

# Middle-age hip replacements nearly double from 2002-2011

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The number of total hip replacements (THRs) nearly doubled among middle-aged patients between 2002-2011, primarily due to the expansion of the middle-aged population in the U.S., according to a new study presented today at the 2015 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS). Continued growth in utilization of hip replacement surgery in patients age 45 to 64, an increase in revision surgeries for this population as they age, and a nearly 30 percent decline in the number of surgeons who perform THR, could have significant implications for future health care costs, THR demand and access.

Researchers used the Nationwide Inpatient Sample (NIS) to identify primary THRs performed between 2002 and 2011 in patients age 45 to 64, as well as related hospital charges. Population data and projections were obtained from the U.S. Census Bureau, and surgeon workforce estimates from the AAOS.

In 2011, 42.3 percent of THRs were performed in patients age 45 to 64 compared to 33.9 percent in 2002. Utilization of THR in this age group increased 89.2 percent from 2002 to 2011, from approximately 68,000 THRs in 2002 to 128,000 THRs in 2011. The overall population increased 21.3 percent. In addition, the authors found that:

- Growth of THR utilization in the 45- to 64-year-old age group grew 2.4 times faster than it did in the Medicare-aged population (age > 65).
- A rise in the prevalence of obesity, a known risk factor for hip

osteoarthritis, among middle-aged Americans was not significantly associated with increased THR utilization.

- Mean hospital charges in the THR 45- to 64-year-old age group declined 5.7 percent from 2002 to 2011, and declined 2.5 percent in the Medicare population (age > 65).
- Mean physician reimbursement per THR, in 2011 U.S. dollars, declined 26.2 percent over the same period.
- Concurrently, the number of physicians reporting that they performed THR surgeries declined 28.2 percent.

"The purpose of this study was to identify potential drivers of THR utilization in the middle-aged patient segment," said lead study author Alexander S. McLawhorn, MD, MBA, an orthopaedic surgery resident at the Hospital for Special Surgery in New York City. "Our multivariable statistical model suggested that the observed growth was best explained by an expansion of the middle-aged population in the U.S. This particular age group is projected to continue expanding, and as such the demand for THR in this active group of patients will likely continue to rise as well. Our results underscore concerns about consumption of premium-priced implants in younger patients and the future revision burden this trend implies in the face of a dwindling number of physicians who specialize in hip arthroplasty surgery."

**More information:** [Study abstract](#)

Provided by American Academy of Orthopaedic Surgeons

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