In the first systemic review of evidence assessing complications following total joint arthroplasty, patients with rheumatoid arthritis (RA) were found to have an increased risk for hip dislocation after hip replacement surgery compared to those with osteoarthritis (OA). Study findings published online in *Arthritis & Rheumatism*, a journal of the American College of Rheumatology (ACR), also indicate that RA patients have a higher infection risk following total knee replacement than patients with OA.

The ACR reports that OA—the most common form of arthritis—affects 27 million Americans 25 years of age and older, and another 1.3 million adults are living with RA. Previous studies show that one of the most effective treatment options for end-stage arthritis of the hip or knee is total joint replacement. Experts suggest that success with this intervention is evident given the increasing rates of joint replacements. According to the Centers for Disease Control and Prevention (CDC) 676,000 total knee replacements and 327,000 total hip replacements were performed in the U.S. in 2009.

"Joint arthroplasty is successful in relieving the pain and disability caused by hip or knee arthritis," said lead author Dr. Bheeshma Ravi from the University of Toronto and Women's College Research Institute (WCRI) in Canada. "While complication rates are low there are some cases with serious consequences that include infection, joint dislocation, blood clots and even death."
To explore this important issue, Dr. Ravi and colleagues conducted a systemic review of the literature to assess complication risk in OA and RA patients following joint replacement surgery. Evidence from January 1990 to December 2011 was evaluated and 40 studies were included in the analysis. The study population included patients aged 18 years or older who had hip or knee replacements and excluded patients who had replacement surgery due to a fracture or cancer. Studies that involved 200 joints or more were incorporated in the current analysis.

Analysis shows RA patients had a higher risk of dislocation following hip replacement surgery than patients with OA. RA patients who had total knee replacements were also at higher risk of infection compared to those with OA. The team found no difference in revision rate, 90-day mortality or blood clot risk between the two patient groups. Dr. Ravi concludes, "Additional studies to confirm our findings are necessary and further investigation of possible reasons for differences in joint replacement complication rates between RA and OA patients is needed."

**More information:** "A Systematic Review and Meta-analysis Comparing Complications following Total Joint Arthroplasty for Rheumatoid Arthritis versus Osteoarthritis." Bheeshma Ravi, Benjamin Escott, Prakesh S Shah, Richard Jenkinson, Jas Chahal, Earl Bogoch, Hans Kreder, Gillian Hawker. Arthritis & Rheumatism; Published Online: November 28, 2012 ([DOI: 10.1002/art.37690](https://doi.org/10.1002/art.37690)).

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