Bacon, But Not Steak, Indicted in Heart Disease & Diabetes

A recent systematic review and meta-analysis of 20 prior studies totaling about 1.2 million people has good news and bad news for meat lovers. The good news is that eating unprocessed red meat such as beef, pork or lamb was not associated with an increased risk of heart disease or diabetes. The bad news is that the same can’t be said of processed meats like bacon, sausage, salami, luncheon meat or hot dogs: Eating just 50 grams (1.8 ounces, about one hot dog or two slices of salami) of processed meat daily was associated with a 42% greater risk of heart disease and 19% increased risk of diabetes.

Renata Micha, PhD, RD, of the Harvard School of Public Health, and colleagues combed the scientific literature in the largest research review to date of the health effects of eating meat. Prior studies did not separately evaluate unprocessed red vs. processed meats, which might have different health effects. Out of 1,598 studies they looked at, 17 prospective cohort studies and 3 case-control studies met the criteria for inclusion. Together, the studies included 23,889 cases of coronary heart disease and 10,797 of diabetes.

“Processed” meats were defined as any meat preserved by smoking, curing, salting or chemical preservatives. Processed meats were defined as any meat preserved by smoking, curing, salting or chemical preservatives.

“Best Evidence Yet” for Heart-Health Benefits of Nuts

A healthy handful of nuts may help protect you against heart disease by improving cholesterol levels, according to a new study. Lead researcher Joan Sabaté, MD, DrPH, of Loma Linda University said the findings, which pooled results from 25 controlled trials in seven countries, provided “the best evidence yet that eating nuts reduces LDL cholesterol” and improves levels of fats in the blood.

In 2003, the US Food and Drug Administration (FDA) approved a qualified health claim that evidence suggests eating 1.5 ounces of nuts daily as part of a diet low in saturated fat and cholesterol reduces heart-disease risk. Although the term “nuts” covers a wide variety of seeds, fruits and even legumes, the heart-health benefits don’t seem restricted by botany: The FDA allows the health claim on almonds, hazelnuts, peanuts, pecans, some pine nuts, pistachios and walnuts; a further 2004 claim was okayed specifically for walnuts. Most of the studies in the new pooled analysis focused on almonds or walnuts.

“Dietary interventions to lower blood cholesterol concentrations and to modify blood lipoprotein levels are the cornerstone of prevention and treatment plans for coronary heart disease,” Dr. Sabaté and colleagues noted in Archives of Internal Medicine. “Recently, consumption of nuts has been the focus of intense research because of their potential to reduce coronary heart disease risk and to lower blood lipid [fat and cholesterol] levels based on their unique nutritional attributes.” Nuts are rich in plant proteins, unsaturated fatty acids, dietary fiber, minerals, vitamins and other compounds, such as antioxidants and phytosterols.

The combined studies totaled 583 men and women with high or normal cholesterol levels, none of them taking cholesterol-lowering medications such as statins. All the trials compared cholesterol levels between groups consuming nuts and control groups, over periods ranging from three to eight weeks. Daily nut consumption in the test groups averaged 67 grams by weight—nearly 2.4 ounces, the equivalent of about two-thirds of a cup of walnut halves.

Compared to the control groups, participants adding nuts to their diets saw an average 5.1% decrease in total cholesterol, 7.4% decrease in “bad” LDL cholesterol and 8.3% improvement in ratio of LDL to “good” HDL. Those with high triglyceride levels saw a 10.2% decline. Different types of nuts had similar effects, but the benefits were greatest among people with higher initial LDL levels and lower body mass.

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index and people consuming more total and saturated fat.

The study was partly funded by a nut industry trade group, but it did not play any role in the research.

The results support the inclusion of nuts in therapeutic dietary interventions for improving blood cholesterol levels, Dr. Sabaté and colleagues concluded: “Nuts are a whole food that have been consumed by humans throughout history. Increasing the consumption of nuts as part of an otherwise prudent diet can be expected to favorably affect blood lipid levels (at least in the short term) and have the potential to lower coronary heart disease risk.”

Because nuts are high in calories, the researchers recommended a maximum consumption of three ounces a day.

TO LEARN MORE: Archives of Internal Medicine, May 10, 2010; abstract at <archinte.ama-assn.org/cgi/content/abstract/170/9/821>.

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meats contain similar amounts of saturated fat and dietary cholesterol as unprocessed meats, but have about four times more sodium and 50% more nitrate preservatives.

Micha and colleagues commented, “This suggests that differences in salt and preservatives, rather than fats, might explain the higher risk of heart disease and diabetes seen with processed meats, but not with unprocessed red meats.”

Asked to comment on the findings, American Heart Association spokesman Robert Eckel, MD, of the University of Colorado-Denver said, “The major difference in heavily processed and less processed meat is sodium and chemical preservatives. We have tended to blame the saturated fat in red meat for heart disease, but the study suggests it may not be that simple.”

To be on the safe side, the researchers advised eating no more than one serving of processed meat per week. And the findings shouldn't be interpreted as a free pass to eat steak or pork chops every night. Micha said, “People should give more emphasis in increasing intake in their diet of foods that have been shown to be protective, such as fruits, vegetables, whole grains, fish and nuts.”

TO LEARN MORE: Circulation, online before print; abstract at <circ.ahajournals.org/cgi/content/abstract/CIRCULATIONAHA.109.324977v1>.

Your Heart Loves Pistachios

Adding to a growing body of evidence of nuts’ potential heart-health benefits, Penn State researchers report that pistachios not only lower “bad” LDL cholesterol but also pack a potent antioxidant punch. Pistachios contain higher amounts of antioxidants, including beta-carotene, gamma-tocopherol and lutein, than most other nuts, which may help pistachios combat inflammation in the body.

Researchers tested 28 volunteers, ages 35-61, with mildly high LDL levels on a low-fat control diet and diets with one and two daily servings of pistachios (averaging 1.5 ounces per serving, or 10%-20% of total daily calories). After four weeks on each test diet and two weeks on a baseline Western diet, participants had lower LDL levels when eating pistachios than when on the low-fat diet; LDL levels on two daily servings of nuts were also lower compared to the baseline measurements. Blood levels of lutein, beta-carotene, alpha-carotene and gamma-tocopherol were also boosted by eating pistachios. Researchers concluded, “Beneficial effects on multiple cardiovascular-disease risk factors would be expected to reduce cardiovascular-disease risk beyond that achieved by decreases in LDL-cholesterol alone through lowering cholesterol and the benefits of the antioxidants in the nuts.”

TO LEARN MORE: Journal of Nutrition, June 2010; abstract at <jn.nutrition.org/cgi/content/abstract/140/6/1093?etoc>.

What About Meat and Cancer?

This new review of research on red and processed meats didn’t look at cancer risk. Previous studies have shown that higher consumption of total meat and processed meat is associated with a greater risk of some cancers, such as colorectal cancer. But, much like prior studies of meat and heart disease, these investigations typically considered processed and unprocessed meats together (total meat), and did not separately evaluate unprocessed red meats. For now, the American Cancer Society (<www.cancer.org>) recommends limiting your intake of both processed and unprocessed red meats.

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