

Long-term improvement seen with hip replacement

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Total hip arthroplasty (THA), or hip replacement, is an effective treatment for osteoarthritis (OA), but most studies have only followed patients for up to one year. A new study published in the December issue of *Arthritis Care & Research* examined patients after an average of eight years following hip replacement and found a long-term positive impact on their physical functioning.

Led by Professor Cyrus Cooper and Ms. Janet Cushnaghan of the University of Southampton in Southampton, UK, the study included 282 patients from two English health districts who had OA and were placed on the waiting list for a hip replacement between 1993 and 1995. It also included 295 matched controls from the general population.

At the start of the study patients were interviewed about hip injury, pain, physical function, vitality and mental health. In addition, their BMI was calculated, their hands were examined for Heberden's nodes, an indication of OA, and their hip X-rays were evaluated for severity of OA. Between 2001 and 2004, they completed a self-administered questionnaire asking if and when they had undergone hip replacement, as well as questions about their physical function, vitality and mental health. Follow-up of the patients took place an average of eight years following hip replacement.

The results showed that patients who were waiting for a hip replacement had markedly worse physical functioning than the controls but only small differences in vitality and mental health at the start of the study. By the



time of the follow-up, the physical functioning of the OA patients had improved (while that of the controls had deteriorated) but their vitality had deteriorated. In addition, better physical functioning at the start of the study was associated with a greater decline at follow-up, but higher BMI seemed to have no impact. Those with more severe OA according to their X-rays showed the most improvement in physical functioning.

"Our findings are consistent with a sustained beneficial impact on physical functioning following THA for OA, but we found no evidence for parallel improvement in vitality or mental health," Professor Cooper stated. The researchers noted that the study is limited because it was an observational investigation as opposed to a randomized controlled trial and information about the patients' disease and surgical procedures was limited. But this weakness was offset by the fact that the study had a long follow-up interval and a relatively large number of patients and controls. "Even when allowance is made for possible confounding effects, the long-term improvement in the physical functioning of the cases is striking when set against the decline that occurred in controls," the authors note, suggesting that the benefits of hip replacement are substantial and long-lasting.

Although some previous studies have suggested that hip replacement benefits mental health as well, the current study did not find this to be the case, possibly because the mental health status of the patients at the beginning of the study was no different from the control group, even though they had greater physical limitations. Regarding the finding that BMI did not affect long-term physical functioning, the authors suggest that surgeons are perhaps careful in selecting obese patients for this procedure, but in any case a BMI in the range of up to 30 should not be a deterrent to hip replacement as long as the patient is healthy enough to undergo surgery.

The authors conclude that the study adds to the accumulating evidence



of the long-term benefits of hip replacement, especially in patients with more severe changes seen on X-rays, and that perhaps these patients should be given higher priority for the procedure.

Source: Wiley-Blackwell

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