Study: Losing Or Gaining Weight After Joint Replacement Affects How Well Patients Do

While many overweight patients have the best intentions to lose weight after joint replacement, a study at Hospital for Special Surgery (HSS) finds that although some are able to achieve this goal, equal numbers of patients actually gain weight after hip or knee replacement. Researchers also determined that patients who lose weight do better in terms of function and activity level two years down the road.

"Our findings represent the first report to present evidence that weight loss is associated with improved clinical outcomes, while weight gain is associated with inferior outcomes, although these results are really not surprising," said Geoffrey Westrich, MD, senior investigator and director of research, Adult Reconstruction and Joint Replacement at Hospital for Special Surgery.

More than one million knee and hip replacements are performed in the United States each year, according to the Centers for Disease Control and Prevention. (Knee = 719,000; Hip = 332,000).

Following almost 7,000 patients enrolled in the joint replacement registry at HSS, researchers found that while some patients lost or gained weight after joint replacement, the majority of patients maintained the same body mass index, or BMI, that they had prior to surgery.

The paper, titled, "Weight Change after Hip and Knee Arthroplasty: Incidence, Predictors and Effects on Clinical Outcomes," will be presented at the annual meeting of the American Academy of Orthopaedic Surgeons in New Orleans on March 14.

"Previous studies provided conflicting evidence regarding whether patients lose or gain weight after lower extremity joint replacement," Dr. Westrich said. "And prior to our study, there was little research examining whether weight change after joint replacement was associated with a difference in clinical outcomes. We aimed to answer these questions, and also see if there are factors that predispose patients to gain or lose weight after surgery."

Using the HSS joint replacement registry, researchers examined the two-year change in body mass indices (BMI) for all patients undergoing elective hip or knee replacement surgery to relieve osteoarthritis.

A total of 3,036 knee and 3,893 hip replacement surgeries were reviewed. Findings:

- Seventy-four percent of total knee replacement patients and 84 percent of total hip replacement patients did not demonstrate a change in BMI

following surgery.
- Patients who underwent knee replacement were more likely to lose weight after surgery than those undergoing hip replacement.
- Patients who were obese prior to joint replacement were more likely to lose weight than those who were of normal weight or overweight, but not obese.
- Overweight or obese females undergoing joint replacement were more likely to lose weight than their male or normal weight counterparts.
- Patients with higher preoperative activity scores were more likely to maintain their weight than to gain or lose weight.

Researchers considered a number of other factors to see if they were associated with a change in weight. These factors included patient scores on preoperative surveys to assess pain, stiffness, and physical function; whether the patient was discharged to home or a rehabilitation facility; whether or not the patient smoked; and co-existing health problems such as diabetes, hypertension and depression. None of these factors was determined to predispose patients to experiencing weight gain or loss after joint replacement.

When comparing clinical outcomes, investigators looked at Physical Component Scores (PCS), which consider such factors as pain and functioning, and Lower Extremity Activity Scores (LEAS), which assess activity levels.

- Knee replacement patients who lost weight following surgery demonstrated significantly better scores when compared to those who maintained or gained weight after surgery.
- Weight gain was associated with inferior PCS and LEAS scores for both hip and knee replacement patients.

"Based on our findings, as physicians, we should convey to our patients the importance of maintaining good health and an appropriate weight, and we should help them in any way we can to achieve this goal," Dr. Westrich said.

Source URL (retrieved on *05/04/2015 - 2:10pm*):
http://www.surgicalproductsmag.com/news/2014/03/study-losing-or-gaining-weight-after-joint-replacement-affects-how-well-patients-do