

What is Ablation?

Fitness has long been a part of Darrell Witt's life. He does push-ups and walks up to five miles a day at the convention center where he works. So, he was surprised eight years ago when he experienced dizziness and chest tightness while climbing stairs.

"At the time, I thought I was coming down with a chest cold, and so I went to my physician to complain of a chest cold coming on." –Darrell, Patient

Darrell was diagnosed with an abnormal heart rhythm known as atrial fibrillation, or A-fib.

"I did not know what it was. I had never heard of an A-fib." –Darrell, Patient

Atrial fibrillation results from chaotic electrical signals in the atria – or upper chambers – that cause the heart to beat out of rhythm. For years Darrell took medications to control the condition.

"As time progressed, we kept increasing the medications." –Darrell, Patient

But eventually, they stopped working. For people like Darrell, for whom medications are ineffective or not the best treatment, doctors may recommend a procedure called catheter ablation.

During an ablation, thin, flexible wires called catheters are inserted into a vein and guided to the heart to make scars in specific areas of the atria to block the electrical signals that are triggering the A-fib.

"We're going to let you sit down right here...."

Darrell is about to undergo the procedure, which typically lasts four to six hours or longer.

"Nice deep breath for me..."

In most cases the ablation is done under general anesthesia, which means the patient is not awake. The surgical team numbs the area where the catheters are threaded to the heart - typically, through the upper thigh or neck.

"What you can see is the heart with our catheters in it." – Josh Lovelock, MD, Cardiac Electrophysiologist

The team uses x-ray and other imaging devices to make sure the catheters are placed in the proper location.

"We now have special, we call them mapping systems, which allows us to recreate three dimensionally that part of the heart through somewhat like a GPS system, and then track our catheters in the heart."

- Josh Lovelock, MD, Cardiac Electrophysiologist

In some cases, a therapy called radiofrequency ablation is used, in which energy similar to a microwave destroys tiny areas of tissue.

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Another approach, known as cryoablation, freezes tissue causing the problem. That's the technique being used in Darrell's ablation.

"This is our balloon tipped catheter, this is what we'll use to do our freezing."

– Josh Lovelock, MD, Cardiac Electrophysiologist

Yet another type of ablation, called AV node ablation may be recommended to control heart rate, though it doesn't stop a-fib. In this procedure, an area of the heart called the atrioventricular – or AV – node is destroyed. This prevents electrical signals in the atria from reaching the heart's lower chambers, the ventricles. A pacemaker is then implanted to keep the heart beating regularly.

Though ablation is safe, there's a small risk of complications, including infection and damage to blood vessels.

"The real risk is the risk where we put those IV's in, so we ask them not to do any heavy lifting or squatting for about a week after the procedure to minimize any risk of bleeding."

– Josh Lovelock, MD, Cardiac Electrophysiologist

Following an ablation procedure, you will be taken to recovery to be monitored and asked to lie still for a few hours. Let your healthcare team know if you have any discomfort. Most people return home the same day or spend a night in the hospital. You may be prescribed medications to help keep your heart in normal rhythm ... and blood-thinning drugs to reduce your risk of stroke.

Darrell's ablation was a success and restored his heart to normal rhythm. He's now training for a mud run.

"A mud run is typically through the woods, through creeks, and it's typically a 5-k race. It's something that we love to do as a family together." – Darrell, Patient

And now that he's symptom-free, he's aiming high.

"By the time I reach 60 I want to set the national record for a mud run that is run nationwide."

– Darrell, Patient