CLINICAL

Obesity, Inactivity Tied to Diabetes

Target both fitness and fatness to help control diabetes and diabetes-related comorbidities in the general population, advised Patrick W. Sullivan, Ph.D., of the University of Colorado, Denver, and his associates.

The Medical Expenditure Panel Survey, a nationally representative survey of the U.S. population, was used to gather data on 68,500 adults from 2000 to 2002. After the investigators controlled for various factors, the data showed that being overweight or inactive was significantly and independently linked to an increased risk of diabetes and related comorbidities such as hypertension, hyperlipidemia, and heart disease (Diabetes Care 2005;28:1599-1603).

Inactive, normal-weight subjects had a lower risk (odds ratio 1.52) of diabetes, compared with obese, active subjects (odds ratio 3.62).

More Desk Time, Bigger Waistline

The more time men spend sitting at work, the greater their risk of being overweight or obese, reported W. Kerry Mummery, Ph.D., of Central Queensland University, Rockhampton, Australia, and associates.

In a cross-sectional study of 875 men and 704 women who worked full time, average time spent sitting at work was more than 3 hours per day, and 25% reported sitting more than 6 hours per day. There was a significant gender difference, with men sitting an average of 209 minutes and women sitting an average of 189 minutes (Am. J. Prev. Med. 2005;29:91-7).

Using a univariate analysis, the investigators found that having a body mass index (BMI) of 25 kg/m² or greater was associated with time spent sitting at work in men but not in women. After adjustment for age, occupation, and physical activity levels, men who reported sitting at work for more than 6 hours per day had an odds ratio of 1.92 for having a BMI of 25 or higher, compared with men who reported sitting for less than 45 minutes per day.

Plasma Peptides Influence Satiety

Apelin, orexin-A, and leptin levels in the plasma appear to work together to influence satiety, reported M.V. Heinonen and colleagues at the University of Kuopio (Finland).

The investigators measured basal plasma values in 32 morbidly obese subjects and 12 healthy controls; a subgroup of 8 obese patients also had their basal peptide plasma values measured the day before gastric banding surgery and 1 year later.

Apelin, orexin-A, and leptin levels were found to be significantly higher in obese subjects than in controls (736 pg/mL vs. 174 pg/mL, 75.3 pg/mL vs. 0.8 pg/mL, and 79 pg/mL vs. 5.8 pg/mL, respectively). Plasma apelin and leptin concentrations were significantly correlated with body mass index, whereas orexin-A was only weakly correlated with BMI. "The increased plasma concentrations of these peptides in obese patients suggest an influence on satiety," the investigators explained (Regul. Pept. 2005;130:7-13).

One year after surgery, the eight gas-

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tric-banding patients had achieved significant weight loss: Average BMI had dropped from 48 to 39. Orexin-A levels remained the same from before the operation to a year later, but plasma leptin levels were significantly lower, falling from 45.1 ng/mL to 27.3 ng/mL.

Setting Up Obesity Programs

To launch effective obesity treatment programs in primary health care centers, health professionals need education, support from colleagues, and backing from management, reported Ingela Melin of

the Karolinska Institute, Stockholm, and her associates.

In a study of 135 health providers followed for 2.5 years, 87 (64%) started an obesity treatment program after receiving training and mentoring in person and by telephone (Patient Educ. Couns. 2005;58:127-36).

Most (69%) of the providers were nurses. Previous theoretical education in obesity was significantly associated with starting the program, as was practical experience in treating obesity. Receiving in-person and telephone supervision were also significant positive influences on starting the program.

But there were obstacles to starting an obesity program, including priority given to ongoing medical care, lack of time to start a new program, negative provider views of obese people, staff turnover, and a lack of support from management, physicians, and colleagues. The most significant factors in getting a program started were having a colleague to work with (30 of 33 who had a colleague started one, while 45 of 102 who had no colleague didn't) and management backing (73 of 87 who had backing started a program; 34 of 48 with no backing didn't start a program).

-Kevin Foley

