Obesity fueling rise in diabetes rates, study finds

September 2 2014, by Kathleen Doheny, Healthday Reporter

Increase was greater for men, yet only about half could be explained by excess weight.

(HealthDay)—The U.S. obesity epidemic is a driving force behind the rising rates of type 2 diabetes, according to a new study.

Researchers looked at data from five national surveys spanning from 1976 through 2010 to determine how much the increase in diabetes over time could be explained by factors such as changing distribution of race, age and obesity in U.S. adults.

The investigators found that the prevalence of diabetes in men rose from about 5 percent to more than 11 percent. In women, it rose from under 6 percent to nearly 9 percent. When the researchers looked at factors that might contribute to rising diabetes rates, obesity stood out. Although for men, it only explained about half the increase, according to the

researchers.

"Overweight and obesity explained most of the increase in the prevalence of diabetes in the U.S. during this time period," said study researcher Andy Menke, an epidemiologist with Social & Scientific Systems, a private research organization.

The other factors they looked at—age, race and ethnicity—"had little influence on changes in diabetes prevalence [during the study time period]," he said.

The study is published in the Sept. 2 issue of *Annals of Internal Medicine*.

More than 29 million Americans have diabetes, according to the U.S. Centers for Disease Control and Prevention. Type 2 diabetes is by far the most common type of diabetes, according to the American Diabetes Association (ADA).

Known risk factors for type 2 diabetes include excess weight, a sedentary lifestyle and age, according to the ADA. Race is also a known risk factor, with blacks, Hispanics, Native Americans, Asian Americans and Pacific Islanders experiencing higher rates of type 2 diabetes than whites, the ADA notes.

The new study included information from U.S. National Health and Nutrition Examination Surveys, representing nearly 24,000 men and women, aged 20 to 74.

"Changes over time in the distribution of age, race and ethnicity, and obesity in the population explained all of the increase in women but only half of the increase in men," Menke said.

He can't explain from this study why men's diabetes rates are increasing more than women's are, or exactly what factors are behind that rise.

Nor is it known, he said, why weight plays a role in some people developing diabetes but not others. "It's not entirely clear why some people who have maintained a healthy weight their entire lives develop type 2 diabetes while other people who are obese never develop it," he said.

Menke and other experts believe genetics may play a stronger role for some people than others.

Both genetics and environmental factors drive diabetes risk, said Dr. Joel Zonszein, director of the Clinical Diabetes Center at Montefiore Medical Center, in New York City. "There has been [ongoing] debate about how much is genetic and how much environmental."

Still, obesity is likely the biggest factor behind the increase in type 2 diabetes, noted Zonszein. It's also important because it's a modifiable risk factor, which means it's a risk factor people can change, according to the study's authors.

Zonszein pointed out at least one limitation of the study—their use of body mass index (BMI) as a measure of obesity.

The authors, too, noted that using BMI to measure how much fat a person has (also called adiposity) is a limitation of the study, and that other measures, such as a person's waist circumference, may be more strongly linked with diabetes. However, the surveys used only measured BMI, not waist circumference.

To better predict diabetes risk, according to Zonszein, it's better to measure adiposity in other ways, including taking into account so-called

"good fat" or brown fat tissue, which isn't believed to raise diabetes risk. Some women, he said, may not have a high BMI but do have high levels of belly fat, a "bad fat" known to raise diabetes risk.

Another potential limitation of the study is that the survey data didn't allow the researchers to control for factors such as physical activity, which are known to affect diabetes risk, according to the study.

More information: To learn more about obesity and diabetes, visit the Obesity Society.