



## **New Knee Surgery Offers Speedy Recovery**

By LAURAN NEERGAARD  
AP Medical Writer

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WASHINGTON -- Just nine hours after Grover Thomas had his knee replaced, he hobbled home from the hospital. Five days later, he was walking unassisted, no crutch or cane in sight.

Some 300,000 Americans a year have total knee replacements, and many might be green with envy upon reading this: The operation usually requires several days in the hospital and weeks on crutches, not counting arduous physical therapy.

Now, a small but growing number of surgeons are implanting the manmade joint with less of that -- through a mere 3-inch incision and without cutting a muscle and tendon that are crucial for knee flexing. The changes promise less pain and faster recovery.

**At least one, Dr. Richard Berger, even offers it as outpatient surgery, so far sending Thomas and 22 other patients home within hours of the operation. It's "a little like building a ship in a bottle," says Berger, of Chicago's Rush University Medical Center. "It takes a little bit of practice and a little bit of skill."**

Patients recover three times faster than with standard surgery, says Dr. Alfred Tria of New Jersey's Robert Wood Johnson Medical School, who pioneered the new method and has used it on 140 patients.

It's not suitable for everyone, Tria cautions: People who are obese, over age 80, have had other nonarthroscopic knee surgery or are very knock-kneed or bowlegged don't qualify.

But Tria predicts that within five years, the minimally invasive method will account for about 40 percent of total knee replacements. "Other patients that are in (physical) therapy at the same time I am are eight weeks out and still on crutches," says Thomas, 59, an insurance company chief executive in Lake Forest, Ill., who wore out his natural knee running marathons.

In contrast, Thomas went on a half-hour outdoor bike ride just three weeks after his Feb. 3<sup>rd</sup> surgery. He's not completely recovered -- the knee still is tender, and he's still in physical therapy. But "no one that sees me can believe it" is a brand-new knee, Thomas says.

People undergo total knee replacement when arthritis or injury erodes the joint's natural cushioning to the point where it's hard to walk even short distances without severe pain. A recent analysis commissioned by the National Institutes of Health said the treatment gives tremendous relief and a much-improved quality of life.

Still, the operation and recovery can be grueling. Traditionally, surgeons make a 12-inch incision in the front of the knee, peel back the kneecap, and cut through the quadriceps muscle and a tendon that attaches it. That allows open access to the thigh and shin bones, which are cut to fit the metal-and-plastic joint implant.

It is healing of the muscle and tendon that causes much of the pain during recovery, as patients must stretch those injured parts to regain knee motion. With the new procedure, doctors make a 3-inch incision slightly to the kneecap's side, and harmlessly slide under the muscle and tendon to get to the bones that need cutting. Then the same artificial joint is squeezed into place.

Key was creating specialized surgical instruments that could allow bone cutting in such tiny quarters. Tria and Dr. Thomas Coon of Redding, Calif., developed the method and asked joint manufacturer Zimmer Inc. to make the instruments.

"We get essentially the same bone cuts as you used to get with the knee wide open," says Tria. "The principles of the operation have to remain exactly the same."

The cost of knee replacement varies around the country, from \$22,000 to \$39,000, usually covered by insurance. The new method's shorter hospital stays could cut the bill by 30 percent, Tria says.

He hospitalizes patients for two days instead of the standard operation's four, saying the stay "probably is a little bit of emotionalism on our part and a little bit of safety the patients like." Other surgeons keep patients only overnight. **Chicago's Berger, best known for developing minimally invasive hip replacement, is believed the first to offer the outpatient option.**

Surgeons have been inching toward less invasive knee replacement, and this method "is reasonable," but there aren't yet studies proving that knees implanted this way are as durable, cautions Dr. Clifford Colwell, president of the American Association for Hip and Knee Surgeons. Interested patients should question surgeons carefully about their experience.

The less-invasive operation is more difficult for surgeons, who train on cadavers, and takes about 30 minutes longer to complete, says Tria, who will teach the technique at this week's meeting of the American Academy of Orthopaedic Surgeons.

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EDITOR'S NOTE -- Lauran Neergaard covers health and medical issues for The Associated Press in Washington.

On the Net:

American Academy of Orthopaedic Surgeons: <http://www.aaos.org/>