

Summary of some basic principles of the Paleolithic Diet:

Our early hominid ancestors never knew what a cheeseburger, fries and a shake were because agriculture, dairy farming and refined vegetable oils did not exist. Many anthropologists can tell you that excavation sites where remains of hunter-gatherer tribes and agriculturists were compared indicate that the HG tribes were significantly better fed. In one famous study of the Ohio River Valley 285 members of the “Indian Knolls” tribe (circa 3000 B.C.) were on average six inches taller compared to the 296 members of the “Hardin Village” (circa 1500 A.D.) and showed no dental carries or bone malformations indicating that their diet was very nutritious. The Indian Knolls tribe also exhibited much lower infant mortality rates and indeed, when we stopped being nomadic and gave up our hunting and gathering lifeway we relied more heavily on a few starchy crops and our intake of *micronutrients* (vitamins & minerals) decreased dramatically.

Granted, settling down to a life of farming allowed other humans to develop science, medicine, commerce and the arts but our health, *fertility*, *successful* birthrates and quality of life suffered and continues to deteriorate today though most of the world’s population is blissfully unaware of these effects. The take-away here is that on an evolutionary timeline, the cultivation of grains, legumes and nightshades as well as the herding of animals for their milk is so new (roughly 5 to 12 thousand years ago) that we have not genetically adapted to these “Neolithic” or post-stone-age foods. In truth, these foods are toxic in so many ways but our medical community rarely makes the connection between anti-nutrients and chronic diseases because the effects are subtle and take a long time to manifest.

These factors lead to two other stumbling blocks: first, the connection between food and disease is considered an impossibility because the other “easy” suspects are always blamed first, such as “idiopathic” diseases, “bad” genetics, “normal” aging and lack of exercise or exposure to environmental toxins, air pollution or radiation; second, when the symptoms do present, it is usually after the average age of reproduction so whatever genetic markers are involved never get removed from the gene pool. Thus the subtlety and delayed onset of symptoms perpetuates not only the problem but our ignorance of it as well.

Many socio-economic factors also contribute to this “conspiracy” such as, big agri-business, their lobbyists and advertisers, research that is funded by corporations with a vested interest in the outcome, the parasitic relationship between the medical establishment, insurance and pharmaceutical companies, plus the nature of the human species to doggedly resist change or radically new ideas (like *evolutionary medicine* for example).

The breeding and feeding of steer beef is also so new that this meat can cause severe health problems when combined with high dietary carbohydrate like grain products, sugar, corn syrup and potatoes. Some health professionals suggest you can fix this really bad combination by being vegetarian or vegan or essentially, by following the high-starch, plant-based, high-fiber and low-fat diet which is low in meat or even lacking completely in animal protein. In other words, the sort of diet endorsed by the US government, the media, and the medical establishment; of course, this same type of diet is heavily advertised by agri-business, the dairy industry and pharmaceutical companies.

These food growers and manufacturers tell us how much we need their products with clever slogans like “95% of all Americans aren’t getting enough whole grains” or “Milk does a body good” and Big-Pharma likes these ads too since they patent medicines to counteract the effects of consuming grains and dairy products (diabetes, acne, alopecia, autoimmunity, brain disorders, heart disease etc.).

It’s a beautiful system if you’re only concerned with profit but compelling evidence that we fare much better on a diet of properly-raised meat and game, wild fish, shellfish, eggs, vegetables, fruits and nuts plus healthy fats can be found not only in anthropology textbooks but also from recent studies of

contemporary hunter-gatherer tribes such as the Inuit, Australian aborigines and the Kitivan tribes of Papua New Guinea; none of these groups have shown evidence of being affected by the diseases and common ailments of Western civilization including diabetes, obesity, osteoporosis, heart disease, cancer, hypertension, acne or alopecia, that is *unless they started to adopt a Western style diet*.

More compelling evidence exists from case histories of present-day men and women that have reversed a multitude of chronic diseases by changing their eating habits and lifestyle to reflect that of our early ancestors in as much similarity as our modern life affords.

Why do we get sick? Western medicine would have us believe that most of what ails us can only be fixed with pharmaceuticals or surgery or both. Paleo nutrition teaches us that most of our Neolithic foods contain anti-nutrients that damage our bodies in several different ways. Why is it that more and more people feel the need to detoxify their bodies with periodic cleanses or fasts or by checking into trendy health spas unless we *are* habitually dosing ourselves with poisons?

Make no mistake, these anti-nutrients have both long-term and short-term effects – *enzyme blockers* prevent the digestion of proteins and starches at that meal, *lectins* cause gut damage and increased permeability leading to autoimmunity, brain disorders or allergies and *phytates* are salts of phytic acid which tightly bind metallic ions like calcium, iron, zinc and magnesium preventing their absorption, leading to severe mineral deficiencies.

Without the framework of evolutionary biology modern medicine typically treats multiple symptoms, like “Syndrome X” for example, with a separate drug for each condition as if each of these symptoms had their own unique and unrelated causes. Paleo nutrition suggests that we should be looking for a common cause like diet and lifestyle and in fact, isn’t it just common sense and far more likely that multiple symptoms *are* related to each other and shouldn’t every diagnostician be highly suspicious that this common underlying factor exists?

I believe that every modern disease affecting us is ultimately brought on by excessive inflammation and excessive inflammation is definitely caused by overeating vegetable oils high in omega-6 fatty acids and by Leptin and Insulin resistance caused from overeating sweets, grains and dairy products.

It can also be triggered by gut damage and our resulting autoimmune response *caused or aggravated* by the anti-nutrients in grains, legumes, nightshades and dairy products. Fortunately, the cure is to eliminate *all* sources of inflammation via a strict anti-inflammatory diet until the gut is repaired and normal digestion can be restored. “*All diseases begin in the gut*” – Hippocrates, circa 400 B.C.

Just to be crystal clear, *anything* that damages the gut lining like bacteria, viruses and parasites as well as *alcohol, grains, legumes and dairy* can predispose one to autoimmunity, multiple chemical sensitivities and even adult onset allergies to otherwise benign foods but this is just the beginning. When the intestinal wall is damaged the hormone CCK (*cholecystokinin*) is not released and the gall bladder never “gets the message” to inject its bile salts into the small intestine which means we do not digest fats and proteins well at all.

This lack of release or “blockage” of bile allows cholesterol crystals to form in the gall bladder which leads to gallstones. In most cases it’s as if the doctor believes everyone’s gall bladder is designed with planned obsolescence and when it has reached its “50,000-mile-checkup”, the only fix is to surgically remove the worn-out body part.

Sadly, many patients who’ve had this gall bladder surgery are simply undiagnosed celiacs; the Paleo nutritionist would see this problem as a failure to adapt to certain foods and the fix would be to remove all grains and sugars from the diet for at least 30 – 60 days until the gut can begin to heal.

This disruption of CCK not only severely damages the digestive process but it down regulates peptide-YY, adiponectin and related hormones which takes our satiety-signaling to the brain off-line: *We cannot properly digest our food, we think we are always hungry and the very foods we crave (sweets and grains) are the cause of all these problems!*

The pancreas is attacked via grain-induced inflammation due to CCK problems and chronically high insulin levels all of which potentially lead to pancreatitis or even pancreatic cancer.

By the way, here are twenty other common ailments that are definitely linked to leaky-gut-syndrome and our autoimmune response: acne vulgaris, celiac disease, infertility, type I diabetes, multiple sclerosis, rheumatoid arthritis, lupus, fibromyalgia, narcolepsy, chronic fatigue syndrome, schizophrenia, autism, depression, Huntington's, non-Hodgkin's lymphoma, Sjögren's, Crohn's, ulcerative colitis, irritable bowel syndrome and inflammatory bowel disease.

Now, please don't get me wrong, I am certainly not suggesting that doctors and hospitals are totally useless or unnecessary. What I am challenging you to do instead is to take responsibility for your own health and longevity in so far as you have control over your own food intake, exercise and sleep!

Before resorting to corrective surgeries or symptom-masking pharmaceuticals, please consider these points: if you smoke, you need to quit and if you drink alcohol, you need to stop for a while at least; then go on a *strict* allergen-free anti-inflammatory diet for thirty to sixty days; sleep eight to nine hours a night in a completely darkened room and *when you're ready*, reduce your stress with some activity that you like: bike, run, skip, hike, walk, swim, dance, take up yoga or martial arts etc.

Then by all means, if any symptoms remain, consult your physician, but first *totally and completely clean up your diet and lifestyle*. **Then you can really speak from experience about what is healthy and what is not, even after just 30 to 60 days!**

Frequently Asked Questions about the Paleolithic diet:

1. Won't my body forget how to poop if I stop eating grains and legumes? Well maybe, but not for the reasons you're thinking! Remember, there is no such thing as an essential carbohydrate despite what you've been told by the AMA, FDA or USDA; we are not wired for a 50% carb whole-grain and bran muffin diet! We can get all the carbs we need from not-too-sweet fruits and vegetables, without spiking our insulin levels and without toxifying or acidifying our body. The insoluble fiber of whole grains and cereals are extremely irritating and detrimental to our GI tract but registered dieticians and health "experts" are completely in the dark on this subject.

If you have been following the AMA or FDA and eating plenty of insoluble fiber from foods or supplements and suddenly switch to a ketogenic, low carb or Paleo diet, yes you may experience costive stools or constipation. This is the side-effect of any high fiber whole grain, wheat, corn and oat bran or psyllium seed (*Metamucil™*) because *they are all very much like an addictive drug* in that it takes more and more of the product to achieve the desired effect! Sadly, most Western allopathic doctors are simply following *The Merck Manual of Diagnosis and Therapy* and even gastroenterologists will still tell you to increase your fiber intake, drink more water and exercise more.

Exercise has nothing to do with the gastrocolic reflex and drinking more water doesn't relieve constipation either. The moisture content of stools is regulated by the mineral potassium, not H₂O. The theory that fiber can help with all GI complaints is twofold: first, fiber is "needed" to bulk up stools to restore motility and second, increased fiber provides more "food" for friendly intestinal bacteria to flourish. Unfortunately, fiber does perform these two functions *at first* but then things start to go right down the toilet, so to speak...

With intestinal bacteria feasting more on fiber, increased alcoholic and acidic by-products of this fermentation eventually succeed in nearly sterilizing the colon, wiping out most of the intestinal flora. Maybe a few bouts of antibiotic therapy prescribed to combat the associated abdominal cramping, bloating or diarrhea wipes out all remaining friendly or unfriendly bacteria, and you have a full-blown case of *dysbacteriosis* aka *dysbiosis*. A legitimate medical condition that is not even recognized by Western medicine!

This overconsumption of fiber eventually leads to more constipation, the doctor advises you to take even more fiber, water and exercise. The coarse bulky stools become difficult to pass, leading to more straining and constipation and more water leads to excessive urination which requires drinking more fluids which pisses away potassium which leads to even more constive stools or fecal impaction. Finally the irritating fiber inflames the intestinal mucosa or even causes lacerations and bleeding leading to IBS or IBD, then comes ulcerative colitis and eventually Crohn's disease.

Doctors will typically prescribe even more fiber for these GI problems but actually insoluble fiber contributes to and aggravates all these conditions. Eventually, fiber also increases the likelihood of intestinal polyps which generally lead to colorectal cancers. What you really need for all these conditions is a low-fiber, low-residue diet that provides modest amounts of soluble fibers from fresh fruits and vegetables to feed the friendly bacteria. Avoid all sugars, flour, artificial sweeteners, starches, gums and thickeners as well as all grains so as to starve the unfriendly bacteria and yeasts.

You cannot replace the over 400 species of intestinal bacteria with dead plant fibers! Healthy stools should be small, easy to pass without straining and are *mostly made of bacteria not food fibers*; if digestion is working properly, very little residue *should* be left because proteins, carbs and fats were totally assimilated and soluble fibers were completely fermented.

Sometimes it appears that doctors think we are all termites or carpenter bees and we can break down large amounts of cellulose and other indigestible plant fibers, but insoluble fiber is NOT healthy; its good effects are temporary at best and a high fiber diet definitely leads to very serious GI problems!

If you do have any gastric issues at all, remove all grains, sugars, starches, fibers or gums from the diet, consume modest amounts of soluble fiber to feed the good intestinal flora and supplement those bacteria with enteric-coated probiotics, beneficial yeasts like *S. Boulardii* and maybe some digestive enzymes until any constipation, diarrhea, cramping or bloating are under control. If diarrhea is the main problem, cut back or eliminate sweet fruits or all fruit for a while as well as dairy products, not even raw or cultured milk products to start! Do not drink coffee or tea on an empty stomach or just quit drinking them. Water should be your only other beverage. A little raw honey is permissible.

If you experience constipation when switching to any low carb diet, *do not use any OTC or prescription laxatives or fiber supplements of any kind as you will eventually become dependent on them and they lead to disease!* Pharmaceutical companies pay pennies on the ton for cattle feed (wheat bran) or chicken feed (psyllium husks) and process these into fiber supplements for people. It's like a license to print money but these products have *nothing to do with human digestive health* or prevention of disease no matter what their advertisers may try to claim!

2. If I stop eating grains, legumes and dairy won't I be missing important nutrients from my diet? Simply look at the USDA nutrient database <http://www.nal.usda.gov/fnic/foodcomp/search/> and compare for yourself *equal-calorie-servings* of grains, legumes or even dairy versus fruit, meat, fish or vegetables. Neolithic foods such as grains, beans, potatoes and dairy are all remarkably weak in micronutrients but Paleo foods are full of vitamins and minerals!

In fact, grains, beans and potatoes (GBP) are the *original* “junk foods” because they are high in starch, devoid of real nutrients and they *crowd out the fats, proteins, fruits and vegetables we should be eating* because humans actually prefer GBP once they are exposed to them! Why do you think the buffet table at every all-you-can-eat restaurant is loaded with dishes of GBP “comfort foods”?

Also, gluten-containing grains and dairy products contain protein fractions (*exorphins*) that actually stimulate the same opiate receptors in our brains that are triggered by morphine, heroin or Vicodin!

No wonder we have an obesity epidemic in this country, these empty-calorie junk foods get us “high” and then we “jones out” for another fix when we start to “crash”! Junk food manufacturers are well aware of these facts. When you factor in the toxicity of GBP plus how they mess with our hormones particularly Insulin and Leptin which leads to a host of modern diseases, you won’t be missing anything except an early grave by eliminating *all* Neolithic foods from your diet!

3. Hey wait a minute, if I completely cut out dairy where will I get my calcium? If you were to compress all of human history from our earliest hominid ancestors to modern H. Sapiens onto an American football field you could represent our roughly 2.5 million year timeline on this planet from the 0-yard-line to the 100-yard-line.

Early man existed just fine without cow’s milk or dairy products until the 99.5-yard-line; to me this question is kind of like when new moms ask their pediatrician if it’s ‘OK to breast-feed’ or ‘will I know how to breast-feed my baby when the time comes?’ Uh yeah, it’s OK, otherwise the human race would have perished long ago and we wouldn’t even be having this conversation now would we?

An evolutionary perspective suggests we are designed to get calcium from green leafy vegetables not from milk produced to nourish other animals’ offspring and indeed, the Paleo diet supplies plenty of magnesium and sufficient calcium without grains, legumes or dairy products. On a Paleo diet our digestion is in top form and we absorb minerals very well because they are not turned into *phytates* (salts of phytic acid) and excreted like when we consume grains. Magnesium helps us use calcium more efficiently but our Standard American Diet is deficient in this mineral so you should add a supplement at least to start with. The SAD leads to Leptin resistance, hypercortisolism, then Insulin resistance and this cascade of hormone dysregulation causes us to leach calcium from our bones.

Some of that calcium is excreted, the rest remains in the bloodstream which helps to calcify the LDL Type B particles that are sticking to the walls (*endothelium*) of our inflamed blood vessels creating plaque which leads to atherosclerosis and eventually heart attack or stroke.

Oh yeah, the leached calcium creates less bone density just in case you miss out on the fun of a heart attack or stroke, you can still get osteoporosis. Again, if “Milk does a body good”, why do US citizens consume such large amounts of dairy per capita and yet we have one of the highest rates of osteoporosis in the world and new injectable drugs for this condition every few months on TV?

4. Eating 35-40% of energy from protein is dangerous; it’s toxic and everyone knows meat gives you cancer! People tend to freak out over what happened to some early American pioneers when wagon trains were stranded on the prairie for months and months. Without any fresh produce and only lean game to hunt some settlers died and this phenomenon became known as “rabbit starvation”.

Not to worry folks this is not going to happen on a Paleo diet because we are going to mix our protein with plenty of healthy fats and lots of fresh fruits and vegetables; in this way it is impossible to overeat on proteins because protein is the most satiating of foods, followed closely by fats. Guess what foods provide the least satiety? Yep that’s right folks, carbs.

In fact overeating of breads, cereals, pasta, rice and so on lead to Leptin and Insulin resistance so these foods actually make us think we are still hungry causing us to overeat even more. The whole myth of “healthy grains” would be comical if it wasn’t so perverse because this healthy grain myth causes some pretty awful but preventable diseases which leads to needless pain and suffering, not to mention the billions of dollars that it wastes in our health care system.

As far as linking cancer to red meat consumption, I’m sure the beef or lamb in question was grain-fed. Cows and sheep cannot digest grains any better than humans can, it makes them sick and fat just like it does to us, so yes, those meats are higher in *palmitic acid*. There is nothing wrong with grass-fed beef or lamb; those meats are full of healthy fats like oleic acid, omega-3 fatty acids and healthy trans-fats like conjugated linoleic acid (CLA) not to mention protein which we really need in abundance!

No, you cannot get enough high-quality protein from plant sources only; yes, they will keep you alive for *a while* but the human animal will fail to thrive on these “third world” proteins, no matter how you try to combine them. Even Frances Moore Lappé has debunked her own “*Diet for a Small Planet*”. We *need* animal fats, proteins & cholesterol to form the substrates for synthesizing all our hormones!

By the way, cancer is really not that big a mystery; when we consume grains and dairy, we become Insulin and Leptin resistant which over time leads to hyperinsulinism (chronically elevated levels of insulin) and systemic inflammation. These conditions up-regulate our levels of insulin-like growth factor (IGF-1) because inflamed tissues need to be repaired so more IGF-1 is needed to promote higher cell growth rates.

The faster cells are replicated the more likely “copying errors” or damage to our DNA can occur which can lead to tumors or uncontrolled cell growth. Not to worry folks, our cells have a built-in safety net that protects against uncontrolled cell growth called *apoptosis* (cell death) which is regulated by retinoic acid, a derivative of Vitamin A; however, our hyperinsulinism has taken this retinoic acid mechanism off-line so we have no safety net to protect us against uncontrolled cell growth and the resulting tumors this can lead to, oops.

5. You mentioned grass-fed meats, what about fowl and pork; shouldn’t they be grass-fed or organic too? Chickens, turkeys, ducks and pigs will always need a grain supplement in their diet no matter what you’ve been told on this subject and anyway, fowl and pigs are able to digest grains.

Ideally you want your chickens and pigs to be cage-free and roam around the yard so they can eat a *varied diet*, not just grains; the term organic means that their feed was organically grown (no chemical fertilizers, pesticides or fungicides) but I think it is more important that these animals were raised without any growth hormones or antibiotics.

Likewise, fish should be wild-caught, not farm-raised. When fish are wild fed, when chickens and pigs roam free and when cows and sheep are pastured and fed on grass, the flesh of these animals and fish and the flesh and eggs of the fowl thus raised are very high in omega-3 fatty acids. N-3 fatty acids are anti-inflammatory whereas N-6 fatty acids which come from improperly raised meat, eggs and refined vegetable oils are pro-inflammatory, *no bueno*. Grass-fed beef, lamb and wild salmon are expensive so you might want to consider adding an omega-3 supplement like red krill oil, *muy bueno!*

6. Isn’t eating so much meat damaging to your kidneys? No, not in my opinion; high protein *only* causes kidney problems given a backdrop of high carbohydrate intake like the SAD. Typically persons that have kidney disease are encouraged to eliminate animal proteins, but a ketogenic version of the Paleo diet that is low in protein, very low in carbs and higher in fats can be very therapeutic for kidney patients, but you don’t have to take my word on this; here is one of my nutritional gurus, Robb Wolf to explain the details: <http://robbwolf.com/2011/06/16/clearing-up-kidney-confusion-part-deux/>

7. I'm in fairly good shape, no serious medical problems but I just need to lose some extra weight. Is a Paleo diet the best way to do this? Yes, absolutely despite what some recent media articles, Dr. Oz or Dr. Melina Jampolis are saying but with one caveat: the specific prescription for your Paleo weight-loss diet really depends on whether you are just a little overweight or overweight by 30 lbs or more. The old paradigm that obesity is caused by an imbalance of calories-in versus calories-out is too simplistic in many cases. The obesity “equation” can be more complicated than that unless you’re talking about losing just 10 pounds or less. In that case, ramping up your activity and cutting calories so you expend more energy than you take in may get you to your weight-loss goal as long as your hormones are working OK and your metabolism burns carbs and fats equally well.

However if you’re overweight by 25-30 pounds or even greater you very likely have Leptin resistance and also quite possibly hypercortisolism (chronically elevated levels of this stress hormone!). Realize that your liver is really the “engine” that drives your metabolism; the thyroid is like the “gas pedal” and the satiety hormone Leptin is like your factory-installed “firmware” working with the hypothalamus in the brain which is the microprocessor “chip” that monitors and regulates what the engine is doing and how efficient it is. Our first dose of Leptin is “factory-installed” because we get it from our mother’s colostrum which is just another reason breast-feeding is so important. These four elements (liver, thyroid, Leptin and brain) along with your food choices and the timing of those control whether you will remain lean and trim or whether you will gain adipose tissue as you age.

If you are overweight by those 30 lbs. or more then your body is producing plenty of Leptin but what happens next is the hypocretin neurons in your hypothalamus don’t “hear” this signal anymore, so the brain becomes Leptin “resistant”. With time the liver becomes resistant to Leptin and eventually your muscles become Leptin resistant as well. Sometimes, doctors or nutritionists go so far as to run some blood work for thyroid function because they get the general idea some kind of metabolic derangement is at play here but often the thyroid panels like TSH, thyroxin (T4) and triiodothyronine (T3) come back normal.

The problem is that if Cortisol is elevated, excessive CRH (Cortisol releasing hormone) *blocks* thyroid stimulating hormone (TSH) which effectively shuts off your “gas pedal” so those thyroid panels were meaningless if your other hormones are in this dysregulated state. If you’ve struggled with obesity for a long time you can exercise until the grass-fed cows come home, but if Leptin resistance is the real culprit, the liver will store extra carbohydrates as belly fat and the muscles cannot burn fat either no matter what kind of exercise is done and this can be why your weight-loss is stalled. I hope you are beginning to understand this situation is definitely not as straight forward as the old calories-in-calories-out theory that we’ve all been led to believe! Extensive blood work and the correct interpretation of those labs by a forward-thinking endocrinologist can make all the difference in solving the weight loss puzzle for patients that are not getting the help or results they’re looking for.

In these cases, again a ketogenic (fat-burning) version of the Paleo diet with a few extra rules including, oddly enough, *no exercise* to start with, can be very effective at reversing Leptin resistance and kicking your weight-loss into high gear. Once you are Leptin sensitive again, then we can add some weight-lifting and running wind-sprints to accelerate the process and get you down to your ideal weight. Of course, besides *lookin-good-naked*, getting your endocrine system back on track will do wonders for restoring all kinds of other important health benefits like increased energy, better mood and mental focus *not to mention* increased libido and longevity!

Some material paraphrased from *The Paleo Solution: the Original Human Diet* by Robb Wolf, Victory Bell Publishing, 2010; *Food and Western Disease* by Staffan Lindeberg, Wiley-Blackwell Publishing, 2010; *Dangerous Grains* by James Braly and Ron Hoggan, Avery Books 2002, *Fiber Menace* by Konstantin Monastyrsky, Ageless Press Publishing, 2008; *Breaking the Vicious Cycle* by Elaine Gottschall, The Kirkton Press 1994; and www.jackkruse.com