Sorry vegans, but humans were designed to eat (some) meat



Paleo is popular today, but what are the scientific underpinnings for emulating our primitive ancestors? I was an anthropology major in college, so these questions fascinate me, and lately I've been catching up on the scientific literature on the evolution of proto-humans.

It's said that "The Devil can quote scriptures to his purpose," and proponents of vegetarianism tend to use two distinct but somewhat contradictory historical precedents to buttress their arguments.

On the one hand, they accurately claim that chimpanzees, our direct ancestors, subsist primarily on a vegetarian diet, composed of fruits and tubers gathered from their arboreal habitats.

On the other, they point to the efflorescence of civilization associated with the advent of domestication of grains—the Agricultural Revolution that led to the early empires of the Assyrians, the Egyptians, the Inca, and the Aztecs.

But there are some flaws in this line of reasoning.

For one, primatologists now acknowledge that chimps are opportunistic carnivores—they regularly kill small animals, including other monkey species, and even, on occasion, fellow chimps, to augment their plant-based diets.

For another, our chimpanzee forebears spend an inordinate amount of their time foraging and gathering food—and masticating it. Wild plant foods are tough and require lots of chewing, and they aren't very nutrient-dense. Tasked with eating, monkeys have fewer waking hours for the activities that make us uniquely human.

Additionally, larger brains are calorically expensive, demanding more in the way of concentrated nutrients. Animal protein and fat fit the bill; their liberal incorporation into the diets of proto-humans contributed to the surge in brain size that allowed humans to develop tools, language and superior collaboration.

When it comes to whether the cultivation of grains and domesticated vegetable crops "liberated" man to build pyramids and ziggurats, well, there was a steep price to pay. "Cave men" of 25,000 years ate a varied diet and lived in relatively egalitarian clans. Their fossil remains show them to be tall in stature and relatively free of degenerative diseases. While their life expectancy was low due to infant mortality and the tendency of older individuals to not withstand the rigors of ancient life, it was not uncommon for them to live five or six decades.

This changed with the switch to grain dependency. Starvation was more common due to climactic fluctuations and insect predations. Average heights declined, and degenerative diseases became more routine due to lack of nutritional diversity. The

life of the peasant farmer, subject to monotonous back-breaking work, famine, epidemics, and warfare, was less balanced than that of his prehistoric forebears.

This is not to say that early humans continuously feasted on heaping trenchers of raw meat. For some of us, our early impressions of the caveman diet were of Fred Flintstone grilling a brontosaurus steak, or of ravenous Neanderthals devouring the bloody, steaming flesh of a fresh-killed mammoth.

Although written in the 1980s, the novel "Clan of the Cave Bear"envisions a more variegated picture of the Neanderthal diet in keeping with up-to-date anthropological evidence. While the men hunted for plentiful wild game—rabbits, large rodents, deer, birds, antelope, wild sheep and horses, bison, aurochs (ancestors of modern domesticated cattle), mammoths and mastodons—the women were engaged in constant foraging for edible plants and nuts. These required intense processing—pounding, grating, boiling—to liberate their nutrients from their tough fiber matrices.

For coastal populations, there was intense harvesting of fish and shellfish, a development that is said to have ushered in superior brain power by virtue of addition of Omega 3 fatty acids.

It's a testament to primitive man's predilection for flesh that, within a few hundred thousand years of the advent of fire, tool-making and weaponry, the majority of the world's megafauna—giant animals like 12-foot-tall ground sloths, huge flightless birds, king-sized kangaroos, mammoths and mastodons—were rendered extinct.

All this transpired over a period of over a million years, during which complex genetic adaptations embedded meat consumption into our physiology. Our teeth, our digestive tracts, our requirements for B vitamins, iron, amino acids and other nutrients—different from that of monkeys and gorillas—reflect this hardwired legacy.

But, by today's standards, prehistoric humans violated strict Paleo canons: Surprisingly, they ate grains and avidly sought our sugar. Prehistoric women gathered seeds from wild grasses—predecessors of modern wheat, barley and corn—and laboriously pounded them into flatbreads which were sometimes seasoned with salt, herbs, and meat fat to make a sort of "hardtack" or pemmican that could be used for hunting expeditions or stored for consumption in winter.

Wild honey was a much-sought delicacy, even worth the risk of exposure to a few bee stings. And, where available, maple syrup and birch sap were used to sweeten boiled porridges and fire-baked biscuits.

To concede a point to carb-lovers, Paleo diets were not "keto" by any means, except perhaps in Arctic regions. New evidence points to high rates of tooth decay in ancient hunter-gatherers, challenging the long-held view that dental disease was linked to the advent of farming. The culprit: dietary starch from wild-harvested grasses, acorn flour, and tubers. Adding to the problem were abrasive particles from grindstones that contributed to rapid tooth enamel erosion.

There's even evidence of prehistoric dentistry. The discovery of manmade grooves and signs of other manipulations with primitive tools on the teeth of a Neanderthal of 130,000 years ago suggests that they, too, suffered from dental problems. Was there anesthesia? Resourceful ancient shamans may have used their knowledge of local hallucinogenic or sedating plants to put their patients "under" during delicate

operations.

Whenever we attempt to envision the “ideal” human diet, it’s important to stick to the facts revealed by emerging anthropological evidence; Don’t allow modern prejudices to distort our perspective. We still have lots to learn, and I’ll continue to provide *Intelligent Medicine* fans with fascinating dispatches from the frontlines of scientific research.