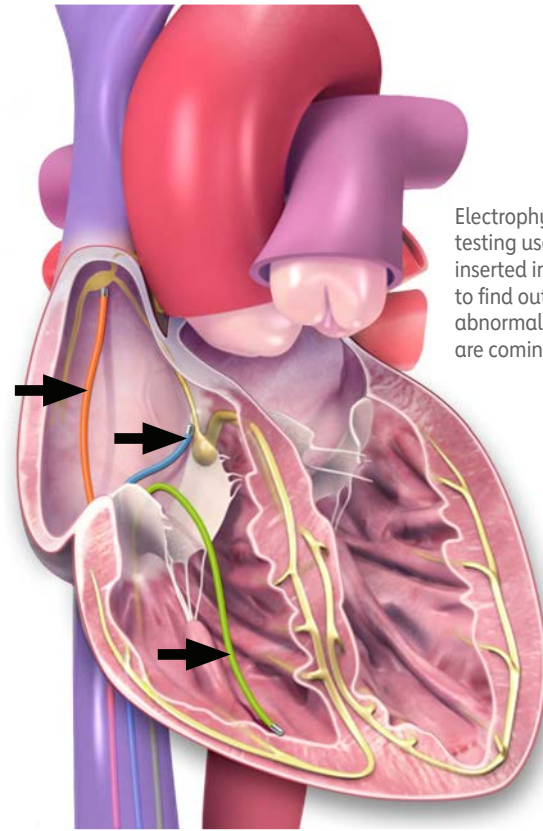




## What Are Electrophysiology Studies?

Electrophysiology (EP) studies are tests done to find out why your heart isn't beating in a regular way. These tests study the electrical activity in your heart. They are also called cardiac mapping.

The results can help your health care team find where an arrhythmia (abnormal heartbeat) is coming from and determine the best treatment for you. Treatments may be medication, cardioversion, a pacemaker, an implantable cardioverter defibrillator (ICD), cardiac ablation or surgery. If you're on medication, the test will show if it's working to prevent your abnormal heartbeats.



Electrophysiologic testing uses catheters inserted into the heart to find out where abnormal heartbeats are coming from.

### What is an arrhythmia?

An arrhythmia refers to any problem in the rate and/or rhythm of a person's heartbeat. Changes in heart tissue and activity, or in the heart's electrical impulses, may cause the heartbeat to be too fast, too slow or erratic.

With an abnormal heart rhythm:

- Your body may not get the blood it needs.
- Your heart may feel like it flutters.
- You may get dizzy or faint.

### How do I prepare for an EP study?

- Don't eat or drink anything for 6 to 8 hours before the test.
- Tell your health care team about any medications you take, including over-the-counter medications, herbs and vitamins. You may be asked not to take them before the test.
- Have someone drive you to your appointment and take you home.

### What happens during the test?

Doctors and nurses do these tests at a hospital or clinic with special equipment in a room called the electrophysiology lab, or EP lab. Sometimes, it's also called the catheterization lab (cath lab). The test may take 1 to 4 hours.

During the test:

- You'll be awake, but you might be given medication to help you relax.
- You will lie on a table near an X-ray camera and other equipment.
- Your doctor will numb certain areas on your groin, neck or arm. Then, they will insert thin tubes, or catheters, into your veins in those areas.
- The doctor will thread the catheters through your vein to your heart.
- Small electric pulses will be sent through the catheters to make your heart beat at different speeds. You may feel your heart beat stronger or faster.

(continued)



## What Are Electrophysiology Studies?

- The catheters record the electrical activity in your heart. This allows your doctor to locate the problem area in your heart.

If the type and location of the abnormal heart rhythm is found and the treatment decided, cardiac ablation or insertion of a pacemaker or ICD may be done during or right after the EP study.

### What is cardiac ablation?

- Cardiac ablation is a way to fix an abnormal heart rhythm and get your heart to beat normally.
- It may take longer than the EP study.
- One or more catheters are put in one or more veins.
- Your doctor will make the catheter tip very hot or very cold, and touch it to a small part of the problem area of your heart muscle.
- This kills the heart muscle cells causing your abnormal rhythm.
- When the cells die, your heart can return to a normal rhythm.

### What happens after the EP study?

- The catheters and IV will be taken out.
- A nurse or doctor will apply direct pressure to the punctured sites to make sure there's no bleeding.
- You'll be moved to a recovery room and asked to lie quietly on your back for a few hours. Your heart rhythm will be monitored during this time.
- You may stay in the hospital overnight for continued monitoring.
- Your doctor will talk to you about your test results, treatment options and plans for monitoring your heart after you leave the hospital.
- You can likely resume normal activities in a few days.
- You may feel tired or achy for a couple of days.

## HOW CAN I LEARN MORE?

- 1 Call 1-800-AHA-USA1 (1-800-242-8721) or visit [heart.org](https://heart.org) to learn more about heart disease and stroke.
- 2 Sign up for our monthly *Heart Insight* e-news for heart patients and their families at [HeartInsight.org](https://HeartInsight.org).
- 3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at [SupportNetwork.heart.org](https://SupportNetwork.heart.org).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down questions for the next time you see your health care professional.

For example:

**Do I need more tests?**

**Is cardiac ablation a cure?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk of heart disease, manage your condition or care for a loved one. Visit [heart.org/AnswersByHeart](https://heart.org/AnswersByHeart) to learn more.