



Radiofrequency Ablation

What is radiofrequency ablation?

Radiofrequency ablation is a nonsurgical procedure used to treat some types of rapid heart beating. It's most often used to treat supraventricular tachyarrhythmias. These are rapid, uncoordinated heartbeats. They start in the heart's upper chambers (atria) or middle region (AV node or the very beginning portion of the heart's electrical system).

How is radiofrequency ablation done?

A physician guides a catheter with an electrode at its tip to the area of heart muscle where there's an accessory (extra) pathway. The catheter is guided with real-time, moving X-rays (fluoroscopy) displayed on a video screen. The procedure helps the doctor place the catheter at the exact site inside the heart where cells give off the electrical signals that stimulate the abnormal heart rhythm. Then a mild, painless radiofrequency energy (similar to microwave heat) is transmitted to the pathway. This destroys carefully selected heart muscle cells in a very small area (about 1/5 of an inch). That stops the area from conducting the extra impulses that caused the rapid heartbeats.

How common is this procedure?

Radiofrequency ablation is widely used. It's the preferred treatment for many types of rapid heartbeats. It has a success rate of over 90 percent and a low risk of complications. Patients who have this done can resume normal activities in a few days. It causes little or no discomfort and is done under mild sedation with local anesthesia.

See the Related Items box above for links to the **Cardiology Patient Page** in *Circulation*, *Journal of the American Heart Association*:

- Catheter Ablation of Arrhythmias
- Supraventricular Tachycardia

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