



# Clinical Digest

## SURGERY

### Get 'Em Up and Walking

The longer patients with hip fractures stay in bed after surgical treatment, the worse their prospects, according to findings from a prospective cohort study conducted by researchers at Mount Sinai School of Medicine and Hospital for Joint Diseases, both in New York, NY; Bronx New York Harbor VA Geriatric Research, Education and Clinical Center, Bronx; and Dartmouth Medical School, Hanover, NH.

Collecting information on 532 patients aged 50 and older who were admitted consecutively to four hospitals for hip fracture, the researchers found that the patients experienced, on average, 5.2 days of immobility (defined as days from admission until the patient moved out of bed and beyond a chair) in the hospital. Increased immobility was associated with significantly poorer function at two months and higher mortality at six months. The difference in functional outcomes lessened with time, however, and by six months, there was no significant difference in locomotion between patients at the 10th percentile of immobility duration and patients at the 90th percentile.

The researchers also found that increased pain, administration of general anesthesia, need for blood transfusion, and presence of an indwelling catheter more than three days after surgery were all associated with total duration of immobility. For this reason, they suggest improving pain management, reconsidering the route of anesthesia, removing indwelling catheters early, and making adjustments for the immobilizing effects of postoperative transfusions (for example, using hepa-

rin locks) in patients who undergo hip fracture surgery. They also advise getting patients up and around as soon as they can tolerate it, as studies have shown that early mobilization does not increase the rate of surgical revisions and that moving in bed and using a bedpan can put similar stresses on the hip as those resulting from ambulation.

Source: *Arch Intern Med.* 2006;166:766-771.

## PREVENTIVE MEDICINE

### Fiber—An Insulin Friendly Food?

Epidemiological studies have shown that insoluble cereal fibers protect against type 2 diabetes and cardiovascular disease. Exploring the reason behind fiber's shielding effect, researchers from German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal; Charité-University-Medicine, Berlin; and University Hospital Innenstadt, Munich, all in Germany, investigated the effect of a high fiber diet on insulin sensitivity through a randomized, controlled, single-blind, crossover study. They found that adding fiber can have effects on glucose metabolism in as few as 72 hours.

In their study, 17 overweight or obese women with normal glucose metabolism ate three macronutrient-matched portions of white bread (control) or white bread enriched with 10.4 g insoluble fiber per portion for three days. The test breads were produced in one batch and contained 96% total fiber, with 93% insoluble fiber.

To adjust for caloric intake, the women were given standardized liquid meals to avoid weight loss and cover metabolic rate, which was assessed for each participant before the start of the

study. Energy intake was individually adjusted by determining the resting energy expenditure and modifying it for light physical activity. No other meals and only noncaloric drinks, without caffeine, were allowed.

Using a hydrogen breath analyzer, the researchers determined that 13 women adhered to the diet. In these women, the high fiber diet significantly improved whole body glucose disposal compared with the control diet ( $6.85 \pm 0.34$  versus  $6.06 \pm 0.32$   $\text{mg} \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$ , respectively), which is the equivalent of a 13% improvement in insulin sensitivity.

The researchers found that other possible influences on insulin sensitivity (including blood lipids, serum ghrelin, or serum adiponectin concentrations) were not affected by the increased fiber intake. Based on these findings, they say the currently recommended intake of insoluble dietary fiber may be underrepresented and that an emphasis on such foods as cereal, fruit, and vegetables may be an effective and low cost way to reduce insulin resistance. ●

Source: *Diabetes Care.* 2006;29:775-780.