

Joint replacement to cost \$5 billion by 2030: study



Monash University; Australian Orthopaedic Association

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Knee and hip replacements for osteoarthritis are expected to rise by up to 276 per cent by 2030, costing Australia's health care system over \$5 billion, according to new research.

A new study has found that obesity and an ageing population will be the main drivers of growth in joint replacement surgeries for osteoarthritis (OA), with people aged over 40 more likely to undergo surgery.

The 2030 projections are based on data obtained through the <u>Australian Orthopaedic Association</u> <u>National Joint Replacement Registry (AOANJRR)</u> which includes joint replacement procedures performed across Australia from 2003 to 2013.

The study, published today in BMC Musculoskeletal Disorders, found;

- Knee-replacement procedures for OA were forecast to increase by 276 per cent (from 42,920 procedures in 2013 to 161,231 in 2030)
- Hip replacement procedures for OA were predicted to rise by 208 per cent (from 25,945 procedures in 2013 to 79,795 in 2030)
- The proportion of Australian adults who are overweight or obese is anticipated to exceed 70 per cent by 2030, resulting in an extra 25,000 knee replacement surgeries, costing an additional \$521 million.
- Reducing obesity levels in Australia by 5 per cent could result in up to 8,062 fewer procedures saving \$170 million.

Hip and knee replacements remain cost-effective operations for patients with end stage arthritis and numerous studies have demonstrated decreased pain, improved function and better quality of life following joint replacement.

But study author, Associate Professor Ilana Ackerman, from Monash University's School of Public Health and Preventive Medicine, said the study raised concerns about Australia's capacity to meet future national demand for joint replacement surgery.

"If surgery trends for osteoarthritis continue, Australia faces significant healthcare budget and health workforce implications," Associate Professor Ackerman said.

"These results provide a strong policy and public health argument for supporting weight-loss campaigns and interventions. Strategies to reduce national obesity could produce important knee replacement-savings."

Co-author and AOANJRR Deputy Director Richard de Steiger said meeting the large growth in surgical demand will also prove challenging for Australia due to pressures on the surgical workforce and health budgets.

"Careful planning is needed to manage the impact of the expected rise in hip and knee replacements on the surgical workforce, operating theatre wait-times, and the pressure on hospital administration," said University of Melbourne Professor de Steiger, who is based at Epworth Healthcare, Richmond.





"Maintaining patient access to these procedures to enable improved quality of life and reduced pain is essential."

The study was conducted to raise awareness of the problem and to inform future healthcare resource planning policies.

Associate Professor Ackerman said: "In order to meet joint replacement demand in 2030 and beyond, investment in prevention programs designed to limit obesity and other causes associated with hip and knee burden in Australia demands serious consideration."

Media Enquiries

Ben McAlary 0417 351 724

About the Australian Orthopaedic Association

The Australian Orthopaedic Association (AOA) is the peak professional body for orthopaedic surgeons in Australia. AOA provides high quality specialist education, training and continuing professional development. AOA is committed to ensuring the highest possible standard of orthopaedic care and is the leading authority in the provision of orthopaedic information to the community. AOA actively supports scientific research and orthopaedic humanitarian initiatives in Australia and overseas.