

More 'height-challenged' men are getting leg-lengthening surgeries

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Some short men really struggle with their lack of height, feeling that

they are both literally and figuratively looked down upon by others.

That's why an increasing number of height-challenged men are turning to limb-lengthening surgery—an expensive, potentially painful, months-long procedure that will add a few extra inches to their frame.

Limb-lengthening procedures have been around for decades, and have been typically used to correct illnesses and [birth defects](#) that cause one leg to be shorter than the other, said [Dr. David Frumberg](#), co-director of the Yale Limb Restoration and Lengthening Program.

"You basically convince the body that there's a hairline fracture, and you allow the body to set up a healing response," Frumberg explained. "Then you gradually distract [separate] the [bone](#) ends apart and stretch the healing response over the desired length."

Alfonso Mascolo, 64, of Wolcott, Conn., underwent the procedure in February to have his [left leg](#) lengthened to match his right leg. Polio had caused his left leg to be shorter since he was 6 years old.

But new technology—in the form of a telescoping rod implanted inside the leg bone—has made it much easier to add inches to one or both of a person's legs, Frumberg said.

An orthopedic surgeon gently breaks a person's [leg bone](#) in a way that maintains blood supply, and then inserts the titanium rod inside the length of the bone.

"You can put a rod on the inside of the bone that has a motor in it that can be activated from outside the body," Frumberg explained. "It would be a telescoping nail that goes on the inside of the body where, with either [electric energy](#) through the skin or with a magnet that's held on top of the leg, you can activate the nail to become longer in a predictable

way."

Mascolo benefitted from this new technology, which is an alternative to the fixed frame attached outside the leg that had been the prior standard for limb-lengthening.

Three times a day, he would "apply this equipment that would make a screw inside the rod turn," Mascolo recalled. "It turned three times a day for a total of 1 millimeter per day, until you reach the 1 inch."

A growing trend

The relative ease of the procedure provided by these new rods have led men like John Lovedale of Harrisburg, Pa., to seek out the surgery specifically to add inches to his height.

Lovedale started out at 5-foot-8 and a half, but following the \$75,000 procedure he stood at 5-foot-11 and a half.

"People just look at you differently when you're tall. I already get a lot more looks at the gym," Lovedale, a man in his 40s, told [GQ](#) magazine.

Frumberg said more people, men in particular, are approaching him for such cosmetic height surgery.

"One can have dissatisfaction with their appearance in many different ways, and so it's not crazy that somebody would want to make themselves a little bit taller, especially if they have the means to do so," Frumberg said.

Insurance typically covers the procedure if it's meant to make one leg the same length as the other, Frumberg said. But if it's solely to make someone taller, the patient could typically face \$60,000 to \$90,000 in

out-of-pocket expenses.

The rule of thumb is that a bone can be extended by about 15% of its original length, Frumberg said.

The procedure must be done very, very gradually, so that regenerating bone fills in the tiny gap being created by the rod, said [Dr. Andy Sems](#), an [orthopedic surgeon](#) with the Mayo Clinic in Rochester, Minn.

"It's a very rate- and rhythm-dependent process, meaning that you have to go at a very specific rate so that the bone will form," Sems said. "As you continue to pull the bone's ends apart, the regenerate bone continues to form behind it to fill in the gap that's created."

"If you're doing, for example, a femur lengthening, you would cut the bone, you'd wait a week, let the healing response set up and then you'd stretch that healing response about a millimeter per day," Frumberg said. "One inch is 25 millimeters, so for 25 days you would just gradually lengthen the bone. Then you'd be at your target length and you wait around for it to heal, which would typically take twice as long."

Complications can occur

During the procedure, patients can't place any weight on the leg, Frumberg said. They have to get around using a walker or crutches.

Mascolo had his surgery on Feb. 9, and said, "for me, May 2 was when I had no more restriction on body weight."

The beauty of the procedure is that the bone that grows in is just as strong as what was there before, Frumberg said.

"That bone is exactly the same as the bone next to it because it was

always your bone," Frumberg said. "You grew it yourself. It looks exactly like the bone right next to it. The bone is just as strong as the adjacent bone."

However, limb-lengthening surgery is not without pain and peril, Frumberg warns.

"Lengthening the bones, fine. But you also have to lengthen the muscles, the tendons, the nerves, the blood vessels. They all have to slowly lengthen as well. And that's where you get into trouble. That's where the complication profile comes from," Frumberg said.

For example, if a leg-lengthening overextends the hamstring muscle, a person could wind up with a dislocated knee, Frumberg said.

The bone also could grow in wrong, if not tended to properly by trained professionals, Frumberg added.

"Last Friday, I saw a gentleman who had a lengthening done overseas and he has no bone in the gap," Frumberg said. "There's nothing there. He's got bones that were slowly stretched apart, but there is no bone in between. That's a big problem."

Even without serious complications, the procedure can involve some degree of pain.

Stretched muscles, tendons

"Some people really do have pain and it usually is muscle-related," Frumberg said. "Aside from the initial surgery where the bone is cut, the bone pain is not really what people complain about. It's usually the joints being stiff and the muscles being tight. And pain can definitely be significant, especially during the lengthening phase."

Patients need to undergo lots of physical therapy to make sure that their muscles and joints can accommodate their longer legs, Sems said.

"Stiffness of the joints around the area that are being lengthened is a very common complication that we have to manage and deal with," Sems said. "To prevent that, we have our patients work with frequent physical therapy sessions to maintain their motion around the joint."

As a last step, patients also must come back months after their bones have healed to have the rod surgically removed, Frumberg said.

Mascolo will return to the hospital in October to have the rod in his leg taken out, he said.

Despite all this, Mascolo is thrilled that he underwent the surgery. For years he struggled to walk with lifts in his left shoe, and in barefoot places like the beach he had to limp around.

"I am so happy. I can see myself walking on the beach like a regular person at 64. It's my dream come true," Mascolo said.

At the same time, he recommends that people getting height surgery consider the risks before proceeding.

"If you're gonna do this for a cosmetic reason and you really feel that it's going to make your life better, then God bless you," Mascolo said. "But you have to be certain this is something you really, really want, because it's not a light surgery. It's not like putting a bridge on your teeth or a root canal. It's much more intense than that."

Frumberg agreed, noting that he frequently sends patients to a mental health expert as part of a height surgery consult, to make sure they're approaching the procedure well-informed and with a level head.

"Every millimeter you put on, it just adds more risk," Frumberg said. "If someone wants to be 2 inches taller, that's probably achievable. But I want to make sure they understand the surgery can go south. You have a perfectly good, functional leg, and I could definitely ruin it."

More information: The Cleveland Clinic has more about [limb-lengthening surgery](#).

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