

# Study finds risk from popular heart bypass method

July 15 2009, By MARILYNN MARCHIONE , AP Medical Writer

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(AP) -- A common method used in heart bypass surgery spares patients pain and problems upfront but seems to raise their risk of dying or suffering a heart attack over the next three years, a worrisome new study finds. The results could have a big impact - about 450,000 bypass operations are done each year in the United States and 70 percent of them use the method at issue.

It involves the way doctors remove a leg vein that is cut up and moved to the chest to create detours around clogged heart arteries.

For decades, this was done with a long incision - sometimes groin to toe. That was painful, left a big scar and often led to infections and longer time in the hospital.

About 13 years ago, doctors started trying a new way: making small "porthole" cuts and using a tiny scope and tools to tunnel along the vein and pull it out through the small openings. This quickly became popular as part of a big push toward less invasive surgery.

The new study is "a wake-up call" to rethink the approach, said study leader, Dr. John Alexander of Duke University Medical Center.

It found that people who had the small-incision method were significantly more likely to die, suffer a [heart attack](#) or need another artery-opening procedure in the following three years. The likely reason is that the vein suffers damage from being pulled out and doesn't hold up

well over time.

"This is a very worrisome finding," said Dr. Timothy Gardner, a heart surgeon at Christiana Care Health Services in Wilmington, Del., and former American Heart Association president.

More research is needed to confirm the results, but doctors probably should use the technique more sparingly or handle the vein more carefully when they do pull it out, Gardner said.

Results were published Thursday in the [New England Journal of Medicine](#).

The research involved 3,000 patients at more than 100 sites around the country who had been part of another study testing an [experimental drug](#). Because its primary aim wasn't to evaluate the leg artery removal technique, the results are not considered definitive.

Still, it is the largest study, with the longest follow-up, to look at this method, and the results are a surprise, doctors said. More than 9 percent of people whose veins were removed with the newer small-incision method died or suffered a heart attack in the following three years, versus fewer than 8 percent of those who had the traditional big incision.

The results are a cautionary tale about rushing to adopt approaches that seem better for patients but may have hidden dangers, said Dr. Robert Guyton, cardiothoracic surgery chief at Emory University Hospital in Atlanta. He had a few patients who took part in the study.

"There is a big push, both from patients and from cardiologists, for small incisions, minimally invasive techniques," he said. "That push sometimes pushes surgeons to adopt these types of procedures that have not been vetted as well as they might be."

A very small study two years ago showed that giving patients a blood thinner before pulling out the leg vein dramatically cut the chances that a clot would later form in the vein.

"Many of us changed our techniques" after that to include the blood thinner, Guyton said. However, it is not known whether that has improved results, or how it compares to the traditional big open incision to remove the vein.

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On the Net:

New England Journal: [www.nejm.org](http://www.nejm.org)

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