

## Aspirin equals pricier blood thinner for preventing clots

June 4 2013, by Serena Gordon, Healthday Reporter

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After hip replacement, no disadvantage found for the low-cost treatment.

(HealthDay)—Aspirin appears to be just as good as more expensive, more potent blood-thinning medication for preventing blood clots after hip replacement surgery, according to new research.

People who get artificial hips are at risk of serious blood clots, such as [deep vein thrombosis](#) and [pulmonary embolism](#), after the surgery. To prevent them, doctors usually prescribe blood-thinning (anticoagulant) medications, such as low-molecular-weight heparin, which is given by injection, or the newer drug, rivaroxaban (brand name Xarelto), a pill.

But that old medicine-cabinet standby, aspirin, also has blood-thinning properties. And the Canadian researchers wondered if this simple, inexpensive drug could also prevent blood clots after a major surgery.

They compared the drugs for four weeks, following 10 days of treatment with heparin immediately post-surgery.

The investigators found the two medications were similarly effective and safe. Where the medicines differ significantly is in cost.

"Low-molecular-weight heparin and the newer blood thinner, Xarelto, are similarly priced; they're several hundred-fold more expensive than aspirin," said the study's lead author, Dr. David Anderson, a professor and head of the department of medicine at Dalhousie University in Halifax, Nova Scotia.

"Given the low cost of aspirin and its convenience, it's a reasonable alternative to low-molecular-weight heparin when used in the manner designed in this trial," said Anderson.

Another expert said the study results, published in the June 4 issue of the *Annals of Internal Medicine*, support previous observations. "After initial treatment with an anticoagulant, then giving aspirin to these patients for the prevention of [serious blood clots] is as good," said Jawed Fareed, professor of pharmacology and pathology and director of the hemostasis and thrombosis research unit at Loyola University Medical Center in Maywood, Ill.

For the study, Anderson and his colleagues recruited 778 patients undergoing elective [hip replacement surgery](#) between 2007 and 2010. All received 10 days of heparin (dalteparin) following surgery. After that, they were randomized into one of two groups for four more weeks of blood-thinning therapy. Half continued receiving [heparin](#) injections, while the other half took low-dose (81 milligrams) aspirin daily.

Five people on dalteparin and one on aspirin developed a blood clot. The absolute difference between the two therapies was 1 percent. Bleeding

events serious enough to require treatment occurred in five people on dalteparin, and two on aspirin.

Anderson said the difference in bleeding events wasn't statistically significant, but there was a trend toward aspirin being the safer alternative. However, it's too soon to tell definitively whether aspirin might cause less bleeding, he said.

Anderson said the researchers had to stop the study early because they weren't able to recruit the desired number of patients. While the study was under way, Xarelto was approved, and because it's a pill instead of an injectable like dalteparin (brand name Fragmin), it became difficult to find volunteers for the multiple injection part of the trial.

The researchers are now duplicating the study, but comparing Xarelto to aspirin this time. They're also including people having knee replacement surgery, and they're only using five days of initial treatment with the more powerful blood-thinner.

"If aspirin turns out to be as good as Xarelto, given the number of joint [replacement] surgeries done in North America, it could save the health care system millions if it's proven to be at least as effective," said Anderson.

Fareed said he would not use aspirin immediately after the surgery. "But once that initial phase settles down, I think aspirin is a good option. And, I'm confident that the bleeding will be less with aspirin," said Fareed.

He said doctors may not turn to aspirin right away, and would probably wait until medical groups write new guidelines suggesting [aspirin](#) as the standard of care. But it's certainly a topic that patients could bring up with their doctor before surgery, he suggested.

"I think we have demonstrated that a very simple, inexpensive oral therapy appears to be as good as a more expensive, more potent, less convenient anticoagulant agent for the prevention of [blood clots](#) following total hip replacement," concluded Anderson.

**More information:** The U.S. Agency for Healthcare Research and Quality has more on [preventing blood clots](#).

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