

Exercise shrinks abdominal fat cells

Wed Aug 16, 3:24 PM ET

NEW YORK (Reuters Health) - Exercise may be especially helpful in reducing the size of fat cells around the waistline -- more so than diet alone, a study suggests. That's important, because fat specifically in the abdomen has been linked to the risk of heart disease and diabetes.

Among a group of obese women who were placed on a regimen of calorie cutting alone or diet plus exercise, those who exercised showed a reduction in the size of fat cells around the abdomen. Women who only dieted showed no such change.

In contrast, both groups trimmed about the same amount from fat cells in the hip area.

The findings suggest that exercise may "preferentially increase" the body's breakdown of fat cells in the abdomen, said lead study author Dr. Tongjian You. It's possible, for instance, that hormonal factors cause fat cells in the abdomen and hip area to have different metabolic responses to diet and exercise, he told Reuters Health.

The bottom line for people trying to shed pounds is that both exercise and diet are important, and exercise may be particularly key in the ultimate distribution of a person's body fat, You said.

The researcher and his colleagues at Wake Forest University School of Medicine in Winston-Salem, North Carolina, report the findings in the International Journal of Obesity.

The study included 45 obese middle-aged women who were randomly assigned to one of three groups: one that cut calorie intake alone; one that cut calories and walked at a moderate pace three days per week; and a third that dieted and walked at a more intense pace three days a week.

After 20 weeks, all three groups showed improvements in their weight and body fat percentage. But when the researchers took samples of body fat from just below the skin's surface, the differences between exercisers and non-exercisers emerged.

Women in both exercise groups showed about an 18 percent reduction in the size of abdominal fat cells, whereas dieters showed no change.

Losing abdominal fat is more than a matter of fitting into a smaller dress. Research shows that people who are "apple-shaped" are more likely to develop diabetes and heart disease than "pear-shaped" individuals, who carry much of their fat below the waist.

So people who include exercise in their weight-loss plan may lower their risk of such diseases to a greater degree, You said. What's more, he noted, even if people fail to lose a

significant amount of weight with regular exercise, the changes in abdominal fat cells might still benefit their health.

SOURCE: International Journal of Obesity, August 2006.