

# Use of technology assistance rising for total knee arthroplasties

November 22 2021

---



(HealthDay)—Use of technology-assisted elective total knee

arthroplasties (TKAs) increased from 2010 to 2018 and is associated with reduced odds of short-term complications, according to a study published in the October issue of *Arthroplasty Today*.

Ilya Bendich, M.D., from the Hospital for Special Surgery in New York City, and colleagues retrospectively identified patients who underwent primary, elective TKA between 2010 and 2018 and classified procedures as conventional, computer-assisted navigation (CAN), or robotic assistance (RA).

Of the 1,307,411 elective TKAs, 92.8 and 7.7 percent were conventional and technology-assisted, respectively (95.2 and 4.9 percent CAN and RA, respectively). The researchers found the greatest increase in utilization for RA-TKAs. The highest and lowest utilization of technologies for TKA were seen in the Western and Midwestern regions, respectively. Ninety-day [postoperative complications](#) requiring readmission were highest and lowest for conventional TKA and RA-TKA, respectively. Significantly lower odds of all-cause 90-day complications requiring readmission were seen for RA-TKA and CAN-TKA compared with conventional TKA (odds ratios, 0.68 and 0.93, respectively).

"The advantage of the robotic system is that it allows us to customize the procedure for each patient," a coauthor said in a statement. "It enables optimal alignment and positioning of the knee implant, as well as optimal ligament balancing, important to the long-term success of the surgery."

Several authors disclosed financial ties to the medical device industry.

**More information:** [Abstract/Full Text](#)



Citation: Use of technology assistance rising for total knee arthroplasties (2021, November 22) retrieved 14 May 2024 from <https://medicalxpress.com/news/2021-11-technology-total-knee-arthroplasties.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.