

## Paleolithic Diet:

FC Note: Want to know how to eat for optimal health and lean-ness? While no one diet or eating plan is completely perfect for every person, it is very difficult to go wrong following the plan below. This is about as simple as it gets.

*Nutrition Lessons from the Stone Age. Clues to better eating go back 40,000 years.*

*From Tufts University Nutrition Newsletter*

When you think of our prehistoric ancestors who walked the earth from 10,000 to 40,000 years ago, perhaps you think of short, brutish people with small brains who didn't walk fully upright and who always lived short, unhealthy lives. Nothing could be further from the truth. ***Our Paleolithic predecessors were, in fact, a tad taller than we are (an average of 5 feet, 10 inches for men and 5 feet, 6 inches for women), with brains fully as big as ours.***



**And they were remarkably healthy.** Exhumed remains show that their bones were stronger than the bones of people living today, and they didn't even get cavities. Furthermore, they had "the physique and cardiovascular conditioning of athletes," says Barry Bogin, PhD, a professor of anthropology and chairman of the Department of Behavioral Sciences at the University of Michigan, Dearborn. That's a far cry from today's office workers, TV watchers, car drivers, and computer operators, who spend most of the day sitting. Granted, only about nine in 100 Paleolithic people reached their 60s. Most died young, either from physical stresses such as hunting down large, dangerous animals for food; infections for which there were no antibiotics; or complications in childbirth for which there was no medical intervention. But the ones who did make it to old age made it relatively disease-free--***no heart disease, diabetes, high blood pressure, or obesity.*** That is, they arrived at their "golden" years in pretty much the same shape they were in at age 25.

Imagine if, with all of the technology that allows most of us to live to old age, we could get there as fit and healthy as our prehistoric forebears. Well, by adopting some of their eating and exercise habits, which were much different from ours, we largely can. After all, our Stone Age ancestors were genetically the same as we are; 40,000 years is the blink of an eye in evolutionary terms. Thus, if we follow their lead, we can expect much the same successful outcome.

Of course, it would be impossible to adopt the Paleolithic diet wholesale. Nor would you want to. It would mean giving up all processed foods, including not just chocolate cake and ice cream but also many healthful, convenient items such as pizza, yogurt, and various high-fiber, low-sugar breakfast cereals. However, by **making a move toward our ancestral dietary pattern, you can greatly improve your dietary profile--and your health as well.**

### What the Paleolithic Diet Looked Like

Nutritional anthropologists have several ways of determining the kinds of foods people ate tens of thousands of years ago. One is to chemically analyze bone for trace elements such as calcium. Fossilized human waste also contains numerous clues as to what was in the diets of the time. And what such remains have suggested is that just like people's diets around the globe today, the Paleolithic diet varied depending on where people lived.

For instance, in Siberia, whose climate doesn't favor the growth of edible plant foods, people got more calories from animal foods. Accordingly, they ate more protein--and fat--than people living, say, in the part of Africa that's currently Tanzania, where the bulk of calories was consumed from vegetables and fruits.

Even with such differences, however, there is much about the Paleolithic way of eating that did not vary from locale to locale. And it is these similarities that provide insight into ways we could improve our own diets.

**Sugar Shortage** Stone Age people hunted and gathered; they did not farm. Thus, there were no sugarcane plantations. The only source of pure sugar was honey, and it was available only seasonally, from 2 to 4 months per year at most. Furthermore, honey was not easy to come by. According to *The Paleolithic Prescription* (Harper & Row), by Emory University anthropologists S. Boyd Eaton, MD, Marjorie Shostak, and Melvin Konner, MD, PhD, paintings in Spain dating back 10,000 to 12,000 years show a woman, surrounded by bees, climbing to obtain honey from a tree. There have also been found Paleolithic rock wall paintings showing how people robbed bees' nests. No wonder the absence of tooth decay in Paleolithic times is well documented (teeth are the best preserved of human remains).



Today, of course, it's a different story, and it's not just about dental hygiene. Dietitian Elizabeth Somer points out in her book, *The Origin Diet* (Henry Holt and Company), that Americans eat more refined sugar in a single day than our ancestors ate in a lifetime--20 teaspoons. Over the course of a year, that tallies up to 146,000 calories--enough to become 42 pounds of body fat if the calories are not burned via physical activity. Soda pop, cakes, cookies, ice cream, ketchup, barbecue sauce, many breakfast cereals, jarred pasta sauce, canned ravioli, some salad dressings--we eat a lot of foods that contain sugar in one form or another.

**Little Sodium** Based in part on research of the few hunter-gatherer societies still remaining in the world, nutritional anthropologists have deduced that our **Paleolithic forebears probably ate fewer than 1,000 milligrams of sodium per day**, as opposed to the 4,000, 5,000 or 6,000 milligrams that most Americans currently average--much of it from all the highly processed foods in the modern diet. (***The closer a food is to its natural state, the less sodium it will contain.***) And by all indications, they did not suffer from high blood pressure--not even in old age, when sodium in the diet has the strongest effect on blood pressure levels.

**Slashing Saturated Fat** Currently about 1 out of 8 calories that Americans eat comes from saturated fat, the kind found in meat and full-fat dairy products and which can contribute to clogged arteries--and thus raise the risk for developing heart disease. (Three quarters of our saturated fat comes from ground beef, reports Michigan's Dr. Bogin. Americans eat an estimated 200 hamburgers per second!)

The "Paleos," on the other hand, ate **hardly any saturated fat**, even in locations where people obtained most of their calories from meat. That's because their **meat didn't come from animals that were fattened before slaughter to ensure well-marbled, tender flesh**. It came from such species as mammoths, woolly rhinoceros, and bison who roamed free--and were much leaner than today's meat-producing animals. What fat they did have was largely unsaturated. Some of it, in fact, was omega-3 fatty acids, similar to the kind found in fish.

For comparison, today's farm-raised choice sirloin steak has seven times the fat of bison, say the authors of *The Paleolithic Prescription*. Lamb loin has eight times more fat than wild goat (and nearly three times the number of calories).

The best approximations today to the meat back then, at least in terms of fat content, are skinless chicken breast and fish. Other good sources of protein low in saturated fat are nuts and seeds (also enjoyed in prehistoric times), the occasional egg, and legumes like black beans and kidney beans.

**Lots of Vegetables** Because there are a limited number of animal foods that have nutrition profiles similar to those of prehistoric animal foods, it would be easier for most people trying to eat better to follow the example of predominantly plant-eating Paleos. That is, they should **eat a largely vegetable- and fruit-centered diet with modest amounts of meat**. (European Paleos, from which many Americans descended, ate that way, as did the large majority of Africans.)

Ten daily servings of produce more closely approximates Paleolithic produce consumption than the five to nine servings recommended by the Food Guide Pyramid. And just about all of the produce chosen should be **deep green, red, yellow, and orange in color, because those**

**types contain the most vitamins and minerals.** Potatoes, which currently make up about half our vegetable servings (largely in the form of French fries), do contain nutrients such as vitamin C and potassium, but they don't have as much to offer as a wide variety of deep-colored plant items.

**Water-Wise** Pretty much the only fluid our Paleolithic ancestors drank to quench their thirst was water, which, of course, has no calories. Alcohol, which makes up 7 to 10 percent of Americans' calories today, essentially didn't exist back then because humans hadn't yet discovered how to systematically ferment grains and grapes. And certainly, there was no soda pop, sports drinks, lemonade, fruit punch, or other sugary beverages.

**Filling Up on Fiber.** Americans today average about 15 grams of fiber, and health promotion authorities would like to see that number rise to 25 grams. But fiber consumption in Paleolithic times reached 100 to 150 grams a day among people who weren't primarily meat eaters. All the vegetables and fruits, the tubers, nuts, and seeds--these contributed a lot of fiber, which, at the very least, prevented constipation as well as illnesses like diverticulitis.

Don't aim for 100 grams of fiber daily--it would be nearly impossible given today's food supply. But you could easily approach 25 to 35 grams simply by eating more produce (and whole grains--see "Redefining the Grains Group" below).

**Dairy Dos and Don'ts.** If Paleolithic man had had a Food Guide Pyramid, it wouldn't have had a high-calcium dairy group. The only milk product in the diet was mother's milk, since cows and goats were not herded. But **their plant foods, including their greens, were so high in nutrients that they averaged about 1,900 milligrams of calcium a day.** Since today's farmed produce isn't as nutrient-rich, it's a good idea to include milk and other dairy products in the diet. But milk should be skim or 1 percent, and yogurt should be low-fat or non-fat. The fat in dairy foods is largely saturated.

**Redefining the Grains Group.** Processed, or refined, grain products--including white bread, pasta, bagels, white rice, and most breakfast cereals--didn't exist in the Paleolithic era. Our long-ago ancestors didn't farm wheat, corn, or rice. Instead, their complex carbohydrates came from foods like wild fruits that no longer exist and uncultivated aquatic grasses and wild grains.

Grains in the modern diet that come closest to those are whole grains, such as those in whole grain breads and cereals. Unlike processed grains, they contain fiber along with a number of trace minerals. The Food Guide Pyramid says to shoot for six to 11 servings of grains a day, refined and whole-grain combined, but five to six servings of whole-grain items and very little in the way of refined grains would be more in line with the Paleolithic way of eating.

#### WHAT TO LOOK FOR AT THE SUPERMAKET:

DO'S	DON'Ts
<p><b>MEAT and POULTRY</b></p> <ul style="list-style-type: none"> <li>✓ Fish: especially: salmon, halibut, pike, mackerel, sardines, trout and herring</li> <li>✓ Eggs: especially organic or "Smart eggs"</li> <li>✓ Poultry: chicken, turkey, duck etc. (especially free range)</li> <li>✓ Beef: free range or grass fed only</li> <li>✓ Buffalo, elk and venison</li> </ul>	<ul style="list-style-type: none"> <li>☒ Domestic (grain fed) beef</li> <li>☒ Hotdogs, sausage and conventional deli meats</li> </ul>
<p><b>VEGETABLES</b></p> <ul style="list-style-type: none"> <li>✓ Leafy Greens: lettuce (not iceberg), kale, spinach, cabbage, greens, etc.</li> <li>✓ Vegetable flowers: broccoli, artichokes, brussel sprouts, cauliflower</li> <li>✓ Stem vegetables: celery, asparagus, leeks, rhubarb</li> </ul>	<ul style="list-style-type: none"> <li>☒ Potatoes (mashed, baked, french fries, chips), sweet potatoes, yams, beets</li> <li>☒ Less focus on the cooked carrots, peas and corn (still are very nutritious)</li> </ul>

<ul style="list-style-type: none"> <li>✓ Fruiting vegetables: cucumbers, eggplant, peppers, summer squash, tomatoes</li> <li>✓ Sea vegetables: nori, wakame, hijiki, kombu, kelp</li> <li>✓ Sprouts: onion, garlic, alfalfa, red clover</li> <li>✓ Algae: chlorella, spirulina</li> <li>✓ Herbs and wild plants</li> </ul>	
<p><b>ROOT and TUBERS</b></p> <ul style="list-style-type: none"> <li>✓ Ginger, radishes and onions</li> </ul>	
<p><b>NUTS and SEEDS (all kinds, unsalted)</b></p>	
<p><b>LEGUMES</b></p> <ul style="list-style-type: none"> <li>✓ Beans (black, red, green, pinto, lima, soy, garbonzo etc)</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Watch out for salt</li> </ul>
<p><b>FRUITS</b></p> <ul style="list-style-type: none"> <li>✓ Apples</li> <li>✓ Melons</li> <li>✓ Berry fruits (blueberries, cranberries, strawberries, currants, raspberries etc.)</li> <li>✓ Peaches, plums, apricots</li> <li>✓ Cherries</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Bananas, pineapples, grapes,</li> <li><input checked="" type="checkbox"/> Fruit juices (super calorie dense, but a better choice than soda!)</li> <li><input checked="" type="checkbox"/> Sauces</li> </ul>
<p><b>GRAINS and CEREALS</b></p> <ul style="list-style-type: none"> <li>✓ Whole oats</li> <li>✓ Pot barley</li> <li>✓ Whole grain rice, basmati rice</li> <li>✓ Super dense, dark, whole grain breads</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> No processed flours, grains, refined sugars, white rice, cereals, pasta (baked products, chips, junk food, cookies, etc.)</li> <li><input checked="" type="checkbox"/> White bread (bagels, buns, muffins, tortillas, waffles, rolls...most of the "American diet" in toher words). If you do eat bread, the heavier, darker and denser, the better!</li> </ul>
<p><b>DAIRY</b></p> <ul style="list-style-type: none"> <li>✓ Hard cheeses</li> <li>✓ Skim and lowfat milk</li> <li>✓ Naturally sweetened yogurt</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> High fat milk and cream</li> <li><input checked="" type="checkbox"/> Processed chesses</li> <li><input checked="" type="checkbox"/> Sweetened yogurt and milk</li> </ul>
<p><b>WATER</b></p> <ul style="list-style-type: none"> <li>✓ Lot's of it!!!!</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Stay away from sticky sweet sodas and soft drinks</li> <li><input checked="" type="checkbox"/> Booze and beer have a lot of empty calories</li> </ul>

**FC Note:** For health and a healthy bodyweight, the Paleolithic Diet (PD) is an excellent foundation to base a personal eating plan. For a non-exerciser, it is fine as is. However, it is not a high performance diet and would not be ideal for serious athletes or exercisers. There are not enough high-glycemic carbs to fuel and refuel an active person.

This is why the plan has been revised in the form of the Paleo Diet For Athletes—described in a book written by Loren Cordain and Joe Friel. In a nutshell, the Paleo Diet for Athletes (PDA) adds traditional non-PD high glycemic carbohydrate sources back into the diet at certain times of the day—depending on a person’s activity level. Those times include:

- **Before exercise** – no less than 2 hours before a hard workout or event. Moderate to high glycemic carbs and some protein. The closer to the workout/event you eat, the higher the carb content needs to be (fruits and protein, sport bars, carb/protein drinks, etc).
- **During exercise** – for sessions lasting 60 minutes or more, take in high glycemic carbs (fruit, fruit juices, sport drinks, etc.)
- **30 minutes post exercise** -- A ratio of 4/1 carbs to protein after endurance activities (running, cycling, etc). A 2/1 carb to protein ratio after strength training workouts.
- **90 minutes post exercise or at your next meal** – High to moderate glycemic carbs and protein. Use a 2-4/1 ratio of carbs to protein. More carbs following endurance activities, less carbs and more protein following strength activities.
- The rest of the time, go back to the regular PD template.
- Breakfast would be the only other time athletes/exercisers would want to add non-Paleo carbs into their plan—to help with muscle glycogen (stored energy) levels.
- Drink plenty of water throughout.

As you can see, a Paleo Diet for Athletes resembles more of a regular wholesome food diet often recommended by the ADA. The key message here is that you manipulate your additional carb intake to help your exercise performance and recovery. You also add or remove carbs from the Paleolithic Diet template to gain or lose weight.

Regardless, the basic PD template is full of quality protein and nutrients your body needs for optimum health.