

Rehabilitation within a day of knee replacement pays off

March 7 2011

Starting rehabilitation sooner following knee arthroplasty surgery could pay dividends - for both patients and hospitals. Commencing physical therapy within 24 hours of surgery can improve pain, range of joint motion and muscle strength as well as cut hospital stays, according to new research in the journal *Clinical Rehabilitation*.

Mindful of the trend towards discharging patients from hospital more rapidly after surgery in recent years, physical therapy and public health researchers from Almeria, Malaga and Granada in Spain set out to investigate whether an early start to [physical therapy](#) would improve recovery from knee arthroplasty surgery. They compared patients who began treatment within 24 hours of surgery with those who began 48-72 hours after their operation in a random, controlled clinical trial. Each group comprised over 150 patients aged 50-75.

The post-operative treatment began with a series of leg exercises, breathing exercises, and tips on posture. By the second day walking short distances with walking aids was added, and in subsequent days this was built up towards adapting to daily life activities, such as beginning to climb stairs on day four.

On average, those beginning treatment earlier stayed in hospital two days less than the control group and had five fewer rehabilitation sessions before they were discharged. An early start also lead to less pain, a greater range of joint motion both in leg flexion and extension, improved [muscle strength](#) and higher scores in tests for gait and balance.

Health systems are currently subjected to strong economic pressures, and a cutting the length of hospital stays has become a priority. Other benefits of early mobilization after this surgery are fewer complications such as [deep vein thrombosis](#), pulmonary embolism, chest infection, and urinary retention. With hospital-acquired infections such as [MRSA](#) also a serious concern, a shorter hospital stay might also lower the risk to patients of contracting this type of secondary infection.

"Orthopaedics, especially knee replacement [surgery](#), is one area that may lend itself to accelerated discharge," says author Adelaida M^a Castro Sánchez, from the University of Almeria. "We therefore postulated that early rehabilitation after total knee arthroplasty could accelerate the capacity of patients for daily life activities, and reduce their hospital stay."

Osteoarthritis is estimated to affect around three quarters of over 65s in developed countries, and when it affects the knees it can be intensely painful, affecting the gait and leading to deformity. As a result, replacing the knee joint with a surgical implant has now become a routine, but major, surgical procedure.

More information: Benefits of starting rehabilitation within 24 hours of primary total knee arthroplasty: randomised clinical trial by Nuria Sánchez Labraca, Adelaida Maria Castro-Sánchez, Guillermo A. Matarán-Peñarrocha, Manuel Arroyo-Morales, María del Mar Sánchez-Joya and Carmen Moreno-Lorenzo is published today, 7th March 2011, in *Clinical Rehabilitation*.

Provided by SAGE Publications

Citation: Rehabilitation within a day of knee replacement pays off (2011, March 7) retrieved 6

May 2024 from <https://medicalxpress.com/news/2011-03-day-knee.html>

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