

AAOS: demand for arthroplasty to outpace surgeon capacity

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The demand for total joint arthroplasty (TJA) is expected to outpace the

orthopedic workforce, according to a study presented at the annual meeting of the American Academy of Orthopaedic Surgeons, held from March 7 to 11 in Las Vegas.

Matthew Edward Deren, M.D., from the UMass Memorial Medical Center in Worcester, and colleagues estimated the orthopedic surgeons contributing to the arthroplasty workforce including active orthopedic surgeons, residents, and adult reconstruction fellows using data on all total hip arthroplasties (THAs) and total knee arthroplasties (TKAs) identified in the National Inpatient Sample (2000 to 2018). The authors then projected the procedure-to-surgeon ratios for 2050.

The researchers found that during the study period, the volume of primary TJA increased by 130 percent. In 2050, the projected volume of primary THA will reach 1,219,852 procedures and the projected volume of primary TKA is 1,037,474 procedures. During the study period, the number of active orthopedic surgeons increased by 7.5 percent, while the TJA procedure-to-surgeon ratios increased 110 percent (from 31 in 2000 to 65 in 2017). From 2025 to 2050, the projected numbers of orthopedic surgeons contributing to the arthroplasty workforce are predicted to decrease 12.0 percent. From 2010 to 2021, the number of orthopedic residents increased 25.0 percent and the number of adult reconstruction fellows nearly doubled to 201. Projected increases in the orthopedic resident [workforce](#) will reach 1,173 by 2050, and fellows will reach 460. By 2050, primary TJA volume is projected to increase 51 percent and the number of active [orthopedic surgeons](#) is projected to decrease 14 percent, yielding an increase in TJA procedure-to-surgeon ratio of 97 percent by 2050.

"Managing this increased volume without compromising quality may require the increased use of high-volume surgical centers throughout and utilizing advanced practice providers like physician's associates and [nurse practitioners](#)," the authors write.

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