

The Paleo Diet

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The Paleo Diet, popularized by the 2010 book by Loren Cordain, is based on foods that “mimic those of our pre-agricultural, hunter-gatherer ancestors”. The premise behind the diet is four-fold: 1) we haven’t changed genetically from our Paleolithic ancestors; 2) the diet consists of “foods we were designed to eat;” 3) our ancestors did not suffer from diseases common in Westernized societies; and 4) the foods our hunter-gatherer ancestors ate were healthier than a typical Western diet and will aid weight loss.

All versions prohibit processed foods of any kind, because humans did not invent such foods until after the Paleolithic period. This is reasonable and common to many diets because processing cuts out essential nutrients and adds carbohydrate and fat calories that are ‘empty’ of redeeming nutritional value.

The diet allows meat, seafood, eggs, tuber, most vegetables, fruits, nuts, animal fats and seeds. “Healthy” oils are allowed, but requires ‘processing’ nuts, olives, flax, coconut and avocado, which strikes me as a bit arbitrary about the rules. It eliminates sugar, dairy, grains, legumes, vegetable oils, processed food and non-food ingredients like preservatives and artificial sweeteners. Various versions allow some dairy, rice (officially a grain, so it’s not clear why it would be an exception) and honey. Others prohibit foods that come from a long distance, because they are not eco-friendly and hunter-gatherers didn’t eat food shipped in by truck.

The diet is supposed to be high in protein, fiber and potassium, low in carbohydrate, sugar and sodium and have a moderate to high amount of fat. Simply by eliminating most carbohydrate foods, the plan is just another *low-carb, high protein, moderate fat diet, fitting in somewhere between South Beach and Atkins.*

If one eats a moderate amount of a balance of all the allowed foods, it’s not a bad diet, especially if it enables maintaining ideal weight. Detractors mostly object to the verity of the underlying premises.

Paleo fanatics say we are genetically the same as Paleo Homo sapiens, designed to eat the foods they did. While some people may act like our Paleolithic predecessors, we are not biologically identical to them, nor do we have access to the foods they ate. Humans, animals and plants have evolved.

If humans, the environment and available foods had not changed over time, we would still be hunter-gatherers eating mammoths and berries. We wouldn’t have been smart enough to harness fire, make tools or breed animals and birds for optimal food value and plants for variety and survival in different climates. Humans today have larger brains and different teeth. Some genetic mutations have led to disease resistance. Others, like the gene for lactase, which enables milk sugar digestion, have changed what we are capable of digesting.

The Paleolithic period spanned from 2.4 million to about 15,000 years ago, before agricultural and industrial development. That’s a lot of time, during which the Homo (humanoid) genus evolved to Homo sapiens (anatomically modern humans) between 200,000 and 100,000 years ago. Theoretically the ancestors mentioned in Paleo literature are Homo sapiens, because they really are genetically similar. Previous humanoids had harnessed fire and may have used it to cooking. They had fashioned tools for fishing and hunting. In addition to animals, fish, nuts and berries, they probably ate plant foods, but who knows what varieties were available more than 15,000 years ago. Long before the end of the Paleolithic period wild grains were gathered and consumed, but not yet farmed.

We are not the same as any of the string of humanoids populating the massive Paleolithic period. We don’t have the same animal and plant species as they did to eat if we wanted to. Hunters hunt species different from Paleolithic times. The rest of us eat the flesh of animals and birds that, through breeding, no longer have the lean bodies of wild animals. We eat farmed fish. Farmers have bred vegetables and fruits for variety, size, flavor

and number of seeds. The vegetables of today certainly are different from those of yesteryear.

Not all hunter-gatherer societies over millennia ate the same foods. They ate the food available to them, unlikely mimicking the extensive Paleo diet list. Current hunter-gatherer peoples continue to do so. Alaskan Inuits eat mostly fish and seafood, people in middle Africa subsist on tubers, and a sub-Saharan African tribe consumes a varied, plant-based diet (seeds, nuts, vegetables and fruits). None of these diets are 'complete' in terms of an adequate variety of nutrients.

Paleo advocates lumped these food patterns together, cherry-picking foods from a variety of hunter-gatherer diets to prevent deficiencies. Someone who eats a balance of all the allowed foods will not be malnourished. Someone who omits seeds and vegetables won't fare as well. Those who eschew animal products *could be protein and B12 deficient*.

The notion that hunter-gatherer people are/were healthier and immune to chronic diseases common in Western civilization is blind to the facts. Paleolithic peoples' life-span was about 33 years, not long enough to acquire 'chronic' diseases that typically don't kill modern people until middle and old age. A few may have lived longer, but many children died before adulthood. They may not have died because of their diet, but they didn't live long enough to find out if their diet would have led to heart disease and stroke.

A study of mummies' arteries from Paleo hunter-gatherer societies used CT scans to detect calcified deposits in arteries, which are tell-tale signs of atherosclerosis. They found probable or definite atherosclerosis of a variety to arteries in 34% of 137 mummies, 38% of 76 ancient Egyptians, 25% of 51 ancient Peruvians, 40% of five Ancestral Puebloans of southwest U.S. and 60% of five Unangan of the Aleutian Islands. The older the person was, the more likely they had vascular disease and the more likely it involved more arteries. The same is true now – eventually everyone gets vascular disease with age, some later than others.

Even current hunter-gatherer tribes are not particularly healthy. The Hiwi, a group that lives in Western Venezuela and eastern Colombia, are smaller and less well-nourished. They are hungry, suffer from endemic parasitic infections and have a low survival rate into adulthood.

Is the Paleo diet any healthier or conducive to weight loss than any other diet that prohibits whole food groups? Unfortunately so far, studies have been of short duration (3 months or less), examined small numbers of people and most often lacked a control group. Diabetics following the Paleo diet generally had lower blood sugar than those on a standard diabetic diet. Cholesterol and triglyceride levels improved, but there were no control groups for comparison. People lost some weight, three to eleven pounds over three to twelve weeks. Without long term studies comparing people who don't cheat on the Paleo diet to people who don't cheat on another diet type, we can't say if it is any better for us than any other calorie-controlled food pattern.

This is similar to the high vs. low fat diet debate that raged on for years. Those studies started with small, poorly designed studies that suggested that high fat dieters fared better. Long-term analyses disproved this, as outcomes converged on similar metabolic outcomes and amount of weight lost in longer term studies. In terms of health outcomes, such as disease and longevity rather than sugar and cholesterol levels, 'prudent' diets that do not eliminate whole food groups fare much better.

Homo sapiens were not designed to subsist on a single diet type. In fact, humans are the only animal to adapt their diet according to availability, social norms and health. A fascinating book, Consuming Passions, The Anthropology of Eating by P. Farb and G. Armelagos (1983, Washington Press), describes ways in which dietary habits differ throughout the world and have changed over time in ways that enabled survival of the species.

Ancient and current hunter-gatherers hunted and gathered out of necessity. Modern day people with access to a huge variety of foods eat according to their version of a hunter-gatherer diet because they want to. Do it well and there's no harm done. In my experience, any diet that doesn't accommodate the human desire to eat dessert is bound to be short-lived, or at least conducive to cheating.