

# Hip replacement reduces heart failure, depression and diabetes risk

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In addition to improving life quality and diminishing pain, total hip replacement (THR) is associated with reduced mortality, heart failure, depression and diabetes rates in Medicare patients with osteoarthritis, according to a new study presented today at the 2013 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS). The procedure also is cost effective with the 7-year costs of THR only \$6,366 higher than the cost of treating an osteoarthritis patient for hip pain without THR.

"The study has demonstrated that THR confers a potential long-term benefit in terms of prolonged lifespan and reduced burden of disease in [Medicare patients](#) with osteoarthritis of the hip," said lead study author Scott Lovald, PhD, a researcher at Exponent, Inc.

While the short-term benefits of THR are well known and documented, less information exists on the long-term effects, cost and value of the surgery.

Using Medicare codes, researchers identified more than 43,000 patients with osteoarthritis of the hip from 1998 to 2009. These patients were divided into two groups – those receiving THR and those not receiving THR. The researchers followed all of the patients for at least one year, and nearly 24,000 for seven years, looking at annual [Medicare payments](#), mortality, and new diagnoses of [congestive heart failure](#), ischemic heart disease, arteriosclerosis (hardening and narrowing of the arteries), diabetes and depression. The data was adjusted for differences in age, sex, race, buy-in status, region and Charlson score (standard quantification of the number and severity of comorbidities a patient presents with).

Among the results:

- The THR patients had a consistently lower

[mortality risk](#) – less than 52 percent of that in the non-THR group.

- [Heart failure](#) was similar between groups in the first year, but there was a consistent reduced risk (risk was between .85 and .92 of the risk for the non-THR group) at 3-to-7 years following surgery.
- THR patients had a reduced risk of diabetes at one and three years.
- THR patients had a reduced rate of depression starting at three years post THR surgery.

The THR patients in the study did have an increased risk of ischemic heart disease and atherosclerosis at one year, and an increased risk of "cardiovascular disease unspecified" over all time points.

The seven-year cumulative average Medicare payment for all medical care was \$82,788 for non-THR patients and \$89,154 for THR patients, for a difference of \$6,366. The actual average per-patient THR cost is expected to be much less than \$6,366 when differences in costs incurred due to prescription pain medications are taken into account.

"Joint (replacement) has been proposed as possibly cost-saving in the management of disability related to arthritis," said Lovald. "This study provides supporting data to evaluate the cost-effectiveness of THR."

Provided by American Academy of Orthopaedic Surgeons

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