

# Patients with metabolic disorder may face higher complication risk following total joint replacement

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In a new study presented today at the 2014 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), researchers found that total joint replacement patients with three or more metabolic syndrome risk factors were almost three times as likely to have complications within the first year after joint replacement.

Metabolic syndrome is a combination of disorders, such as obesity with a [body mass index](#) (BMI)  $\geq 30\text{kg/m}^2$ , dyslipidemia (an abnormal amount of lipids in the blood), hypertension and diabetes. An estimated 47 million adults, ages 20 and older, and one million adolescents in the U.S. have this syndrome which increases the risk of cardiovascular disease.

The study, "Impact of Metabolic Syndrome on Peri-Operative Complication Rates after Total Joint Replacement Surgery," included 168 patients with characteristics of metabolic syndrome who underwent total hip and [total knee replacements](#). Of the 39 patients with three or more risk factors, only 21 (16.3 percent) had complications within the first year. Obesity, measured by BMI, had the biggest impact on postoperative complications, with complications occurring in 16.2 percent of the patients with a BMI greater than 30 kg/m<sup>2</sup>. For patients with BMI below 30 kg/m<sup>2</sup>, risk for complications was only 1.6 percent. The impact of BMI becomes even greater when combined with hypertension: 30.8 percent of patients with a BMI  $\geq 30\text{kg/m}^2$  and hypertension experienced complications.

Identifying, counseling and addressing these issues in patients with [metabolic syndrome](#) risk factors could reduce complication rates, according to the study authors.

Provided by American Academy of Orthopaedic Surgeons

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