

Increase in heart attack risk after joint surgery low but persistent

Posted By [Daniel Pendick](#) On July 30, 2012 @ 5:24 pm In [Arthritis, Heart Health](#) | [Comments Disabled](#)

There's an old saying in the news business: If it bleeds it leads. So when a [recent study](#) in the *Archives of Internal Medicine* announced that the risk of having a heart attack is up to 31 times higher immediately following joint replacement surgery, it was a headline opportunity health reporters found hard to resist.

Those relative risk numbers (they compare heart attack rates between people who had joint-replacement surgery and those who didn't) could be terrifying for someone who needs to have a knee or hip replaced. The *absolute* risk numbers offer some reassurance. In the six weeks following surgery, one in 200 people in the study who got a new hip and one in 500 who had a knee replaced suffered a heart attack.

Joint replacement carries a heart attack risk, but compared to major open surgeries, "the risk is not unusually high," notes Dr. William Kormos, editor in chief of *Harvard Men's Health Watch*. Older people have a 1% to 2% risk of dying or having a heart attack in the month after major abdominal or chest surgery. "Total hip and total knee replacement is not as risky, but is still a major operation," Dr. Kormos says.

One new point the study underscored is that the elevated risk may last longer than previously thought. Though earlier research had suggested a danger zone lasting four to five days after joint replacement—coincidentally, the period in which many people are discharged from the hospital—the elevated heart attack risk may persist for two to six weeks.

"Joint replacement surgery has all sorts of effects that last many days beyond the operation itself," explains Dr. Thomas Lee, a professor of medicine at Harvard Medical School and editor in chief of the *Harvard Heart Letter*. "There is a lot of inflammation as the body tries to repair the damage, and the circulating proteins make blood clots more likely to form—both at the site of surgery, and in the arteries of the heart and elsewhere. That is why the heart attacks continue for so long afterwards."

## How high, and for how long?

In the *Archives* study, [published online last week](#), researchers examined health records of more than 95,000 people in Denmark who had undergone total hip or knee replacement surgery and compared their heart attack rates to those of similar individuals who had not undergone surgery. This is what the study found:

- The risk of a heart attack was 26 times higher for two weeks after hip replacement. Even six weeks after surgery, the risk was still five times that of the comparison group.
- The risk of heart attack was 31 times higher in the first two weeks after knee replacement, but dropped to background levels after that.
- The risk was elevated only in people 60 and older, with the highest risk seen in people over 80.

## What it means for you

This study, though not the last word on this issue, raises the question of whether people who have a knee or hip replaced ought to be watched for a longer period—assuming this finding is confirmed by further research.

"Blood thinning medications are an important part of treatment after major orthopedic surgery, and these data provide a reminder that they should be considered for more than the first few days," Dr. Lee explains. "In

addition, when patients have symptoms that might represent heart problems after surgery, they warrant immediate attention.”

Joint replacement, like other types of major surgery, is a “stress test” for the cardiovascular system. If you or a loved one has such surgery, in the weeks that follow be extra quick to call your doctor, or 911, if you are experiencing symptoms that you think might be signaling a heart attack.

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