Me, A Vegetarian?

by
Heather
Bowen

Growing up in the United States during the 1960s, my image of a vegetarian was that of a stereotypical hippie-type sitting under a tree, munching on an organically grown alfalfa sprout and soybean sandwich. That was not too appetizing a thought for a child who enjoyed New England summertime barbecues and clam bakes. Like most everyone I knew, we ate meat on a regular basis; after all, it not only tasted good, everyone said it was important for building strong and healthy bones.

My first step toward becoming a vegetarian was an unconscious one. As a teenager, I attended a boarding school where the institutional food easily brought to mind the jokes soldiers make about army food. The generally overcooked meat that usually made its appearance swimming in a large pool of grease was the butt of most of the kidding. Comments about the "mystery meat" and "dog food" were common among the students. Several of my friends and I gradually stopped eating meat.

When I went home for the summer after my first year away from home, it seemed almost natural to continue my vegetarian diet. When I reached my late teens, I became a Seventh-day Adventist, and I made a more formal decision to continue being a vegetarian. Although I had accepted the church's health message, it was not until I began my animal-science studies in college that I learned the scientific reasons that provided strong support for my choice. While it is true that my experience and education as an animal scientist is limited to the United States, I think many of these concerns are also globally relevant; thus, I would like to share with you a few of the more striking facts favoring vegetarianism.

Although naturalists study wild animal species, food animals are the "meat and potatoes" of animal scientists. While attending college and graduate school, I studied beef and dairy cattle, sheep, poultry, and swine. A cursory examination of the "big three" meat animal groups (beef, poultry, and pork) in North American food animal production shows us that animal management practices, sanitation procedures, carcass handling processes, and meat cooking methods often contribute to disease in humans. We'll look here at just a few of the issues I have faced in my studies, field trips, and laboratory experience.

Major Problems

Marbled Meat. To produce a choicer, more tender cut of beef, producers in the United States "finish" cattle at feed lots by fattening them on grain. This process increases the inter- and intramuscular fat content of the carcass. The consumer describes this meat as marbled. From the biblical standpoint, the finishing process also makes the meat virtually inedible, because Leviticus 3:17 clearly condemns the eating of the fat of the animal: "'This is a lasting ordinance for the generations to come, wherever you live: You must not eat any fat or any blood'" (NIV). In relation to the latter part of this text, Christians should recognize that the amount of blood left in the standard carcass is higher than in the carcass of an animal killed in a kosher manner, where specific attempts are made to remove as much blood from the meat as possible.

Aged Beef. The producer's quest for a more tender steak does not stop with attempts to increase its fat content. Beef that has been "aged" commands a higher price, partly due to the cost of special handling. The carcass is wrapped in a cloth shroud that helps shape the carcass and prevents drying during its longer stay in the locker. In the aging process, proteolytic enzymes break down some of the protein bonds, thereby producing a more tender cut of beef. Frankly, in other circumstances this process is called rotting! Of course, it is much more marketable to say that the product is "aged."

Swine Dining. The Levitical prohibition of eating pigs exists for a good reason

(see Leviticus 11:7, 8). Pigs are naturally coprophagous; that is, they eat their own feces. In fact, many progressive, competitive swine farms today use a feed source called Screened Swine Solids (i.e, pig manure). Water washes the pig feces into a gutter where the feces are screened out and then fed back to the pigs. The potential for spreading disease is enormous. While on a field trip visiting a large pig farm in central California, our group was not allowed on the premises without putting on protective boots. The farmers' concern was not necessarily for us humans; if a disease were inadvertently tracked onto the farm, they feared it would quickly spread throughout the pig herd of 40,000.

Poultry Problems. Poultry production has at least one thing in common with swine production. Both have a high population density in a confined space with the same potential for spread of disease.

Processed Meats. Apart from the meat origin, prepared meat products such as cold cuts, sausages, and frankfurters come with their own problems. In the preparation of these products, meat that is high in fat, such as pork or turkey skins, is broken up by high speed blades. It is then surrounded with protein from the nearly liquified leaner meats, forming a doughy substance which is then cooked or smoked. The finished product is approximately 30 percent fat. Just imagine, while eating a six-inch hot dog, that two are pure fat!

To preserve the meat and prevent bacterial contamination, these products are prepared with a "cure." The nitrites used in this cure, however, form nitrosamines in the meat substances, which have been shown to be carcinogenic. Consumers often cook this meat at high temperatures as they barbecue or flame broil it. In this process, the fat actually burns and collects in the meat, sometimes forming other dangerous compounds such as benzopyrenes and other potent carcinogens.[1]

Diseases. Another concern about the consumption of animal products is the potential exposure to zoonoses. The World Health Organization defines zoonoses as "those diseases and infections [the agents of] which are naturally transmitted between [other] vertebrate animals and man."[2] Rabies is an example of a zoonoses with which you may already be familiar. Let us now look more closely at some of the diseases transmitted by the consumption of the "big three" meats.

- Lack of cleanliness during the slaughter of cattle has recently become apparent with the outbreak of an *E.coli* bacterial contamination that resulted in a number of deaths in the Northwestern United States.
- Trichinosis is caused by trichinellae parasites in infested pork. These tiny larvae enter their hosts through the intestinal tract, migrating to the most active muscles of the body such as the calf muscle, diaphragm, and tongue, where painful cysts appear.
- Salmonellosis is the result of eating poultry caracasses that carry this bacterial infection. The results are nausea, vomiting, diarrhea, and in some rare cases, death. Recent outbreaks of this disease in the United States have prompted some concerned producers to propose sterilization of the carcasses by gamma radiation.

There are many more zoonoses, such as cryptosporidiosis, tuberculosis, and listeriosis that we won't be able to discuss fully here.

Animal and Human Diets

When studying an animal species, one of the primary areas of interest is its diet. Just like machines, animals require the proper fuel source to function properly. Millions, perhaps billions, of dollars and countless hours have been spent on determining the proper diet of many of our food-source animals. Careful attention is paid to every nutrient. The reason for all this research is quite simple: to make money.

In animals, one way of determining a proper diet is the comparison of body characteristics and the type of diet naturally chosen in the wild. For instance, carnivores usually have long incisor teeth suitable for tearing flesh, an intestinal tract roughly three to four times its body length that is comparatively smooth on the inside. It is thus more suitable for a diet lower in fiber. Carnivores also lack salivary alpha-amylase needed to break down certain carbohydrates. Herbivores, on the other hand, tend to have shorter teeth more suitable for grinding. Their intestinal tract is approximately five to six times their body length and usally very rough inside, making it more suitable for a diet high in fiber. Herbivores also have salivary alpha-amylase. Following these simple observations, it should be fairly obvious that a horse is an herbivore and a cat is a carnivore. Human teeth are small and more suitable for grinding; we have salivary alpha-amylase; our intestinal tract is five or six times our body length; and its interior is very rough and well-suited for handling a diet high in fiber. Therefore, these comparisons indicate that the proper diet for humans is a vegetarian one.

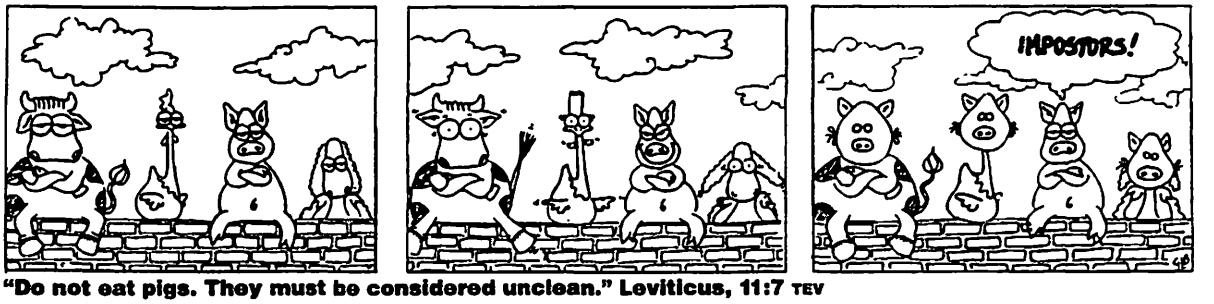
Additional Concerns

While the above observations point us in a vegetarian direction, further study provides more compelling evidence.

Cholesterol. One area that has received much recent attention is cholesterol. This substance is a fatty alcohol that occurs naturally in almost all animals. Cholesterol is a necessary building block for certain other essential body substances such as hormones and cell membranes. While some cholesterol is necessary, there can be "too much of a good thing." Approximately half of all deaths in the United States are caused by atherosclerosis, the disease in which cholesterol, accumulating in the wall of arteries, forms bulky plaques that inhibit the flow of blood until a clot eventually forms, obstructing an artery and causing a heart attack or stroke. The cholesterol of atherosclerotic plaques is derived from particles called low-density lipoprotein (LDL) that circulate in the bloodstream. The more LDL in the blood, the more rapidly atherosclerosis develops.[3]

But if cholesterol or LDL is natural, why does the body allow it to get so high in some individuals? To explain this requires an understanding of how the body handles LDL cholesterol. On the surface of each of our cells are LDL receptor sites. Ther function is to remove LDL from the blood stream and bring it into the cell for dismantling and re-manufacturing into cellular products. Normally there are a large number of such sites per cell. It has been discovered, however, that meat and dairy products in the diet can suppress the

Survival



"Do not eat pigs. They must be considered unclean." Leviticus, 11:7 TEV

number of sites by as high as a factor of ten, triggering a complex chain of events that results in the rise of LDL in the bloodstream and the onset of atherosclerosis.

Incredibly, the response from the scientific community has been very slow and sometimes illogical. Some scientists who know the truth about meat feel that we should not promote a vegetarian diet simply because of the social and financial impact on society. Besides, they argue, only fifty percent of the public will die from atherosclerosis; the fortunate others are genetically resistant to LDL receptor supression. Instead of recommending a simple change in diet, some scientists base the hope of good health on the development of a preventive drug: "If it is shown that these drugs do prevent diet-induced suppression of receptors and if the drugs can be shown to be safe for long-term use, it may one day be possible for many people to have their steak and live to enjoy it too."[4]

There is not enough space in this article to address other areas that should concern those who eat animal meat. The list would include the use of hormones and antibiotics in raising food animals, and the negative effects they have on humans who eat them, as well as the dangers of ingesting chemicals and other pollutants in fish and shellfish.

A Better Way

So why be a vegetarian? In addition to the above reasons, there are nutritional advantages for choosing a vegetarian diet. Ellen White comments on the original diet established by God:

Grains, fruits, nuts, and vegetables constitute the diet chosen for us by our Creator. These foods, prepared in as simple and natural a manner as possible, are the most healthful and nourishing.... God gave our first parents the food He designed that the race should eat. It was contrary to His plan to have the life of any creature taken. There was to be no death in Eden.[5]

There is abundant evidence of the positive effects of returning to a more natural, simple diet. Indeed, Seventh-day Adventists adhering to a vegetarian diet have been found to enjoy better health than those who consume meat regularly.[6]

I believe that changing to a vegetarian life-style, instead of limiting one's food choices, actually opens wide the door for new culinary adventures. When we think of all the fruits, vegetables, grains, legumes, and nuts at our disposal, it is easy to envision a myriad of dishes that can be prepared. I have found that being a vegetarian is also a great way to meet people. I've enjoyed learning how to cook vegetarian dishes from other countries and sharing them with my friends.

Future Perspective

Vegetarians know that the grain that food animals are fed could be better used to nourish starving human beings. They can show their kindness to animals by not raising them for food or eating their meat. Thus, Christians who are vegetarians can reveal in practical ways their commitment as God's stewards of nature.

Perhaps the most compelling reasons for Christians to be vegetarians are based on our faith convictions. We live in the hope of Christ's soon return and trust in His promise of a totally renewed earth. We know that nothing in there will hurt or destroy. The lion will lie down with the lamb and all creatures will live in harmony. As we prepare for eternal life with God, we make Christ the center of our lives and choose a life-style that reflects that commitment: "So whether you eat or drink or whatever you do, do it all for the glory of God" (1 Corinthians 10:31, NIV). Indeed, a healthy vegetarian life-style helps us to better understand and obey the Spirit's leading. By excluding animals from our diet, we begin experiencing the benefits of eternal life now. ❑

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Notes and References

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