THE PALEO DIET

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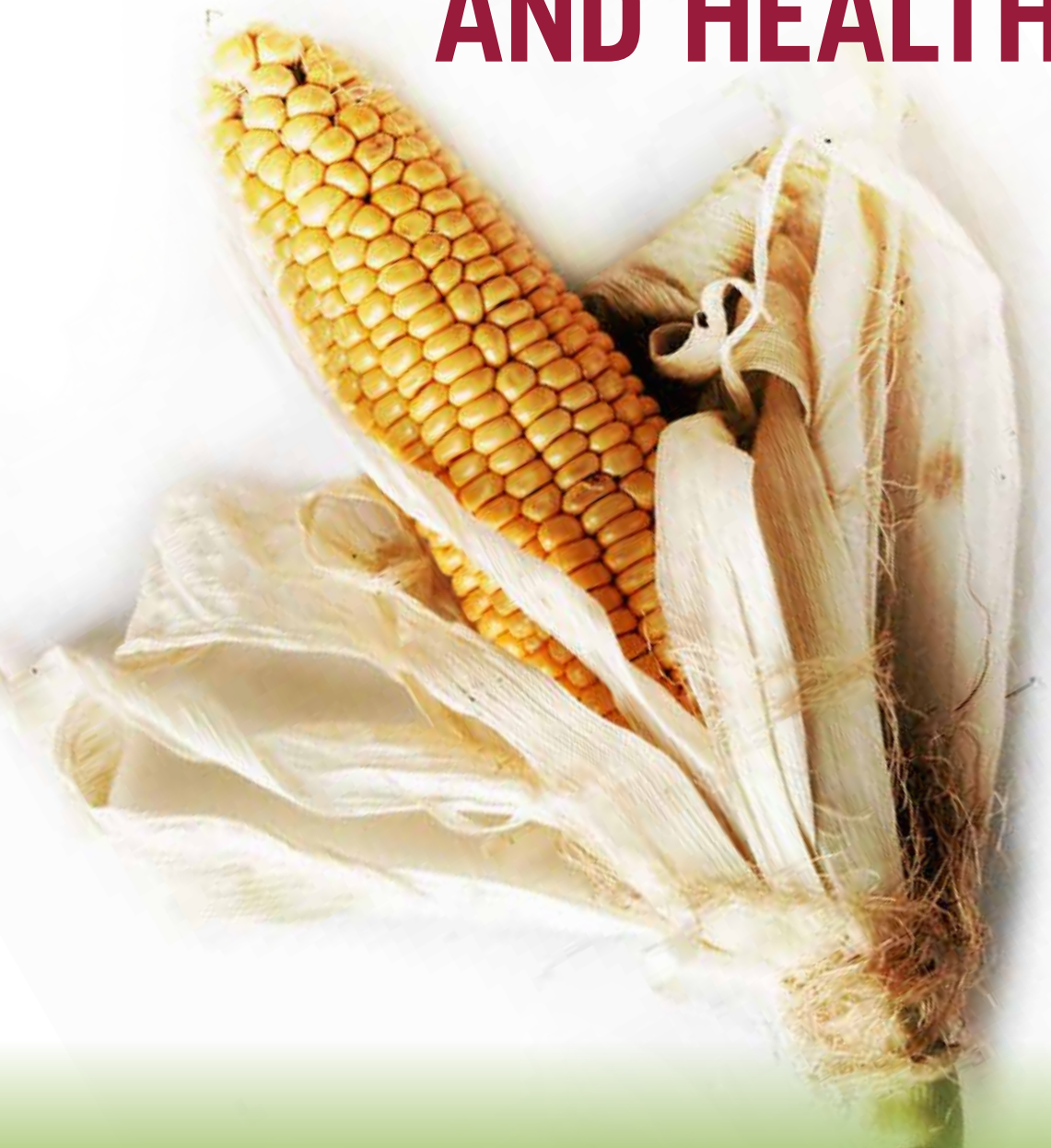
PART I: THE RISE OF FARMING AND ITS INFLUENCE UPON DIET AND HEALTH



LOW-CARB DIET ENHANCES METABOLISM

EFFECTS OF DIETARY FRUCTOSE

DIETARY FIBER AND COLON CANCER

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THE PALEO DIET CONCEPT

The Paleo Diet was published in 2002, and introduced thousands of people to the concept that the healthiest diet is one based on the foods we evolved to eat. Jennie Brand-Miller called The Paleo Diet "the most nutritious diet on the planet." The book was (and remains) revolutionary, providing a cohesive explanation of which foods humans are best adapted to eat, and why this way of eating will improve health and lead to weight normalization.

Unsurprisingly, the book's publisher decided to market it primarily as a weight-loss diet. The result was that some of the most fascinating chapters were cut from the final version, so that more focus could be put on the "how-to" aspects of the diet. In this issue, we'll excerpt the first half of the chapter explaining the rise of agriculture, and how this changed human diet and health.

THE RISE OF FARMING AND ITS INFLUENCE UPON DIET, HEALTH AND WELL BEING

> *"The Worst Mistake in the History of the Human Race"*
>
> *-Jared Diamond*

If you are like most people, the agricultural revolution is some dim historical event that you haven't given a second thought to since about 6th grade. It may seem to have little or no relevance to you in your busy work-a-day world. However, modern civilization as we know it with our cities, our cultures, our technological and medical achievements and our knowledge of the world and universe would never have arisen were it not for agriculture. On the other hand, we can give credit to the agricultural revolution for bringing us much of the chronic disease and obesity that are epidemic in our modern world. The foods that agriculture brought us (cereals, dairy products, fatty meats, salted foods, and refined sugars and oils) are disastrous for our Stone Age bodies – bodies that are ideally adapted to a fare of lean meats, fresh fruits and veggies. In this paper, I will show you how agriculture brought with it a boatload of nutritionally related diseases that were unknown to hunter-gatherers. I will also show you how agriculture's new foods continue to wreak havoc in our Stone Age bodies and how these foods fundamentally vary from the healthful foods our hunter-gatherer ancestors ate.

IN THE BEGINNING

The agricultural revolution really did not start out as a "revolution" at all. No deliberate attempt was made by early farmers to "overthrow" hunter-gatherers. They only wanted to keep their bellies full in the face of rising human numbers and dwindling food resources. The agricultural revolution began about 10 to 12,000 years ago in the Middle East when a few hunter-gatherers first started to sow and harvest wild wheat seeds. A little bit later barley and a few legumes were

added to their stock of domesticated plants, and by about 9,000 years ago sheep, goats and pigs had become part of their growing inventory. Wild fruits and vegetables were still gathered and eaten and wild game was occasionally hunted. To a casual observer, nothing much nutritionally had changed from pre-agricultural days – right? Wrong!

The archaeological record clearly shows that whenever and wherever cereal based diets replaced the animal dominated diets of hunter-gatherers, characteristic health problems arose. Early farmers were shorter than their hunter-gatherer forebears. In Turkey and Greece, preagricultural men stood 5'9" tall and women 5'5". By 3,000 BC the average man had shrunk to 5'3" and the average woman to 5'. But a reduction in height was the least of these early farmers' health problems. Modern day analyses of their bones and teeth show these people were a mess. They had a greater incidence of infectious diseases, increased childhood mortality, and shorter life spans than the hunter-gatherer people that preceded them. Their cereal based diets increased the prevalence of osteoporosis, rickets and other bone mineral disorders. For the first time they were plagued with vitamin and mineral deficiency diseases such as scurvy, beriberi, pellagra, vitamin A and zinc deficiencies and iron deficiency anemia. The well formed and strong teeth of their hunter-gatherer ancestors were now filled with cavities and frequently overlapped one another in their jaws. The once elegant and square jaws that had easily accommodated all teeth had become misshaped during childhood growth.

PUTTING THE WRONG FUEL IN OUR TANKS

What had gone wrong? How could agriculture with its seemingly boundless cornucopia of food have caused all of these health problems in early Neolithic farmers? After all, agriculture was an incredibly successful venture for the human species. Two thousand years before its inception, the world population stood at about 1-10 million. By the year 1 AD, our numbers had skyrocketed to 170 million. As you all know, numbers don't tell the entire story. We now know that the quality and quantity of life had gone down for the average Neolithic person. Ironically, this decline was caused by the very same event (i.e. the agricultural revolution) that allowed their numbers to soar. Agriculture's cereal and starch dominated diets gave them the calories they needed but didn't give them the nutrients their genes dictated. Neolithic farmers, just like us were genetically programmed for a diet of lean meats, fruits and vegetables, but unfortunately

they were overloading it with cereals and starch. The "new foods" of the agricultural revolution had suddenly become humanity's staples, yet they were discordant with our genetic requirements. This discordance surfaced as ill health and disease.

As time went by things didn't get better, but rather worse. Salt gradually became standard fare in the diet as did fatty cheeses, and butter. We learned to ferment grains and make beer and eventually distilled spirits. Selective breeding, along with grain feeding, steadily produced fatter and fatter pigs, cows and sheep. Most of these meats were no longer eaten fresh but were pickled, salted or smoked. For most people fruits and vegetables were luxuries that were rare seasonal additions to their monotonous cereal and starch based diets. The industrial revolution of 200 years ago brought the average person table sugar (and lots of it), canned foods and refined white flour. By the time the early 20th century had rolled around, the food processing industry was upon us with the invention of trans fatty acids, margarine, shortening and almost every conceivable combination of these fats mixed with sugar, salt and some form of starch. The 1950's and 60's brought us more processed foods and high omega 6 vegetable oils. The 1970's brought us high fructose corn syrup as our universal sweetener, an event whose health implications are only now being worked out. Along the way, we got additives, preservatives, emulsifiers, coloring agents, flowing agents, and God knows what else?

The typical foods in the average western diet have strayed so far from Stone Age staples (lean meats, fresh

fruit and veggies), that the average hunter-gatherer wouldn't even recognize pizza as food. How could you possibly explain to a hunter-gatherer how a ding dong or a Twinkie came into being? Isn't it high time that we return to our dietary roots? By eating the food you are genetically programmed to eat, you will automatically begin to lose weight, and your health and well being will soar, as well!

THE 7 UNIVERSAL CHARACTERISTICS OF HUNTER-GATHERER DIETS

Below, I've outlined the 7 basic characteristics that would have been present in virtually all hunter-gatherer diets. These are the fundamental dietary characteristics to which all of us are genetically adapted. When all 7 of these elements are present in your diet, you will optimize your health, minimize your risk of chronic disease, and will begin to lose weight. Agriculture's "new foods" act either alone or in concert with other "new foods" to disrupt one or more of these 7 universal dietary characteristics. Let's take a look at how modern diets have upset the dietary characteristics to which we are all genetically adapted.

#1: HIGH PROTEIN INTAKE

Protein comprises 15 % of the calories in the average western diet. This value is much lower than the average (19-35 %) found in hunter-gatherer diets. Plain and simple, modern protein intakes don't cut it. You've probably heard time and again, that the average American diet contains more than enough protein for adequate health. The key here is the word "adequate". You don't want "adequate" health; you want "optimal" health! The best way to achieve optimal health is by mimicking the diets of our Stone Age ancestors, and this means getting the protein back into your diet. As Neolithic farmers began to include more and more cereals into their diets, the cereals displaced much of the lean game meat that was the staple of their hunter-gatherer forefathers. Cereals average only 12 % protein per 100 calories, while game meats average 83%. It doesn't take rocket science to see that cereals caused an immediate decline in humanity's protein intake. Legumes such as lentils, peas and beans average 27% protein and would have also displaced protein rich game meat. The domestication of animals shortly followed the domestication of grains and legumes, and dairying was upon us by 5-6,000 years ago. Milk contains 21% protein, cheese averages 28% protein and butter has zero protein. So the displacement of lean game meat by dairy foods also reduced humankind's total protein intake. The staple fatty meats in the typical U.S. diet such as hot dogs (14% protein), bologna (15 % protein) and hamburger (24 % protein) also do a number on the high protein intakes dictated by our evolutionary heritage. The current U.S. diet contains 61% of its calories as cereals, dairy products, soft drinks, oils, dressings, candy and sugar. Is it any wonder that our current average protein intake (15% of calories) is about half of what we are genetically adapted to? The chart below shows that foods you may commonly assume to be high protein foods are actually low protein foods by Stone Age standards.

HIGH PROTEIN FOODS (% Protein/100 calories)	LOW PROTEIN FOODS (% Protein/100 calories)
1. Turkey breast (94 %)	1. Eggs (34 %)
2. Shrimp (90 %)	2. Cheeses (28 %)
3. Red Snapper (87 %)	3. Legumes (27%)
4. Crab (86 %)	4. Lamb chops 25%)
5. Game meat (83 %)	5. Hamburger (24 %)
6. Halibut (80 %)	6. Whole Milk (21 %)
7. Steamed clams (73 %)	7. Bologna (15 %)
8. Lean Pork (72 %)	8. Hot dogs (14%)
9. Beef Heart (69 %)	9. Cereal grains (12 %)

#2: LOW CARBOHYDRATE INTAKE AND A LOW GLYCEMIC INDEX

Carbohydrates are far and away the mainstays of all western diets. In fact, they comprise about 50 % of the calories in the typical U.S. diet. This situation differs considerably from most hunter-gatherer diets in which carbohydrates range between 22-40% of the total daily calories. As was the case with protein, we need to take a pointer from our Stone Age ancestors and reduce the total carbohydrate in our diet. But more importantly, we need to mimic the types of carbohydrates that pre-agricultural people ate. They got the majority of their carbohydrate from wild fruits and vegetables. These were foods with low glycemic indexes that were slowly digested and absorbed. Just like the wild fruits and vegetables that hunter-gatherers ate, the non-starchy fruits and vegetables you will be eating on The Paleo Diet, won't spike your blood sugar levels and will be slowly absorbed.

When non-starchy fruits and vegetables are your main carbohydrate source, it's difficult to eat more than about 35% of your calories as carbohydrate. Let me give you an example. The average tomato contains 26 calories. To get 35 % of your daily calories as carbohydrate from tomatoes only, you'd have to eat 30 tomatoes (assuming a 2,200 daily caloric intake). So go ahead, indulge yourself– eat unlimited quantities of non-starchy fruits and vegetables on The Paleo Diet. You won't have to ever worry about getting too much carbohydrate, nor will you have to worry about eating high glycemic carbohydrates that dangerously spike your blood sugar levels.

WHERE DID WE GO ASTRAY?

How did the average carbohydrate content of the western diet ever get so high in the first place? How did we stray so far from the types and quantities of carbohydrate that we were genetically programmed to eat? Simple – it was called the agricultural revolution. The average carbohydrate content of cereal grains is 72 % per 100 grams, while it is only 13.6 % for fruits, only 4.1% for vegetables and 0 % for lean meats, fish and seafood. As Neolithic farmers increasingly replaced their staple game meat and wild fruits and vegetables with starchy cereals and legumes, the carbohydrate content of their diets skyrocketed. High carbohydrate, starchy cereals and legumes literally displaced our more healthful Stone Age staples.

WHAT'S WRONG WITH CARBOHYDRATES?

Most of the carbohydrate from early Neolithic Diets came from whole grains and legumes which are poor sources of vitamins and minerals on a calorie by calorie basis when compared to lean meats, fruits and vegetables. Excessive consumption of grains and legumes at the expense of lean meats, fruits and vegetables frequently leads to vitamin and mineral deficiencies. They also contain anti-nutrients that impair nutrient absorption and may damage the gastrointestinal and immune systems. Grains and legumes yield a net acid load to the kidney and therefore contribute to bone mineral and muscle loss with aging. As I previously mentioned, increased carbohydrate means that protein is lower. Protein is one of our best allies in the battle of the bulge. It reduces your appetite and increases your metabolism -bingo, faster weight loss! Protein lowers blood cholesterol and triglyceride levels while increasing the good (HDL) cholesterol and consequently reduces your risk for heart disease, hypertension, and stroke. It also increases survival time of women with breast cancer. Although you may have often heard that whole grains and legumes are healthful, if the truth be known, these foods are marginal at best. A better choice is lean meats, fish, fresh fruits and vegetables. These are humanity's original staples – not the nutritionally inferior, starchy cereals and legumes.

THE INDUSTRIAL REVOLUTION: MAKING A BAD SITUATION WORSE

Prior to the Industrial Revolution of 200 years ago, almost all cereal grains were eaten whole or were so crudely milled that nearly the entire grain (bran, germ and fiber) remained intact after milling. Crude stone milling of wheat produced a flour with a large particle size. All of these characteristics (large particle

size, increased bran, germ and fiber content) made for cracked wheat breads and baked goods with a moderate glycemic index that didn't cause an excessive rise in blood sugar levels. Does this mean that whole grains are healthful foods? Absolutely not, it only means that an additional unhealthful characteristic (a high glycemic index) was not yet present in foods considered to be nothing more than "starvation fare" by most hunter-gatherers.

All of this changed about 120 years ago with the widespread introduction of steel roller mills. This technological advance produced a fiber-depleted, white flour with a high glycemic index. Hence, almost all baked goods made with white flours cause the blood sugar to rise excessively. Even whole wheat bread made from flour ground by steel roller mills has a high glycemic index that is no different from white bread because the flour particle size is uniformly small. In the U.S. in 1995 80% of all the cereal products consumed were highly refined white flour with a high glycemic index. You can do yourself a big favor by eliminating not only high glycemic cereal grains, but all cereal grains. These foods are best left to the birds.

HOW SWEET IT IS

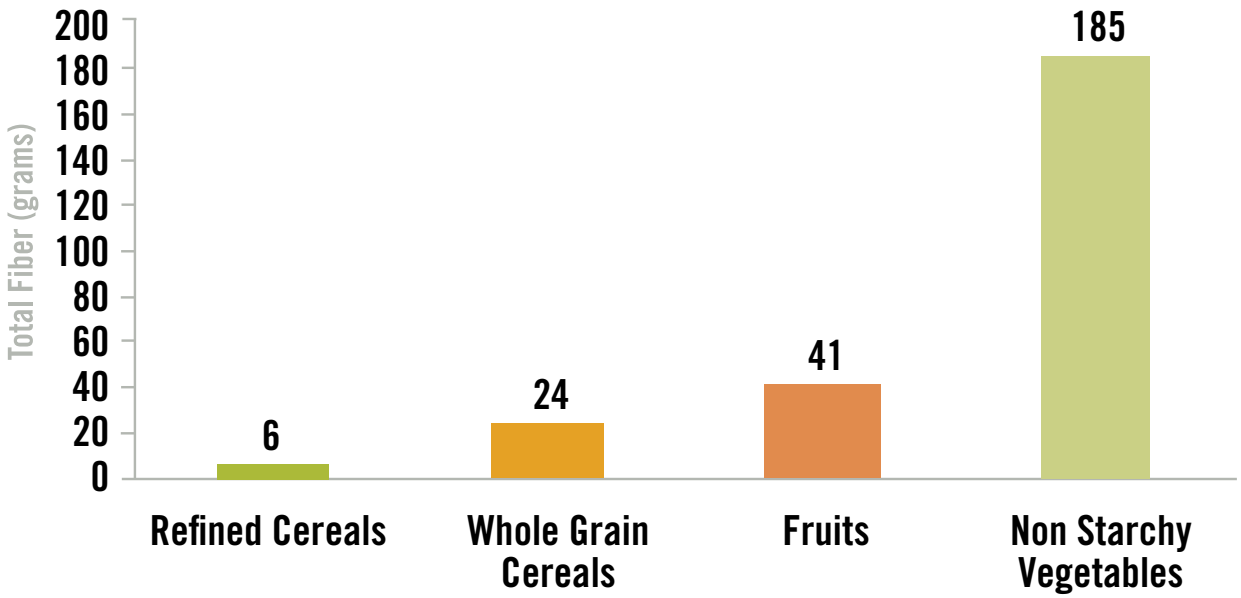
Stone Age hunter-gatherers relished honey, and they would have eaten it at every possible opportunity. The only problem was that there were few opportunities to eat it because it was only available seasonally and in limited quantities. Other than an occasional honey treat, refined sugars simply were not part of humanity's original dietary repertoire of carbohydrates. This state of affairs represented the status quo for all but the last 200 years of our 2.5 million year residence on the planet. Suddenly, in the mere blink of an eye (geologically speaking), the industrial revolution brought us all the refined sugar we could ever want. In England the per capita consumption of table sugar rose from 15 lbs in 1815 to 120 lbs by 1970. A similar situation occurred in the U.S. and in all other western nations.

Like refined cereal grains, common table sugar is not good for us. Everyone knows that it causes cavities, but it is also becoming evident that it promotes insulin resistance and Syndrome X diseases just like high glycemic carbohydrates such as white and whole-wheat breads and potatoes. Table sugar (sucrose) has a moderate glycemic index, so it previously led many scientists to believe that it did not impair insulin metabolism. Wrong! When sucrose is digested, it is broken down into two simple sugars, glucose (with a high glycemic index) and fructose (with a low glycemic index). Fructose because of its low glycemic index gives table sugar its overall moderate glycemic rating. Recent experiments using laboratory animals by Dr. Mike Pagliassotti and co-workers at Arizona State University have surprisingly revealed that fructose is the main culprit within table sugar causing insulin resistance. Dr. Pagliassotti's work was further bolstered by a study done at the University of Lausanne Medical School in Switzerland by Dr. Luc Tappy and colleagues showing that fructose caused insulin resistance in humans. Insulin resistance in turn promotes obesity and the chronic diseases (hypertension, coronary heart disease, diabetes, and dyslipidemia) of Syndrome X.

HIGH FRUCTOSE CORN SYRUP: A REALLY BAD IDEA

As if the steady increase in table sugar (sucrose) wasn't a bad enough change in the carbohydrate content of

Average total fiber content in 1,000 calorie serving of refined cereal grains, whole grain cereals, fruits and vegetables.



our diet, things began to get even worse starting in about 1970. The food processing industry had figured out that high fructose corn syrup could save them a lot of money. Because fructose is so much sweeter than sucrose, it doesn't take as much to sweeten any processed food. Fewer sweeteners added to a food represent a huge savings when we are talking about millions of tons of sugar saved per year. Slowly, but surely high fructose corn syrup crept into almost every conceivable processed food. A 12 ounce can of pop contains about 10 teaspoons of high fructose corn syrup, and corn syrup is now the sweetener of choice for the food processing industry. In the U.S. corn syrup consumption increased from 13% of total sugars in the mid 1970's to 56% by 1995. The average U.S. citizen now eats 83 lbs of corn syrup a year and 66 lbs of sucrose for a whooping total of 149 lbs of refined sugars! Needless to say, the effects on our health are devastating.

#3: HIGH FIBER INTAKE

Closely paralleling the increase in dietary carbohydrate that took place as early farming replaced our hunter-gatherer way of life, was a decline in the fiber content of our diets. Even though whole grains are promoted as wonderfully rich sources of fiber, they can't hold a candle to fruits and vegetables on a calorie-by-calorie basis. When the first farmers added more and more whole grain cereals to their diets, they unknowingly displaced fruits and vegetables; much richer sources of fiber. Even though cereals doubled the total plant food content in the diets of Neolithic people, the total fiber content actually declined. The graph below shows that on a calorie by calorie basis fruits average almost twice as much fiber as whole grains. Non-starchy vegetables contain a whopping 8 times more fiber than whole grains. Adding insult to injury, the industrial revolution further depleted the fiber content of our diet with the widespread introduction of white flour. We can also thank the industrial revolution, by way of the food processing industry, for giving us 149 lbs of yearly refined sugars with utterly zero fiber.

Dietary fiber is absolutely essential for good health. Without it we are at risk for scores of diseases and health problems. A comprehensive medical text, edited by Drs. Hugh Trowell, Denis Burkitt, and Kenneth Heaton, implicated low dietary fiber with the following diseases and health problems: constipation, diverticulitis, colon cancer, appendicitis, Crohn's disease, ulcerative colitis, irritable bowel, duodenal ulcer, hiatal hernia, gastroesophageal reflux, obesity, type II diabetes, gallstones, high blood cholesterol, varicose veins, hemorrhoids, deep vein thrombosis and kidney stones. What a mess technology has made

of the original diet Mother Nature intended for us all. But wait, there is more – refined grains, sugars and fiber depleted foods are only part of the story…

Grab *The Insider* Volume 3, Issue 4 for The Universal Characteristics #4-7.

DIETARY FIBER AND COLON CANCER

Consumption of dietary fiber, defined as nondigestible, nonstarch plant materials, has been shown via numerous epidemiological studies to be a major factor in lowering colon cancer risk. Last year, a research team from the University of Texas Medical School published a series of experiments exploring the mechanism by which dietary fiber suppresses tumor growth in the gut. Highly fermentable fiber sources, such as those from fruits and vegetables, produce large amounts of short chain fatty acids, which have been shown experimentally to prevent colon cancer development. Using rat epithelial cells, the Texas research team confirmed their hypothesis that one specific fatty acid, butyrate, enhances the function of Transforming Growth Factor Beta (TGFB), an important tumor suppressor.

This research sheds light on a specific mechanism by which fiber, specifically from fruit and vegetable sources, acts to protect against colon and intestinal cancers. In addition, these data support the third universal characteristic of hunter-gatherer diets: high fiber foods were consistently present in our ancestors' diet. We evolved eating this way and genetically rely upon these foods for health and regularity.

Nguyen, K.A., Cao, Y., Chen, J.R., Townsend, C.M., Ko, T.C. Dietary fiber enhances a tumor suppressor signaling pathway in the gut. Annals of Surgery 2006; 243:619-627 http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=16632996.

LOW-CARB DIETS ENHANCE FAT METABOLISM

An article in Science Daily this month summarized two recent studies on mechanisms of fat metabolism conducted by researchers at Harvard Medical School. Using animal models, the team was able to identify a specific liver hormone (FGF21) required to oxidize fatty acids. It is known that with extremely low intake of carbohydrates, the body is forced to rely on other sources of fuel rather than the preferred glucose. During long periods of fasting or starvation, the liver converts fatty acids to ketones, which can then fuel the muscle and nervous systems.

For the past several years, the Harvard researchers have been conducting studies on mice and diet composition. They found that even when the mice are fed exactly the same amount of calories, the type of calories they are consuming is the factor that determines the location and amount of weight gained. In their most recent experiment, mice were fed a ketogenic diet high in saturated and unsaturated fat, and researchers detected a subsequent rise in concentrations of FGF21 in the liver. The team went on to show that FGF21 is essential for fatty acid oxidation and when inhibited, the mice developed a large accumulation of fat in the liver and an extreme increase in circulating lipids. The findings imply that the increase in FGF21 is a potential mechanism behind the beneficial properties of low carbohydrate diets in regard to lipid metabolism. The researchers add: diets that limit carbohydrates, eliminate transfats, and emphasize fiber and good fats, appear to be healthiest.

Low-Carb Diet Finding: Study Identifies New Regulator Of Fat Metabolism. Science Daily, June 6 2007 http://www.sciencedaily.com/ releases/2007/06/070605121134.htm.

ADVERSE EFFECTS OF DIETARY FRUCTOSE

An in depth and comprehensive discussion of the potential health complications connected to

consumption of high amounts of fructose was published in the Alternative Medicine Review journal. Fructose has been considered a safe sugar substitute by some nutritionists because of its relatively low glycemic index and because it does not require insulin for uptake into cells. However, there are several other side affects to consider which are potentially more harmful than the rise in blood sugar that occurs with sucrose and glucose. While excessive consumption of any refined sugar is undesirable, fructose is of specific concern because it enters the glycolytic pathway at a different point than other sugars. Because of its structure, fructose essentially bypasses the key rate-limiting step that controls how fast we convert sugars into energy. An unregulated, unnecessary supply of fuel to the Kreb's Cycle translates to energy storage; the most efficient of which is in the form of saturated fat.

Fructose is also a potent reducing sugar; like glucose and lactose, fructose reacts with proteins to form substituted amino sugars. This reaction, commonly called glycation or glycosylation, forms toxic advanced glycation end-products (AGEs), which appear to accelerate the aging process. Studies have also shown AGEs play a role in the pathogenesis of diabetes complications and the development of atherosclerosis. However, unlike other reducing sugars, fructose is 7.5 times more reactive than glucose in terms of participation in glycosylation reactions.

In addition to these examples, the article sites research supporting the role of fructose in obesity, insulin resistance, diabetes, non-alcoholic fatty liver disease, hypertriglyceridemia, hyperuricemia, chronic diarrhea, irritable bowel syndrome, and urticaria. Again, when we ignore one of the seven universal characteristics of traditional huntergatherer diets (i.e. a low carbohydrate intake and low glycemic index), our bodies let us know about it and we experience less than optimal health.

Gaby, A.R. Adverse effects of dietary fructose. Alternative Medicine Review 2005 Dec; 10:294-306 http://www.thorne.com/media/fructose10-4.pdf.

FIGURING OUT WHAT TO EAT

Many people new to the Paleo Diet have a hard time figuring out what to eat. They often tend to eat the same thing they've always eaten, but just remove the grain. So instead of hamburger and fries, they may just have a hamburger patty. Instead of cereal and a banana, they'll have just the banana.

The result – hunger!

Here are a few tips to make eating Paleo a routine part of your lifestyle:

For breakfast, make an easy omelet. Quickly sauté onion, peppers, mushroom, broccoli, add eggs (keeping only one or two yolks), and leftover turkey or chicken breast for extra protein.

Paleo lunches are easy: Make a large salad at the beginning of the week big enough to cover lunch each day. Include mixed greens, spinach, radishes, peppers, cucumber, carrots, avocado, walnuts/almonds, sliced apple/pear, etc and place in a large Tupperware container. Pack single servings each morning from the large batch; bring a can of tuna (or salmon, chicken/turkey breast, ground buffalo) to top.

For dinner, try spaghetti squash as a substitute for any pasta recipe. Top with pesto, marinara and meatballs, or simply salt, pepper, and garlic. Roasted beets, and their greens, make a great side dish for pork. Asparagus, broccoli, and spinach can be steamed quickly. Salmon, halibut, or tilapia filets grill well with accompanying foil packs full of cut veggies with olive oil and garlic.

Berries and other succulent fruits make a great dessert, and pre-cut carrot and celery sticks, sliced fruit, and pre-portioned raw nut/dried fruit mixes are easy to grab and pack for snacks.

PRIMAL IN THE KITCHEN

PALEO POSOLE

- 1 1/2 pounds pork shoulder
- 1 small yellow onion, chopped
- 4 garlic cloves, minced
- 1 t. oregano
- 1 t. red pepper flakes
- 2 Tb. extra virgin olive oil
- 2 cups acorn squash,1-inch cubes cut and peeled
- 1 small jalapeño pepper, minced
- 2 Tb. chopped fresh cilantro

Place pork shoulder in a large stockpot. Add three cups of water, onion, garlic, cumin, oregano, and red pepper. Bring to a boil and cover. Reduce heat to low and simmer for one hour.

Remove from heat. Take pork shoulder from pot and set aside. Pour liquid and onions into a large bowl. Heat olive oil in stockpot over medium flame. Add squash and cook for five minutes, stirring occasionally for even browning.

Return pork, liquid and spice mixture to pot. Add jalapeño, bring to a boil, and cover. Reduce heat to low and simmer for ninety minutes. Sir in fresh cilantro. The dish is ready when the meat falls off the bone easily.

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