# Caveman Cuisine

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Lowfat diets, claim the pundits of medical orthodoxy, have been associated with good health and longevity throughout the globe and since the dawn of time. The research of Weston Price proves otherwise. From the Eskimo of Alaska to the hardy Alpiner, from Gaelic villager to African tribesman, Price discovered that all healthy indigenous people had a plentiful source of animal fat in the diet. Such Neolithic groups could still be found when Price embarked on his eventful travels back in the 1930s. But no one, of course, not even the indefatigable Dr. Price, could visit our Paleolithic forbearers, the so-called cave men. The lack of direct evidence about our hunter-gatherer ancestors-who by definition neither cultivated crops nor domesticated farm animals-allows limitless conjecture about the content of their diets. The low fat school claims that the cave man ate lean meat, supplemented by copious amounts of plant foods in the form of sprouts, roots, fruits, berries and leaves; dissenting investigators assert that the cave man imbibed animal fat first and foremost, along with the meat to which it was attached, and very little in the way of foods from the vegetable kingdom. Both schools of thought are in agreement that the cave man diet was otherwise Spartan, lacking foodstuffs that were either salty or sweet.

Dr. Walter L Voegtlin argues for the high fat model in his book The *Stone Age Diet*, published in 1975. Humans are carnivorous animals he asserts, and the Stone Age diet was that of a carnivore-chiefly fats and protein, with only small amounts of carbohydrates. He notes that like the carnivorous dog, man has canine teeth, ridged molars and incisors in both jaws. His jaw is designed for crushing and tearing, and moves in vertical motions. Mastication of his food is unnecessary and he does not ruminate. His stomach holds two quarts, empties in three hours, rests between meals, lacks bacteria and protozoa, secretes large quantities of hydrochloric acid and does not digest cellulose. His digestive tract is short relative to body length, his cecum is nonfunctional and his appendix vestigial. His rectum is small, contains putrefactive bacterial flora and does not contribute to the digestive process. The volume of feces is small; digestive efficiency borders on 100%; his gall bladder is active and well developed. Both the dog and man feed intermittently and can survive without a stomach or colon. The herbivorous sheep, by contrast, lacks canines, has flat molars and incisors only in the lower jaw. His jaw is designed for grinding and rotary movments. Mastication and rumination are vital functions. His stomach holds eight and one-half gallons, contains bacteria and protozoa, never empties and has but weak production of hydrochloric acid. His colon and cecum are long and capacious; the cecum performs a vital function; the bacterial flora of his rectum is fermentative rather than putrefactive; feces are voluminous; gall bladder function is weak or absent; and total digestive efficiency is 50% or less. The sheep feeds continuously. He cannot live without his stomach or colon. His entire digestive tract is about five times longer, as a ratio of body length, than that of man and his dog.

Voegtlin argues that gross differences in the anatomy of man and the herbivorous animals make him unable to successfully adapt to a diet based on plant foods, particularly carbohydrate-rich grains, as well as to a diet in which milk products, rich in lactose, predominate; and that the whole range of modern diseases stems from his abandonment of the food choices of his primitive ancestors, based largely on meat and rich in fat. He notes that, with the exception of vitamins C and K, all essential nutrients can be derived from animal foods, and that the cave man diet was certainly much richer in vitamins and minerals than our own. Modern devitalized plant foods-such as sugar and white flour-only hasten our decline.

A decade later, in 1988, Dr. Boyd Eaton published the *Paleolithic Prescription* in which he argues that

the cave man diet was low in fat, particularly saturated fat, low in salt and rich in dietary fiber from plant foods. His Paleolithic prescription for optimum health is, in fact, very much akin to the so-called prudent diet of the American Heart Association. The typical Paleolithic macronutrient profile, he asserts, contained 33% of total energy from protein, principally but not entirely animal protein, 46% from carbohydrates and a mere 21% from fat. Journalist Joe Friel translates these suppositions about Paleolithic eating habits into the following dietary recommendations: Select the leanest cuts of meat (wild game, if possible), trim away all visible fat from meat, include fish and fowl, eat low- or non-fat dairy products and include moderate amounts of monounsaturated fat in the diet in the form of oils and spreads of almonds, avocado, hazelnut, macadamia nut, olive and walnut. He lumps natural saturated fats in with newfangled hydrogenated oils as fats to be avoided. The cave man, it seems, thriving on a diet of lean venison along with roots, shoots and fruits, was altogether politically correct in his low-fat dietary habits.

Or was he? In a recently published collection of essays, *Ice Age Hunters of the Rocky Mountains*, we learn that the hunter-gatherers of the North American continent ate the following animals: mammoth, camel, sloth, bison, mountain sheep, small mammals including beaver, pronghorn antelope, elk, mule deer, horse, llama and large members of the dog family. Mammoth, sloth, mountain sheep, bison and beaver are fatty animals in the modern sense in that they have a thick layer of subcutaneous fat, as do the many species of bear and wild pig whose remains have been found at Paleolithic sites throughout the world. The bison and camel have humps composed largely of tallow. Furthermore, if the dietary patterns of present day African hunter-gatherers can serve as a guide, the Paleolithic hunter preferred the fatty portions of the carcass including organs, brains, tongue, feet and marrow. Archeological remains indicate that whereas meat from game carcasses was often left uneaten, the long bones were carried back into camps and chopped into pieces so that the marrow could be extracted. Organ meats were eaten immediately-and often raw-but muscle meat was preserved by drying, or by mixing it with tallow to make pemmican. Some investigators believe that the cave mans's preference for the fatty portions of his kill led to profligate practices-wasteful killing of mammoths simply to extract their fatty tongues, for example-and that selective hunting of the fattier animals was a prime factor leading to the extinction of large mammals such as mammoths, sloths and rhinoceros.

Bones of the bear predominate in many European sites. Archeologist Myra Shakley reports on an important Neanderthal site in Hungary where 90 percent of the remains were those of bear. Whole carcasses were brought to the site-not just portions as was the case for other animals-and the manner in which the carcasses were cut up suggests that the skins were removed. Obviously the pelts were used to protect the hunter-gatherer from the severe climate. The subcutaneous fat would not have been wasted; in fact, it could have been used for preserving other foods. Altars containing bear skulls found in caves in the Swiss Alps, and dated back as far as 75,000 years, indicated that the bear was worshiped as a sacred animal.

Present-day hunter-gatherers, as well as those of the ancient past, possess greater dietary wisdom than the majority of our modern Ph.D.'s. They understood that a diet of lean meat, lacking in fat, was the surest route to weakness, disease and death. Steffanson, who studied the Eskimos and Indians of the far north, reports that when lean caribou was the only meat available, anxiety set in. These natives knew that a month or more on such meat, without the addition of marine animals or fatty fish, would make them sick and prone to disease. The ancient tribes of the American West would not eat female bison in the Spring because nursing and **pregnant** bison cows burned off their fat reserves during the winter months. In fact, most bison hunts occurred in the late Summer and Fall when the bison were naturally fattened on the ripe grain of prairie grasses. Anthropologist Leon Abrams reports that the Aborigine will throw away a kangaroo he has killed if he discovers that its carcass does not contain sufficient fat. Members of Randolph Marcy's 1856 expedition to Wyoming grew weak and sick

consuming a politically correct low-fat regime of six pounds of lean horse and mule meat per day; Dr. Wolfgang Lutz reports that a very efficient way of eliminating jailed political prisoners in South and Central America is to feed them a diet composed exclusively of lean meat. They soon develop severe diarrhea and succumb. The explanation is that fats contain nutrients like vitamin A that the body needs to utilize the amino acids and minerals in flesh foods; without fat in the diet, the body rapidly uses up its own stores of fat soluble vitamins. When these vital nutrients are depleted, the human organism can no longer fight off disease.

Was the cave man diet simply rich in unsaturated fats, but low in saturated fats? Antelope and caribou fat is over 50% saturated-about the same as beef-and mountain sheep fat would be the similar. Buffalo fat is 56% saturated-more saturated than beef! All ruminant animals contain lots of saturated fat because the protozoa in their capacious guts do an efficient job of saturating the oils found in plant foods-whether these oils come from dried hay or green grass, from feedlot corn or the ripe grains of prairie grasses. (Of course naturally-fed meat is richer in vitamins and minerals.) The bison were hunted in the late Summer and Fall when their fat stores would have been highest. Grazing animals spend several months eating the carbohydrate-rich seeds of wild grasses, which begin to ripen as early as the month of May-grain fattening in feedlots merely mimics this natural process.

Camel fat, from the kind of animal the Neanderthals apparently hunted to extinction, is a whooping 63% saturated! Wild boar fat is about 41% saturated, exactly the same as lard from a domestic pig. Kidney fat-which modern man avoids but which the cave man would have eaten-is highly saturated. Buffalo kidney fat is 58% saturated, antelope kidney fat is 65% saturated, elk kidney fat is 62% saturated and mountain goat kidney fat is 66 % saturated. Caribou marrow has a preponderance of monounsaturated fat, and a small amount of polyunsaturated, but still contains more than 27% saturated fat. Figures for elephant tongue are unavailable but beef tongue is 45% saturated. Bears, which yield 48% of their kilocalories as fat, have a preponderance of monounsaturated fat, the same kind found in olives, almonds and other nuts.

Seafood in coastal regions would also have provided fat for primitive man, particularly the valuable omega-3 fatty acids; insects, grubs and worms are a source of additional fat in all regions except the arctic.

So the high-fat proponents are the most likely winners of the great Paleolithic fat debate; but they are probably wrong in their assertions that plant foods, particularly grains, are new to the human diet. Remains of plant foods at Paleolithic sites include seeds, berries, roots, leaves and bulbs. Sunflower seeds, prickly pear seeds, amaranth seeds and limber pine seeds have been found at Rocky Mountain sites. Various types of nuts were consumed by primitives in the Americas and on the European continent. The amount of plant food in the cave man diet varied according to the climate and locality. Obviously plant foods were minimal in the diets of those in arctic climates, but played a large role in tropical regions. Nuts, of course, provided additional fat. The pecan, consumed in large quantities by the Indians of the Southeast, contains 85% of calories as fat. In tropical regions, palm nuts and coconuts provide large quantities of saturated fats.

Present day hunter-gatherers employ special preparation methods for carbohydrate-rich foods. Acorns, for example, are soaked in water and lye to remove tannins; tubers are buried in the ground, pounded or cooked in hearth ashes; seeds are soaked, pounded and allowed to ferment in various ways. It is safe to assume that the ancient hunter-gatherers employed similar techniques to neutralize the many enzyme inhibitors, irritants and mineral blocking substances found in tubers and seeds. In fact, a large portion of the primitive woman's day was spent in just such preparations-pounding, soaking, sieving, souring and putting the finishing touches on various types of root and seed foods. The men, on the other hand, divided their time between dangerous hunting forays, in which physical stamina and

strength was at a premium, and periods of idleness when they would work on their weapons-and gossip.

So the comparison of the human digestive tract with that of the dog, while interesting, does not tell the whole story. Man can benefit from the many nutrients in plant foods as long as he takes care in their preparation. Primitive plant preparation methods-pounding, soaking, and fermenting-imitate the time-consuming processes that take place in the sheep's digestive tract, beginning with his flat grinding molars and ending with the fermentative bacteria in his lower bowel. The Paleolithic hunter-gatherer had the good sense not only to eat the fattier portions of meat, but to prepare his plant foods correctly. Modern man, particularly the modern professor of nutrition, does not.

Dogs, apparently, were the first animal to be domesticated by man-or, as the current theory holds, the dogs adopted man and went to work for him. A man with five or six dogs can track down and kill the largest of wild animals. Dogs made hunting less dangerous, and allowed our intrepid cave man to stand back and kill his prey with something he threw-an arrow or light spear-rather than with a lance that he physically had to thrust in. Almost certainly, the advent of the dog at man's side hastened the extinction of the large fatty animals that had given the cave man his physical prowess and resistance to disease. But the dog would also have helped the hunter move into his Neolithic phase, by rounding up wild sheep, cattle and goats and helping to keep them in flocks, so that their fatty meat and milk would be available throughout the year. Such milk was much richer than milk from today's Holsteins which have been bred to produce low-fat milk The neo-agriculturist would have been ruled by his tastebuds, rather than modern advertising, and consumed his milk products whole.

Assuming that man's tastebuds are not superfluous, but nature's way of guiding him to the food he needs, let us examine the notion that the cave man diet satisfied only the bitter, sour or pungent portion of his tasting apparatus, and not the salty or sweet. A number of studies report that honey, far from being a rare delicacy, contributed a substantial portion of the calories in many primitive diets. The Hazda of Tanzania, the Mbuti pygmies of the Congo, the Veddas or Wild Men of Sri Lanka, the Guayaka Indians of Paraguay, the Bushmen of South Africa and the Aborigines of Australia, all put a high value on honey and consumed it in large amounts. East coast American Indians consumed plentiful portions of maple syrup, and used it in the production of pemmican. Wild fruits and berries are incredibly sweet at the peak of ripeness, and can be preserved in various ways for consumption throughout the year. Fermented foods of the Eskimo are described as tasting as sweet as candy. Primitive man did not consume refined sweeteners, as we do, but neither did he neglect his sweet tooth.

It is hard to imagine that he would have neglected his taste for salt. It occurs naturally in meat and blood and, as animals seek out natural salt licks, so our sensible cave man would have done the same. The manufacture of salt can be accomplished simply by filling a hollowed out log with sea water and letting the brine evaporate. The evidence of place names in England indicates that salt was the earliest commodity to be traded from the seacoast, or from salt pits, to other areas. In extremely remote locations, such as the Himalayas or the interior of Africa, the ashes of sodium-rich marsh grasses are added to food. It is reported that the members of the Yanomami tribe in the Amazon basin do not take in any added salt. In an apparant adoptive measure, they also excrete almost no salt in the urine.

Milk is salty because mammals need salt for the production of hydrochloric acid and for the development of the brain and nervous system. Without dietary salt, the human mind does not fully develop and man must live, not by his wits like the ingenious cave man from the dawn of time, but as a brute, even if he happens to be born in this modern age.

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