

Daily Red Meat Raises Chances Of Dying Early

Study Is First Large Analysis Of Link With Overall Health



The new study says, "If people want to be healthy and live longer, consume less red and processed meat," global nutrition professor Barry Popkin said. (By James M. Thresher For The Washington Post)

By Rob Stein
Washington Post Staff Writer
Tuesday, March 24, 2009

Eating red meat increases the chances of dying prematurely, according to the first large study to examine whether regularly eating beef or pork increases mortality.

The study of more than 500,000 middle-aged and elderly Americans found that those who consumed about four ounces of red meat a day (the equivalent of about a small hamburger) were more than 30 percent more likely to die during the 10 years they were followed, mostly from heart disease and cancer. Sausage, cold cuts and other processed meats also increased the risk.

Previous research had found a link between red meat and an increased risk of heart disease and cancer, particularly colorectal cancer, but the new study is the first large examination of the relationship between eating meat and overall risk of death, and is by far the most detailed.

"The bottom line is we found an association between red meat and processed meat and an increased risk of mortality," said Rashmi Sinha of the National Cancer Institute, who led the study published yesterday in the Archives of Internal Medicine.

In contrast, routine consumption of fish, chicken, turkey and other poultry decreased the risk of death by a small amount.

"The uniqueness of this study is its size and length of follow-up," said Barry M. Popkin, a professor of global nutrition at the University of North Carolina, who wrote an editorial accompanying the study. "This is a slam-dunk to say that, 'Yes, indeed, if people want to be healthy and live longer, consume less red and processed meat.' "

There are many explanations for how red meat might be unhealthy: Cooking red meat generates cancer-causing compounds; red meat is also high in saturated fat, which has been associated with breast and colorectal cancer; and meat is high in iron, also believed to promote cancer. People who eat red meat are more likely to have high blood pressure and cholesterol, which increases the risk of heart disease. Processed meats contain substances known as nitrosamines, which have been linked to cancer.

Although pork is often promoted as "white meat," it is believed to increase the risk of cancer because of its iron content, Sinha said.

Advertisement

Regardless of the mechanism, the research provides new evidence that people should follow long-standing recommendations to minimize consumption of red meat, several experts said.

"The take-home message is pretty clear," said Walter Willett, a nutrition expert at the Harvard School of Public Health. "It would be better to shift from red meat to white meat such as chicken and fish, which if anything is associated with lower mortality."

The American Meat Institute, a trade group, dismissed the findings, however, saying they were based on unreliable self-reporting by the study participants.

"Meat products are part of a healthy, balanced diet, and studies show they actually provide a sense of satisfaction and fullness that can help with weight control. Proper body weight contributes to good health overall," James H. Hodges, the group's executive vice president, said in a written statement.

For the study, researchers analyzed data from 545,653 predominantly white volunteers, ages 50 to 71, participating in the National Institutes of Health-AARP Diet and Health Study. In 1995,

the subjects filled out detailed questionnaires about their diets, including meat consumption. Over the next 10 years, 47,976 men and 23,276 women died.

After accounting for other variables that might confound the findings, such as smoking and physical activity, the researchers found that those who ate the most red meat -- about a quarter-pound a day -- were more likely to die of any reason, and from heart disease and cancer in particular, than those who ate the least -- the equivalent of a couple of slices of ham a day.

Among women, those who ate the most red meat were 36 percent more likely to die for any reason, 20 percent more likely to die of cancer and 50 percent more likely to die of heart disease. Men who ate the most meat were 31 percent more likely to die for any reason, 22 percent more likely to die of cancer and 27 percent more likely to die of heart disease.

In contrast, those who consumed the most white meat were about 8 percent less likely to die during the study period than those who ate the least, the researchers found. Poultry contains more unsaturated fat, which improves cholesterol levels, and fish contains omega-3 fatty acids, which are believed to help reduce the risk of heart disease.

The risk also rose among those who consumed the most processed meat, which included any kind of sausage, cold cuts or hot dogs. Women who consumed the most processed meat (about an ounce a day) were about 25 percent more likely to die overall, about 11 percent more likely to die of cancer and about 38 percent more likely to die from heart disease, compared to those who ate the least. The men who ate the most processed meat were 16 percent more likely to die for any reason, about 12 percent more likely to die of cancer and about 9 percent more likely to die of heart disease.

Experts stressed that the findings do not mean that people need to eliminate red meat from their diet, but instead should avoid eating it every day.

"You can be very healthy being a vegetarian, but you can be very healthy being a non-vegetarian if you keep your red-meat intake low," Willett said. "If you are eating meat twice a day and can cut back to once a day there's a big benefit. If you cut back to two or three times a week there's even more benefit. If you eliminate it entirely, there's a little more benefit, but the big benefit is getting away from everyday red-meat consumption."

In addition to the health benefits, a major reduction in the eating of red meat would probably have a host of other benefits to society, Popkin said: reducing water shortages and pollution, cutting energy consumption, and tamping down greenhouse gas emissions -- all of which are associated with large-scale livestock production.

"There's a big interplay between the global increase in animal food intake and the effects on climate change," he said. "If we cut by a few ounces a day our red-meat intake, we would have big impact on emissions and environmental degradation."