Red Meat Linked to Increased Diabetes Risk

Large study finds higher consumption increases risk, but experts are at odds with findings

By Steven Reinberg

HealthDay Reporter

MONDAY, June 17 (HealthDay News) -- People who eat a lot of red meat increase their risk of developing type 2 diabetes, while those who cut down on red meat cut their risk.

Those are the findings of a large new study out of Singapore involving 149,000 U.S. men and women.

The researchers found that increasing the consumption of red meat can increase the risk of developing type 2 diabetes by 48 percent.

"There is no need to have more red meat on your plate; it increases the risk of diabetes," said lead researcher An Pan, an assistant professor at the Saw Swee Hock School of Public Health at the National University of Singapore.

"It is better to reduce your red meat consumption by replacing it with other healthy food choices, like beans, legumes, soy products, nuts, fish, poultry and whole grains," he added.

The report was published in the June 17 online edition of the journal *JAMA Internal Medicine*.

For the study, Pan's team collected data on three Harvard group studies: the Health Professionals Follow-up Study, the Nurses' Health Study and the Nurses' Health Study II. All the participants answered questions about their diet every four years, resulting in more than 1.9 million person-years of follow-up.

There were more than 7,500 cases of type 2 diabetes, the researches found.

Comparing diet with the cases of diabetes, Pan's group found that people who increased their consumption of red meat by 0.5 servings per day during a four-year period were 48 percent more likely to develop type 2 diabetes, compared with people who ate less red meat.

Moreover, people who cut their red meat consumption were 14 percent less likely to develop type 2 diabetes, they found.
Outside experts, however, argued about the findings.

"Epidemiological studies made by questionnaires are not accurate, and they never prove causation, no matter how big and how good the statistics are," said Dr. Joel Zonszein, director of the Clinical Diabetes Center at Montefiore Medical Center in New York City.

The interaction of the many genetic and lifestyle factors that cause obesity and type 2 diabetes is remarkably complex and is still being studied, Zonszein added. "Doing cross-sectional analysis or epidemiological analysis produces questions but not answers," he said.

Blaming red meat for diabetes is misleading, said William Evans, head of the Muscle Metabolism Discovery Performance Unit at GlaxoSmithKline and the author of an accompanying editorial in the journal.

The amount of saturated fat that is also found in many types of meat is the most likely cause for the association of red meat and risk of diabetes, he said.

"Red meat is not the bad food that it is touted to be," Evans said. "There are many cuts of beef that are red and have as much fat as a chicken breast, and the redness in meat provides the most available form of iron from any food that we eat."

But Samantha Heller, a senior clinical nutritionist at NYU Langone Medical Center in New York City, countered that Americans are eating too much red meat.

"In 2012, Americans ate an estimated 166 pounds of meat per person," she said. "That is a titanic amount of unhealthy saturated fat and other compounds found in meat, such as iron, zinc or N-nitroso -- compounds that research suggests are linked with increased risks for diseases such as diabetes, cardiovascular disease and cancers."

"A plate loaded with meat also leaves less room for vegetables, whole grains and other healthy foods," Heller said.

Zonszein also doesn't put the blame for type 2 diabetes on red meat alone.

"The public health message should be to eat a heart healthy and balanced diet with balanced macronutrients, and low in saturated fat," he said.

He added, however, that "excessive caloric intake is not good, but I will eat a good steak and potatoes from time to time and enjoy it."

"If the cause of the associated risk is saturated and total fat content," Evans said, "the public health message should be to reduce intake from all sources, such as cheese, whole milk and meat that is rich in saturated fat, not to single out specific types of meat because of redness."

WebMD News from HealthDay

Sources
SOURCES: An Pan, Ph.D., assistant professor, Saw Swee Hock School of Public Health, National University of Singapore; Joel Zonszein, M.D., director, Clinical Diabetes Center, Montefiore Medical Center, New York City; William Evans Ph.D., vice president and head, Muscle Metabolism Discovery Performance Unit, GlaxoSmithKline, Research Triangle Park, N.C.; Samantha Heller, M.S., R.D., senior clinical nutritionist, NYU Langone Medical Center, New York City; June 17, 2013, JAMA Internal Medicine, online