

CHAPTER FIVE

THE INTELLIGENCE OF HUMAN
PHYSIOLOGY



“My refusing to eat flesh occasioned an inconveniency, and I was frequently chided for my singularity, but, with this lighter repast, I made the greater progress, from greater clearness of head and quicker comprehension.”

—BENJAMIN FRANKLIN

“Human beings are not natural carnivores. When we kill animals to eat them, they end up killing us because their flesh, which contains cholesterol and saturated fat, was never intended for human beings, who are natural herbivores.”

—WILLIAM C. ROBERTS, M.D.,

Editor-in-Chief, *The American Journal of Cardiology*

“The pain and suffering inflicted on children by the American diet is so brutal that if it were administered with a stick, parents would be put in jail.”

—JOHN MCDUGALL, M.D.¹

The Gift

A basic reason that billions of animals suffer confinement and slaughter is our cultural belief that we need to eat animal-derived foods to be healthy, yet one of the most common motivations many of us have to

reduce or eliminate animal food consumption is improving our health! Illuminating this paradox requires us to investigate our human physiology and the animal foods we eat, and to reconnect with the perennial understanding that cultivating kindness and awareness improves physical and mental health, while harmfulness and unconsciousness lead ultimately to physical and mental disease. We can realize that we are meant to live in harmony with the other animals of this earth because we've been given bodies that actually function better *without* killing and stealing from them. What a liberating gift! No animal need ever fear us, because there is no nutrient that we need that we cannot get from non-animal sources. The evidence of this is abundant, and we'll look at some of it in this chapter in order to question the delusion that we *need* to eat animal foods to be strong, healthy, and real. Both medical studies and the obvious examples of healthy vegan people we see around us tell us that eating animal products is unnecessary, and in many ways is actually detrimental to our health.

Some of us may protest, "Wait a minute! How can eating animal products be unhealthy? It seems so natural!" Let's take a closer look at the human body. A good way to begin is by observing with fresh eyes how our bodies compare to some of the other animals with whom we share this planet. How soft, hairless, and delicate we humans are! And how physically weak! A human, for example, has only one sixth the strength of a typical chimpanzee.² We dominate animals not through physical strength, but by using implements and treachery.

We can notice our organ of eating, our human mouth. We see how small it is, how small our teeth are, and how we lack long, sharp canines to tear tough flesh as well as the strong, heavy jawbone and jaw muscles of carnivores and omnivores. We notice also how soft human teeth are, compared to the much harder teeth of carnivorous animals that are able to crush bones to gain access to bone marrow.³ Our teeth and jaw are obviously not designed for ripping flesh and gnawing bones; like frugivores and herbivores we have incisors in the front with molars along the sides for biting off and grinding plant foods.

It is interesting to imagine trying to kill and eat another mammal without using any implements, just our delicate mouth and fine, claw-

less hands. Could we do it? Could our parents, children, or friends do it? Could *any* human being do it? Could anyone, or would anyone chase down, say, a deer, cow, pig, sheep, goat, or rabbit in the wild and then, somehow catching her (highly unlikely) fall on her neck with our small, flat human mouth, tear through the fur and skin into the living flesh with our small human teeth, and fill our mouth with the fresh, hot blood of the unfortunate creature? This scenario shows the complete absurdity of what we humans are doing when we eat animal flesh. We have no claws or teeth to rip and rend raw flesh, to bite through fur, feathers, scales, or bones, nor do we have an appetite for fresh blood in our mouths.

We may notice that our jaw is especially hinged to provide side-to-side movement. This is a jaw construction shared by herbivorous mammals for grinding various types of plant material; omnivorous and carnivorous mammals have jaws that are rigidly hinged and just snap up and down. We notice further that the purpose of the dominant enzyme in our saliva, ptyalin, is to break down the complex carbohydrates in plant foods into glucose for energy. These carbohydrates are the fuel our bodies were designed to use; animal flesh contains *none*!

Unlike carnivores, we don't have strong stomach acids to quickly dissolve flesh, or short, smooth-walled intestines to pass decaying flesh from our bodies quickly. Instead, we have the weaker stomach acids and the much longer and more highly convoluted intestines of herbivores and frugivores for slowly extracting nutrients from plant foods as they pass through and are broken down.⁴ Our long and convoluted small intestine is decidedly herbivorous, with thousands of little pockets and countless tiny fingers, or villi, that give it an enormous overall surface area—larger than a tennis court!—for our food nourishment to be passed into our blood.⁵ Our digestive system requires high-fiber foods to keep these intestinal walls clean and functioning properly. Animal foods are not only devoid of fiber but also tend to be more clogging than plant foods as they decompose, leading to constipation, hemorrhoids, colitis, diverticulitis, colon cancer, and other ailments. We have the circulatory systems of herbivores as well, which have difficulty tolerating saturated fat and cholesterol. If a cat, for example, eats a large quantity of fat and cholesterol in the form of animal flesh or eggs, she gets no build-up and

blockage in her arteries, but if a rabbit, gorilla, human, or other frugivore or herbivore does this, the arteries become severely coated. If the practice continues, the arteries become clogged and unhealthy, leading to arteriosclerosis, high blood pressure, heart disease, and, in the case of humans, guaranteed demand for drugs and surgeries.

By ignoring the obvious fact that we humans are not designed to eat the large quantities of animal foods typical of our culture, the pharmaceutical-medical establishment actually contributes to the supply of sick people and guarantees what John McDougall, M.D., refers to as its “job security.”⁶ This is not to imply any sort of conspiracy or that the average doctor is not motivated by altruistic impulses. Yet the medical establishment, like any other industry functioning within our culture’s economic framework, simply follows the path of least resistance and most reliable financial return. To those in the upper echelons of the medical industry pyramid, who help determine political strategies and media/education policies, maintaining the status quo must seem like a basically good idea, so they de-emphasize prevention in favor of drug and surgical treatments and encourage the continued acceptance of an omnivorous diet for humans.

Classifying the human physiology has always been problematic in our culture and continues to be controversial today. While it’s obvious we’re not basically carnivorous, it’s also obvious that we’re not grazing ruminant or ungulate herbivores like sheep, deer, horses, and cows, who can browse on grass and leaves because of having multiple digestive pouches. We may best be classified as frugivorous herbivores, designed primarily for fruits, seeds, vegetables, nuts, and succulent roots and leaves. Most physiologists, though, still claim humans to be omnivorous by nature. Yet even horses can be taught to eat venison, and cows, sheep, and goats are taught to eat and relish the flesh of fish, chickens and pigs in modern confinement feeding operations—how much of our daily food choices are the result of being taught what to eat?

Three points, at least, seem undeniable: that we have choice, that animals suffer because of our choice to eat them, and that the current high levels of animal food consumption are unprecedented and have deleterious effects on our health. It’s well established by fossil remains

that early hominids lived primarily on a plant-based diet, and that contemporary foraging cultures do so as well. Indeed, renowned anthropologist Ashley Montagu has stated that these cultures should be called gathering-hunting rather than hunting-gathering.⁷

Like all animals, we are essentially spiritual beings, manifestations of a universal, loving intelligence that has given us bodies designed to thrive on the abundant foods that we can peacefully nourish and gather in orchards, fields, and gardens. Our bodies reflect our consciousness, which yearns to unfold higher dimensions of creativity, compassion, joy, and awareness, and longs to serve the larger wholes—our culture, our earth, and the benevolent source of all life—by blessing and helping others and by sharing, caring, and celebrating. We have, appropriately, a physiology of peace.

The wholesale killing and abuse of other animals for food runs counter to our essential sense of compassion, so we disguise the disturbing truth of our meals through self-deceptive rationalizations and elaborate methods of cooking, grinding, mixing, coating, seasoning, and covering. At a deep level we know we've been given the precious gift of bodies that require no living being to suffer, fear, or die for their feeding—but we throw this gift back in the face of the benevolent universe with the violence required by our food choices.

The Constituents of Animal Foods

Eating the large quantities of animal foods typical of our culture's meals leads to many problems. As mentioned above, animal flesh is completely devoid of the fiber that we require in our digestive systems and of the carbohydrates that our cells are designed to burn for energy. The saturated fat and cholesterol endemic in flesh, dairy products, and eggs are basically toxic to human beings, contributing to vascular disease. An especially damaging feature of animal fat is that it contains trans fats, which are well recognized as unstable substances that increase the risk of cancer and heart disease. In fact, the National Academy of Science has concluded that "the only safe intake of trans fat is zero."⁸

The highly touted animal protein that we are all cowed into believing we must ingest in order to be healthy may have toxic properties also,