

# Total hip replacement surgery may increase risk of stroke

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Risk of [ischemic stroke](#) increases by nearly 4.7-fold and [hemorrhagic stroke](#) 4.4-fold during the first two weeks after total hip replacement surgery, according to new research in the American Heart Association journal *Stroke*.

"This is the first study to evaluate the risk of stroke in patients undergoing total hip replacement compared to people in the general population who did not undergo the surgery, but were matched for age, sex and geographical region," said Frank de Vries, Ph.D., Pharm.D., the study's lead author and assistant professor of pharmacoepidemiology at Utrecht University in the Netherlands.

"It makes sense to evaluate the risk of stroke two weeks after surgery. There is an increasing tendency to decrease the length of hospital stay because of improved therapy and because of strategies to reduce costs and mobilize patients as soon as possible."

A hemorrhagic stroke is caused by bleeding in the brain and an ischemic stroke is caused by [artery blockage](#).

Researchers evaluated the timing of strokes in the first two weeks after total [hip replacement surgery](#); in two to six weeks; six to 12 weeks; three to six months; and six to 12 months.

The risk of [ischemic stroke](#) remained elevated for the first six weeks following surgery and for the first 12 weeks for [hemorrhagic stroke](#).

"Up to one year following surgery, there is diminishing risk of stroke after six to 12 weeks," de Vries said. "At one year, the [stroke risk](#) is comparable to those who did not undergo surgery."

Total hip replacement is increasingly common and highly successful in the United States and Europe, researchers said. About 1 million hip replacement surgeries are performed worldwide each year, with about 300,000 in the U.S., researchers said.

Researchers identified 66,583 patients in Danish registries who had undergone total hip replacement and compared them to 199,995 who had not undergone the surgery. Study participants were an average 72 years old, majority Caucasian and 63.1 percent women.

In another aspect of the study, researchers examined the role of various medications in reducing the risk of stroke. The findings show that patients who were using aspirin had a lower risk of stroke by as much as 70 percent, compared to those who did not take aspirin. Other medications didn't show an effect.

Researchers plan to continue their investigation of stroke risk following total hip replacement in different populations.

To help recognize a stroke, remember [F.A.S.T.](#) and the symptoms that come on suddenly.

Provided by American Heart Association

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