated with anaerobic athletes (sprinters) favor testosterone. Other than genetics, you have a direct impact on the composition of your fiber type by your exercise habits. As illustrated in the chart below, this fiber shift can be significant in only 16 weeks of endurance training at 3-4 sessions per week:



Regular long-distance exercise results in a shift from type-2 to type-1 fibers, which is a continuous process if the activity is frequent and consistent. Interestingly, someone who doesn't exercise (non-athlete) has a better fiber composition than a distance runner.

	% slow (type 1)	% fast (type II)
Distance Runner	70-80%	20-30%
Non-Athlete	47-53%	47-53%
Sprinter	25-30%	70-75%

Aside from the information I've presented showing an increase in belly fat and decrease in muscle loss from chronic cardio, I recognize that women hear 'testosterone' and assume it means they'll turn into a man.

"I just want to get toned."

The reality is, getting toned is a combination of muscle building and fat burning. Unfortunately, prolonged cardio sessions results in the opposite. What most are unaware of, is that testosterone is both anabolic (tissue building) and androgenic (masculine characteristics). Fortunately exercising to build muscle will only lead to increases in anabolic testosterone for women. Although testosterone is generally regarded as a male hormone, maintaining a favorable T:C ratio is just as important for women, as research suggests they are more impacted from cortisol secretion during exercise.

As our body ages there's a gradual shift from fast (type-2) muscle fibers to slow (type-1), diminishing testosterone levels and consistent muscle loss. Based on the evidence I've supplied, one could argue that chronic cardio accelerates the aging process.

Cardio = Inefficient

The actual practice of prolonged aerobic exercise not only favors muscle breakdown, but its time lost when you could have been building muscle. Moderate intensity jogging, cycling, or riding the elliptical for 1-2hrs is extremely time consuming when performed several days a week when equal or better results can be achieved in considerably less time. For example:

> High-intensity sprints produced better fat-loss results and equal performance improvements compared to moderate-intensity jogging, with 1/18th the time commitment.

Most mention doing cardio to improve stamina or endurance capacity, but high-intensity interval training (HIIT) has proven more effective at improving aerobic power, lactate threshold, and Vo2 Max. From an efficiency perspective, it makes no sense to spend 1-2hrs on something that can be done in 20min, and without the potential for muscle loss and fat gain.

Half of the time spent running could have been invested in weight-training or interval training producing more metabolically active muscle, burning more fat, raising beneficial hormones (testosterone, GH, IGF-1), and avoiding the accumulation of cortisol.
As cortisol levels rise steadily throughout a workout, testosterone levels peak at around 20min. Suggesting that the longer the exercise bout, the more unfavorable the T:C ratio. Increases in cortisol from endurance training produce equivalent reductions in testosterone, while short and intense workouts favor testosterone increases.

When you workout to build muscle you burn more energy throughout the day, as this new muscle needs additional fuel to operate. Meaning you will burn more without additional exercise. Aerobic training, on the other hand, does not produce positive changes in muscle and the intensity and duration must continue to increase in order to experience additional burning. Longer distance and higher intensities means more cortisol and muscle loss, and less

testosterone. The characteristics normally associated with aging are accelerated from chronic cardio, including a shift from type-1 to type-2 muscle fibers. As I'll illustrate next, this stressful environment not only impacts your body composition, but it raises your risk of the various diseases of degeneration.

"If we went out for a run right now and you ran hard… by 60 minutes something starts happening… the free radicals blossom, and it starts burning the heart. It starts searing and inflaming the inside of your coronary arteries."

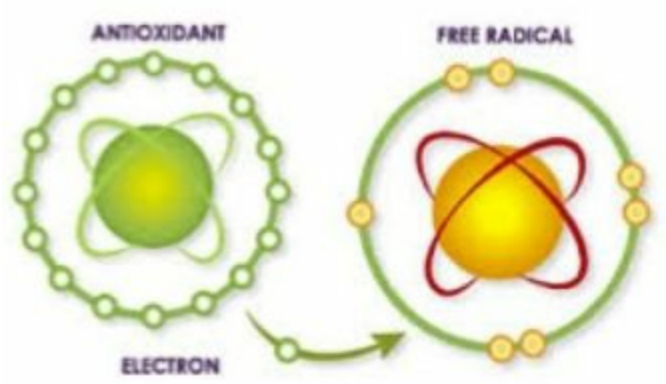
— Dr. James O'Keefe

MISTAKE #10

Doing Cardio To Stay Healthy

When we hear the word ‘cardio,’ most of us think of jogging, biking, swimming, or anything that gets your blood pumping at a reasonable rate. As already illustrated, these activities produce negative consequences in body composition by supporting muscle damage as opposed to growth, and fat storage as opposed to removal. When it comes to your long-term health, less muscle and more fat is obviously not favorable. However, the biggest issue with moderate-to-high intensity aerobic exercise is that it results in an overabundance of free radicals.

Our body produces it’s own antioxidants to counteract free radicals, and can naturally increase its level to maintain balance or homeostasis.



However, if free radicals continuously outnumber antioxidants, damage ensues. I tend to understand free radical production best, when I think of it like inflammation. Acute inflammation is necessary so that our body can go to work on fixing whatever issue we’re encountering that trigged the response

(ex: cut on arm). However, when this response is chronic (ex: gut irritation) and out of balance with our anti-inflammatory levels, there is a problem. The same can be said with respect to oxidation. Acute and infrequent free radical production is necessary for adequate cell function (like facilitating energy production in mitochondria), but if free radical accumulation is chronic and out of balance with our antioxidant levels, there's a problem.

Cardio Increases Oxidative Stress

Other than polyunsaturated fatty acids and environmental pollutants, free radicals are produced from muscle contractions during physical exercise. This production depends on the mode, intensity, and duration of the activity. Nearly every workout type - aerobic or anaerobic, high-intensity or low-intensity, isometric or isokinetic - produces free radicals, but the amount generated varies based on the workout design and delivery. Some argue that more oxidative stress from exercise is beneficial because it increases the body's internal production of antioxidants. Supposedly this promotes higher anti-oxidant levels to deal with increased amounts of free radicals and oxidative stress. However, similar to cortisol, research suggests that problems arise when the free-radical accumulation is extremely high (2hr run), or extremely frequent (running 5 days/wk). In this case, instead of continuing to increase its threshold in the presence of elevated free radicals, the cells will become damaged or even destroy themselves to protect the rest of the body.

Clearly, there's a safe level of exercise, and frequent cardio sessions for extended periods of time surpass that level when it comes to oxidative stress. During low intensity duration protocols, such as walking, antioxidant status matches free radical accumulation. However, free radicals exceed antioxidants when intensity is raised or duration increased.

Cardio Increases Injuries

Ask any rehabilitation specialist (physio, chiro, massage therapist), and they'll tell you how detrimental chronic repetitive movements can be on muscles, joints, bones, ligaments, and tendons. At first glance, moderate intensity endurance exercise may seem like it's easier on the body than weight training or interval training, but it's not. The same consistent impact for hours at a time causes hip pain, knee pain, or ankle pain, and overall

inflammation. Even worse is that individuals doing this as a weight loss strategy are generally putting higher loads on their ligaments and joints.

Exercising at a slow pace for a long time is extremely unnatural. Our hunter-gatherer ancestors would probably laugh watching us run, bike, or swim for hours to burn calories. Back then, energy was conserved, and you either walked to get somewhere, or you ran really fast to get away from something. Even when hunter-gatherers developed organized hunting, they relied on their brains and other resources to track and trap animals, not chase them around for 3hrs! One could imagine what a huge waste of energy it would be if a 3hr persistence hunt was unsuccessful. Furthermore, recent findings provide evidence that the earliest form of human was not designed to run because the conical shape of the ribcage made it difficult for them to swing their arms.

> "They probably couldn't run over longer distances, especially as they were unable to swing their arms, which saves energy."

We can even forget the hunter-gatherers for a minute, and take a look at children playing to determine what's 'natural.' When kids are playing outside at the park, they unknowingly move in short bursts followed by ample recovery. Oddly, there was a study done on this exact scenario.

Researchers determined that children naturally exercise in intervals, as opposed to moving at a consistent speed. Either way, running for distance as a consistent form of exercise is extremely unnatural. Looking at the medical records of most Cardio Kings and Queens, it's not surprising that they're frequently injured. The irony in the term 'stress fracture' is almost laughable when you think of the cortisol and oxidative stress one can expect from chronic and prolonged aerobic training.

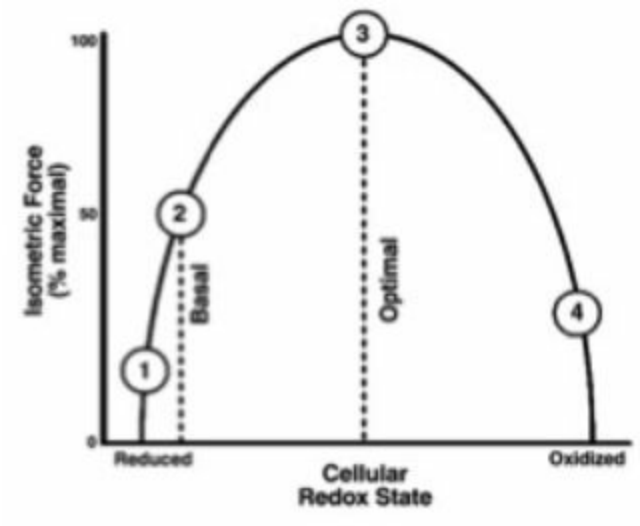
Cardio Oxidizes Muscle

When the original free radical theory was revisited it evolved into what we now know as the mitochondrial theory of aging. Scientists realized that mitochondria were producing a fair amount of the free radicals during exercise. The higher the oxygen requirement during exercise, as is the case with cardio and other consistent movements longer than 45-60sec (aerobic), the larger the production of free radicals within mitochondria.

> With exercise that is predominantly aerobic, oxidation takes place inside the mitochondria, while with anaerobic exercise oxidation takes place outside the mitochondria (as oxygen is not needed to produce energy/ATP).

The increased oxidative stress produced from muscle contractions during aerobic exercise produces consistent damage to the mitochondria, leading to eventual cell death. Muscle cells are essentially 'oxidized' from frequent and extended endurance exercise. Unfortunately, once these muscle cells are destroyed they CANNOT be replaced through cell division.

A model developed in 1992 by M.B. Reid suggests that free radical production is necessary at low levels to preserve normal muscle performance, but higher concentrations produce negative effects. During strenuous exercise free radicals are generated faster than any buffering agent can handle which impairs performance and force output.



His model implies avoiding full fatigue, favoring moderate free radical accumulation that favors increased performance and promotes a natural antioxidant response in balance with the free radical concentrations. Above the optimal threshold, oxidation outnumbers antioxidants, and thus harmful oxidative stress will prevail within muscle leading to muscle dysfunction and loss, damage to protein, lipids and even DNA.

Cardio Produces Acidic pH

The other potentially harmful substance generated during aerobic exercise is lactic acid. Again, this substance is produced during exercise based on intensity and duration, and is an important consideration as an exercise stressor because it lowers pH. Simply running for a few minutes, drops our normal pH of 7.4 to 7.0. Continuing or repeating the same activity can lower it to 6.8, which is considered the lowest tolerable survival pH. As we discussed earlier, many mistakenly think that cancer can only grow in an acidic environment and attempt to blame food for that, yet conveniently forget that their 2hr run that same morning puts them in a more harmful state of acidosis (low pH). The buffering systems (to bring pH up) we have built-in to handle an acidic-food are not as effective during exercise. For instance, the kidneys regulate pH after an acidic meal by excreting more or less bicarbonate. This is unfortunately an ineffective regulator for dealing with the pH stress from exercise, as it can take several hours to react. Additionally, research that supports correlations between cancer and pH focus on increased acidity (low pH) in blood and other fluids. Our diet cannot alter the pH in

blood, whereas our exercise habits can.

Large amounts of lactic acid are produced during exercise that's beyond a certain intensity or duration that increases oxygen and acidity (lowers pH) inside and outside muscle cells. Accumulation of lactate depends on a balance between production by the working muscles and removal by the liver and other tissues. If exercise is continuous, lactate production persists while removal declines. This lactate build-up not only adds to the stress put on our cells, but arterial pH disturbance alone has been associated with life-threatening rhythmic disturbances of the heart.

One of the reasons endurance exercise is more damaging than other forms of exercise, such as weight training, is because intense oxidation and acidity occurs in all 'active' muscles. For instance, diaphragm muscle is continuously stressed throughout an endurance bout, meaning that free radical and lactate accumulation is consistently produced for the entire 45, 90, or 120min bout. With cardio, the same muscles are experiencing the same high stress and low pH during the entire duration, with no time to recover until the activity is over. This concentrated overload is what causes damage, as opposed to a properly designed weight training program that stresses a single muscle or group of muscles for a short period of time followed by ample recovery. Furthermore, most involved in weight training allow ample recovery (72hrs) between muscle groups, as opposed to cardio where it's very common to returns to the pavement, bike, or pool the very next day!

Cardio Decreases Immunity & Reproductive Health

Inflammation and oxidation are 2 of the biggest factors in determining whether or not you develop a life threatening disease. Both are necessary in acute and infrequent doses for survival, but when experienced chronically, the biological clock starts ticking. Endurance training promotes cortisol secretion and discourages anabolic hormones. This creates inflammation in the brain, reproductive system, intestinal tract, and heart. The other factors supporting inflammation are oxidative stress and chronically elevated insulin, which are both characteristic of the long distance runner, cycler, or swimmer. This is likely why:

> The elevated inflammatory markers experienced after aerobic exercise are much higher than those tested after alternative forms of exercise.

This inflammation and oxidative stress from extended duration aerobic training facilitates immune suppression and a decrease in reproductive function. Specifically, endurance athletes are at a higher risk of upper respiratory tract infection (URTI) and face reductions in overall immune function. This is very similar to what one would experience from over-training or too much stress. Again, we see a positive correlation with longer training durations:

> 6 times as many runners experience URTIs following marathons compared to non-participating runners.
>
> Runners that run 96km/week or more, had twice the risk of URTI than those doing 32km/week (1/3rd the mileage).

Intensity also plays a factor as walking produces favorable reductions in URTIs:

> Elderly individuals walking 45min 5xWeek reduced infection by 50% compared to sedentary.

Immune function appears to be the worst when there's a moderate-to-high intensity (60-80%) and a longer duration (90min):

And it's not just runners! One study looked at 24 swimmers, and the rate of respiratory infection was higher in the well-trained swimmers (56%),

compared to the amateurs (12.5%). Although speculative, this could suggest that the repetitiveness of the exercise and the cumulative affect on the body may be the most detrimental.

> "Excessive is training with insufficient rest and variety of training."

Asthma and allergies appear to be highly prevalent as well, as one study tested 42 elite runners of which 23 had asthma and 31 asthma like symptoms. Another study from Finland tested 103 athletes with an average age of 23, reported 16 with asthma, 24 with allergies, and more than half with asthma-like symptoms or exercise-induced asthma.

A 1984 study in the American Journal of Sports Medicine, found that 29% of female endurance athletes have amenorrhea, which is a disruption in menstrual cycle. Amenorrhea results in a delayed or missed periods, and researchers point to a 'lack of available calories' as the driving force in producing these unfavorable consequences. It's suspected that the total 'amount' of training is to blame for these high instances of amenorrhea in female long distance runners. Again we see a connection between chronic cardio and signs of early aging, as amenorrhea from over-exercising has been linked to bone loss.

Likewise, a 1994 study found that high-mileage male runners have lower sperm counts and motility than low-mileage runners. Considering the extremely high blood concentration of stress hormones with longer durations and higher intensities, it's not surprising to see the disrupted release of reproductive hormones. The oxidative stress from long distance endurance training produces significant decreases in the size of the reproductive organs, and cortisol has been shown to reduce testosterone and androgen levels.

The other important consideration for those deciding to partake in long-distance running is the increased loss of blood, and the iron that goes with it. Women are already at an extremely high risk of anemia (low iron) because of their monthly blood loss, and generally low red meat intake. Research has identified a clear link between anemia and runners, and the statistics suggest that it's also quite prevalent in males. In fact, most endurance athletes appear to be at a consistent iron deficiency, losing 1.7-2.2g/day while only absorbing

1g/day.

Cardio = Cardiovascular Problems?

Although the other negatives of selecting cardio to stay healthy have been eye opening, this one tends to sting the most. The main reason a lot of people decide to start running or biking is to improve their 'heart health.' So finding out that this activity does the opposite can be extremely troubling. I can't help but think of someone out there running their butt off to get in shape or stay healthy, when in fact they're doing more harm than good. As they continue to get better at it, they push the limits to strengthen that blood pumping muscle, when meanwhile the are putting their cardiovascular health at risk.

Overtraining is a common mistake many athletes make in preparation for competition, and perhaps more common in the general population when they decide it's time to 'get fit.' January 1st roles around and the out of shape guy at work says:

> *"My goal this year is to run a marathon!"*

Our body physically adapts as best it can during frequent and intense training and many times the damage isn't felt until it's too late. When it comes to endurance exercise, this is especially true. Our natural defenses endure the consistent mileage increases, and compensate for the elevated intensity until one day our heart shuts down. This can be seen in the cardiovascular health of ultra-endurance athletes, who continuously put their bodies through a pounding. These guys, and girls, aren't just running further than everyone else, they're running more consistently and faster. Generally, most (including me) would like to idolize these individuals as we can't see ourselves doing 1 marathon, let alone 2 in a row on a Saturday afternoon. However, as you've learned, duration and intensity has a profound effect on free radical accumulation. Despite the natural increase in antioxidant production, the adjustment is short-lived and serious damage ensues over time.

As Dr. James O'Keefe points out, endurance training causes 'structural cardiovascular changes' and 'elevations of cardiac biomarkers' that appear to return to normal in the short term, but as taken on as a regular activity it

results in:

> "patchy myocardial fibrosis…an increased susceptibility to atrial and ventricular arrhythmias, coronary artery calcification, diastolic dysfunction, and large-artery wall stiffening."

He mentions that it's common to see abnormal results in heart tests for elite level endurance athletes, with as high as a 5-FOLD increase in the prevalence of atrial fibrillation. With ultra endurance athletes, or frequent Cardio Kings and Queens, the damage is especially detrimental as each workout of increased intensity and duration produces more free radical accumulation and more damage. One study, from the European Heart Journal looked at marathon runners, triathletes, alpine cyclists, and ultra triathletes, who competed in races lasting 3, 5, 8, and 11hrs respectively.

> Dysfunction in the right ventricle after the race was least in the marathon runners (3hrs), and highest in the ultra triathletes (11hrs).

Although the evidence is still emerging, there's a budding amount of research that extended endurance training sessions performed frequently leads to cardiovascular damage and increases heart disease risk:

- Impaired Cardiac Contractile Function
- Decline in Peak Systolic Tissue Velocity
- Cardio Myocyte Damage
- Myocardial Fibrosis
- Atrial Fibrillation
- Cardiac Arrhythmias
- Poor Left Ventricle Function

These elevations and alterations could be the result of adaptive responses our body goes through in order to deal with the physically taxing and stressful workout. However, it's clear that this adaptation is likely not favorable in the long-term, and the recorded damage is hard to ignore. One could relate this to our hunter-gatherer ancestors who occasionally had to deal with unique challenges and intense feats of strength that would require an above-average adaptation to survive. Although, just because we can adapt doesn't mean we should, especially on a consistent basis. The resulting heart damage has been witnessed in the early (or near) of several famous ultra-endurance and marathon runners:

> ***Micah True*** *(Caballo Blanco) - one of the ultra runners featured in the popular book Born to Run, died in 2012 at 58 years old of Phidippides cardiomyopathy (enlarged heart from chronic excessive endurance exercise!)*
>
> ***Alberto Salazer*** *– won 3 New York City Marathons and 1 Boston Marathon between 1980 and 1982, had a near fatal heart attack at 49 years of age*
>
> ***Jim Fixx*** *- the man credited for popularizing jogging and author of the best-selling book, The Complete Book of Running, died of a heart attack at 52!*

Cardio Accelerates Aging

We know that the duration and intensity of your workout determines the free radicals produced, and there's a certain threshold at which accumulation overburdens our anti-oxidant defenses. We also know that this damage accumulates over time, making each additional session of equal intensity or duration increasingly harmful. Although the free radical theory of aging is still considered a hypothesis, it's been proven that DNA damage in mitochondria increases disease risk.

> One analysis of skeletal muscle from a 90-year-old man revealed that only 5% of his mitochondrial DNA was full length, while that of a five-year-old boy was almost completely intact.

Either way, the evidence suggesting damage from an imbalance in free radical accumulation and antioxidants is strong and reliable. Knowing this, anyone with a goal of living a long and disease-free life should avoid instances that promote free radical accumulation. Similar to inflammation, a balance can be achieved by either obtaining more of the reducing agent (antioxidants) or avoiding the promoting agent (free radicals). For both inflammation and oxidation, it seems more reasonable to avoid the harmful agent (cardio!).

Free radical damage from long and frequent cardio workouts is especially detrimental to cardiac and skeletal muscle, encouraging muscle catabolism and potentially increasing heart disease risk. Additionally, the combination of oxidative stress, and negative hormonal consequences (high cortisol, low testosterone) that are chronically secreted during prolonged aerobic exercise, seem to disrupt the immune and reproductive system and promote unnecessary inflammation. The long-term affect of chronically elevated cortisol is nearly as detrimental as oxidative stress, with respect to disease.

Consistently high cortisol is associated with the metabolic syndrome, diabetes, and even depression.

Lactate production is also a consideration, which like cortisol and oxidative stress, increases steadily throughout a high-mileage exercise bout causing cell damage over-time. The low pH in extracellular fluid (blood) from chronic lactate accumulation is potentially the biggest concern, as it's been linked to the various diseases associated with aging. Worth noting, is that free radical and lactate production are intensified when exercising in the heat, which unfortunately is also a normal practice by many endurance enthusiasts.

I know it seems odd for me to be a nutrition and fitness advisor yet I'm openly discouraging endurance exercise. However, much like my philosophy on nutrition, I'm not an advocate of aerobic training because I know there's a better alternative without the negative consequences.

> *Soy is detrimental at over 36g; wheat causes inflammation and digestive distress; so why consume them at all?*
>
> *Cardio elevates cortisol and lowers testosterone, burns muscle and stores fat, and promotes cell damage through oxidative stress. So why do it at all?*

I assure you that your time is better spent building muscle that burns fat, and eating in a way that has you burning fat as fuel instead of sugar. The common approach leaves you filled up with cortisol, free radicals and insulin, with burned out muscles, hormones, and energy levels. The time and effort is not worth it, when the same improvements in cardiovascular health can be achieved from walking, and better results in body composition by EATING RIGHT!

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live it's whole life believing that it is stupid."

— Albert Einstein

So What Now?

The reason I took the time to write this book and make my program available to you, is because I've watched the 'common' approach negatively affect those around me. They usually last about 2 months, trying to 'burn calories' on the treadmill, and 'eat less' high-calorie foods, fighting a daily battle with hunger and low energy. Conventional wisdom has left them:

OVERWORKED and UNDERFED!

Once they fall off the 'diet' and put more weight on than when they started, they become depressed because the universal theory of calories-in vs. calories-out implies that they lack discipline. As I like to say to new clients:

> "You've been hitting the bull's-eye on the wrong target!"

Now that you've read *Eat Meat And Stop Jogging*, you should be aware of the nonsense. You understand why 'everyone else' believes, and 'everyone else' follows bogus advice. The question is, do you want to continue looking, feeling, and living like everyone else?

Take a look around next time you're in public and take note of the body composition of those around you. Individuals in their early 20's with 40% body fat, school children with the physique of a middle-aged stock broker, and baby boomers hobbling around like seniors, from hip fractures, triple-bypasses, and knee surgeries. The reason we look the way we do is because of the food we eat, fitness regimen we follow, and lifestyle choices we make. The misconceptions you just discovered are what most have been attempting to follow for the last 50 years, and where has it landed them?

Are you going to sit back and accept that this is the new 'normal,' and we're all destined to be fat and unhealthy, or are you going to do something about it?

Are you ready to open your eyes to a BETTER way of eating, a BETTER way of training, and a BETTER way of living?

In my next phase, *Live It, NOT Diet!,* I will tell you what to eat in a way that gives you the ability to dedicate minimal time and effort to 'getting fit' while experiencing amazing results. I give you the principles that help determine when to put in the effort and then reward you handsomely and frequently for your efforts. My program works for me, and it has worked for 100's of clients. It works because it's sustainable.

With my unbiased, non-corporately funded program you will achieve the toned, healthy, muscular, sexy physique you've been striving for, and if embraced as a lifestyle, you will maintain your results well into the future. Not only that, but you'll get there without fighting your innate need to eat when you're hungry and until you're full. Never again will you count calories or monitor portion size, feel deprived or weak, or experience the endless yo-yo cycle of losing it and gaining it back. Now I can't promise you'll be a fitness model or world class athlete, but I will guarantee:

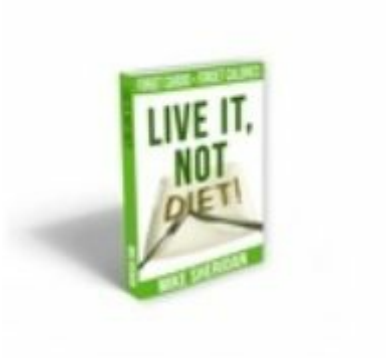
Weekly Fat Loss WITHOUT Muscle Loss!

I introduce you to 14 Principles and progress you across 3 phases until you're presented with the *Live It, NOT Diet!* Lifestyle Plan, which has been followed by myself and my clients for years. We eat as much as we want, whenever we want, and never do cardio. We maintain a lean and healthy physique, and strong body and mind. I progress you at a comfortable speed, so you're programmed for consistent success.

The difference between *Live It, NOT Diet!* and other approaches, is that it's designed to be embraced as a long-term strategy. My clients that have followed this plan achieve amazing results, but more importantly they maintain them long after they've gone on their own. If you're ready for superior and sustainable results while improving your health and longevity, I hope you will JOIN ME and thousands of North Americans in getting lean, and staying lean…for LIFE!

Coach Mike

Live It, NOT Diet!



For a limited time, I'm offering 25% off *Live It, NOT Diet!* in an effort to gather feedback on *Eat Meat And Stop Jogging*. I'd love to hear about your experience with the book so that I can continue to improve my message and the way in which I deliver it.

Register Here for 25% off.

If comments aren't your thing, *Live It, NOT Diet!* is available at all e-book retailers.

About The Author

Mike Sheridan is a research-obsessed Nutrition and Fitness Expert on a mission to uncover the backwards advice on what it takes to be healthy and fit. As an aspiring professional football player, Mike's obsession with nutrition and exercise began at an early age, and directed him towards a career in personal training and nutrition. Although Mike has been able to help a tremendous amount of people transform their body and their life, he has an inherent need to extend his reach and communicate the enormous gap between the scientific evidence and the message to the public. Instead of growing uneasy and frustrated, as the faulty advice continued to negatively affect the health and body composition of those around him, Mike invested the extra energy into relentless self-study. After years of research and nearly a decade of personal practice, Mike shares his knowledge and experience in *Eat Meat And Stop Jogging*.

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