Appendix A

The Myth of Vegetarianism

(From *The Great Cholesterol Con* by Anthony Colpo. Lulu Press, ISBN: 1430309334. Reprinted with permission from the author).

Some readers may object to my lavish praise for the healthful qualities of meat by pointing to studies that have shown vegetarians to enjoy lower rates of heart disease. While some studies have indeed found lower rates of CHD among vegetarians, there is not a shred of evidence to suggest that this phenomenon has anything to do with the avoidance of meat.

The studies most frequently cited in support of vegetarian diets have involved Seventh-day Adventists living in California. Scientific interest in this population was inspired by data from the early seventies showing that, as a group, Seventh-day Adventists enjoyed a significantly lower death rate from cancer than non-Adventists. Members of this religion are exhorted to abstain from alcohol and tobacco, and most also shun the use of pork products. In addition, approximately one-half of Seventh-Day Adventists follow a lacto-ovo vegetarian diet, using vegetables, fruits, whole grains and nuts abundantly while avoiding the use of tea and coffee.

A recent study of over 34,000 Californian Seventh-Day Adventists, published in 1999, found that vegetarians had lower risks of hypertension, diabetes, arthritis, colon cancer, prostate cancer, fatal CHD in males, and death from all causes. Again, vegetarians displayed a number of healthful dietary habits unrelated to meat intake that were not shared by their omnivorous brethren. Vegetarians consumed more tomatoes, nuts, and fruit, but less coffee and donuts than non-vegetarians. Non-vegetarian Seventh-Day Adventists also consumed alcoholic beverages twenty times more frequently than their vegetarian counterparts(1). As an earlier study of Adventists published in 1975, these observations clearly showed that those who shunned meat also adopted other dietary measures that protected their health(2).

Reinforcing this notion was the fact that, along with many of the aforementioned disorders, obesity increased as meat consumption increased. Obesity is well known to confer an increased risk of heart disease and cancer. Meat consumption, however, has nothing whatsoever to do with the accumulation of excess body fat; several clinical trials have in fact shown that replacing dietary carbohydrates with high protein foods like beef and poultry often dramatically boosts weight loss (3,4). A year-long Finnish study that

compared weight loss on lactovegetarian and omnivorous diets also failed to support the contention that vegetarian diets possess superior fat-burning capabilities. In fact, the omnivorous diet produced slightly greater weight loss than the vegetarian diet (10.4kg versus 9.2kg, respectively)(5). The greater meat consumption of obese Seventh-Day Adventists was simply one of numerous characteristics present with greater frequency among those living less healthy lifestyles. Why single out meat when so many other possible culprits were present?

What do other studies show?

What about other large-scale studies, involving populations other than Seventh-Day Adventists, that recruited vegetarians and non-vegetarians and compared their subsequent mortality rates?

Three such studies have been conducted, all from the UK: the Health Food Shoppers Study, the Oxford Vegetarian Study and the EPIC-Oxford Study. The Health Food Shoppers Study, involving almost 10,000 health food store patrons in England, found a similar all-cause death rate among vegetarians and omnivores after seventeen years (6).

The Oxford Vegetarian Study compared over 6,800 vegetarians and non-vegetarians and found a twenty percent reduction in overall mortality among the former after twelve years(7). More recent follow-up by the Oxford authors, however, found that the reduction in overall mortality had disappeared. In fact, the only significant difference remaining for any cause of death was seen for mental and neurological diseases, which were 2.5 times higher among vegetarians(8).

The EPIC-Oxford Study, involving 56,000 subjects, also found no difference in overall mortality between vegetarians and omnivores after 5.9 years. Vegetarians displayed slightly higher mortality from all cancers and stroke(9).

Contrary to popular claims, the above studies show that vegetarianism offered no protection from stroke, breast cancer, colorectal cancer, lung cancer, stomach cancer, or prostate cancer. Vegetarians did enjoy a non-significant reduction in coronary heart disease mortality, but avoidance of meat is unlikely to explain the difference. In the Health Food Shoppers and Oxford studies, the proportion of smokers was lower among vegetarians than non-vegetarians. In the Oxford study, vegetarians weighed less, drank less alcohol and exercised more. Information about exercise habits was not available for EPIC-Oxford, but vegetarians in this study were less likely to be heavy smokers or overweight. Similar to the situation observed with Seventh-Day Adventists, these results are

confounded by the fact that vegetarians tend to be a health-conscious group who smoke less cigarettes, drink less alcohol and engage in regular physical activity.

The importance of non-dietary factors in the reduction of heart disease among vegetarians is further emphasized by the results of a large study by researchers at the German Cancer Research Center. In 1978 they began following 1,904 vegetarians, 225 of whom died over the next eleven years. Because 470 deaths would have been expected in a sample of typical Germans, this study has frequently been cited in support of vegetarianism. This study, however, could not even begin to be used by any rational commentator as evidence that meat avoidance is beneficial. For starters, when the researchers compared death rates among strict vegetarians who never ate meat and 'moderate' vegetarians who occasionally ate meat or fish, they found similar cancer, cardiovascular disease and all-cause mortality rates among the two groups.

Furthermore, only four percent of males and three percent of females in the study were smokers; the corresponding figures for the rest of Germany were forty-one and twenty-six percent, respectively. The vegetarians in the study were generally better educated and were more likely to be employed in professional jobs than the general population. They were also far less likely to be overweight(10). Little surprise, then, that this group experienced lower mortality than the general population!

When the authors examined the effect of various confounding factors, they found that the strongest predictor by far of reduced all-cause and cardiovascular mortality was a higher level of physical activity(11).

The German study merely adds to the considerable volume of evidence showing that being physically active, avoiding overweight and eschewing cigarettes all increase longevity. The claim that shunning a nutrient-packed food like meat contributes to an increase in life span, through some bizarre twist of biochemistry, is a shameless exercise in junk science.

It should also be pointed out that studies examining meat-eaters who follow healthier-than-usual lifestyles have revealed mortality rates similar to or superior to those seen in the aforementioned vegetarian studies. An eight-year follow-up of over 5,200 Californian Mormon high priests found fifty-three percent lower cancer mortality, a forty-eight percent reduction in cardiovascular deaths, and fifty-three percent lower all-cause mortality than the rest of the white California population. For middle-aged high priests adhering to the three important health practices of never smoking cigarettes, engaging in regular physical activity and getting proper sleep, the reductions were even more

impressive; cancer, cardiovascular and total deaths were reduced by sixty-six, eighty-six and seventy-eight percent, respectively!(12)

In another Californian study, this time involving residents of Alameda County, ten years of follow-up revealed that the strongest predictors of survival were: 1) never smoking cigarettes; 2) regular physical activity; 3) moderate or no use of alcohol; 4) attaining seven to eight hours of sleep per day, and; 5) maintaining proper weight(13).

Despite the vociferous claims of vegetarian activists, who have shown themselves to be in no way averse to bending the truth when it suits their agenda, the fact remains that vegetarianism has *not* been demonstrated to offer any reduction in cancer or all-cause mortality--even when using the garbage-laden modern Western diet as the reference standard! There also exists no reliable evidence to implicate meat in the causation of heart disease. To the contrary, meat is the richest dietary source of several nutrients that are essential for optimal cardiovascular function, including carnitine, taurine, proline, carnosine, the B group of vitamins and, in the case of organ meats, CoQ10 (brain, kidney, liver) and omega-3 fats (brain).

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