Soluble fiber strikes a blow to belly fat

June 27 2011

All fat is not created equal. Unsightly as it is, subcutaneous fat, the fat right under the skin, is not as dangerous to overall health as visceral fat, the fat deep in the belly surrounding vital organs.

According to a new study by researchers at Wake Forest Baptist Medical Center, the way to zero in and reduce visceral fat is simple: eat more soluble fiber from vegetables, fruit and beans, and engage in moderate activity.

The study found that for every 10-gram increase in soluble fiber eaten per day, visceral fat was reduced by 3.7 percent over five years. In addition, increased moderate activity resulted in a 7.4 percent decrease in the rate of visceral fat accumulation over the same time period.

"We know that a higher rate of visceral fat is associated with high blood pressure, diabetes and fatty liver disease," said Kristen Hairston, M.D., assistant professor of internal medicine at Wake Forest Baptist and lead researcher on the study. "Our study found that making a few simple changes can have a big health impact."

Ten grams of soluble fiber can be achieved by eating two small apples, one cup of green peas and one-half cup of pinto beans; moderate activity means exercising vigorously for 30 minutes, two to four times a week, Hairston added.

In the longitudinal study, published in the June 16 online issue of the journal *Obesity*, researchers examined whether lifestyle factors, such as

diet and frequency of exercise, were associated with a five-year change in abdominal fat of African Americans and Hispanic Americans, populations at a disproportionally higher risk for developing high blood pressure and diabetes and accumulating visceral fat.

At the beginning of the study, which involved 1,114 people, the participants were given a physical exam, an extensive questionnaire on lifestyle issues, and a CT scan, the only accurate way to measure how much subcutaneous and visceral fat the participants had. Five years later, the exact same process was repeated.

Researchers found that increased soluble fiber intake was associated with a decreased rate of accumulated visceral fat, but not subcutaneous fat.

"There is mounting evidence that eating more soluble fiber and increasing exercise reduces visceral or belly fat, although we still don't know how it works," Hairston said. "Although the fiber-obesity relationship has been extensively studied, the relationship between fiber and specific fat deposits has not. Our study is valuable because it provides specific information on how dietary fiber, especially soluble fiber, may affect weight accumulation through abdominal fat deposits."

Hairston's next study, expected to be in clinical trials later this summer, will examine whether increasing soluble fiber with a widely available fiber supplement will produce similar results to those obtained in this study using soluble fiber from food.

Provided by Wake Forest Baptist Medical Center

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