What are Electrophysiologic Tests?

Electrophysiologic tests are done to find out why your heart is not beating in a regular way. These tests study the electrical flow in your heart.

The results can help your doctor find where an arrhythmia (abnormal heartbeat) is coming from and determine the best treatment for you. Treatments may be medication, a pacemaker, an implantable cardioverter defibrillator (ICD), cardiac ablation or surgery. If you’re on medicine, the test will show if it is working to prevent arrhythmias abnormal heart rhythms.

What is arrhythmia?
- Your heartbeats are abnormal – too fast, too slow or irregular.
- Your body may not get the blood it needs.
- Your heart may feel like it flutters.
- You may get dizzy or faint.

What is cardiac mapping?
- It’s an electrophysiologic test that “maps” the electrical system of your heart.
- It tells your doctor what part of the heart the abnormal heartbeats are coming from.

How is it done?
At a hospital or clinic, doctors and nurses do these tests in a room that has special equipment for the tests. You may hear this room called the electrophysiology laboratory, or EP lab. Some call it the catheterization laboratory (cath lab).

- You’ll be awake during the test but may be given medicine to help you relax.
- The test may take several hours.
- You lie on a table near an X-ray camera and other equipment.
- Your doctor numbs a spot on your groin or arm and inserts thin tubes, or catheters, into veins.
- The doctor moves the catheters to find the problem area in your heart.
- The tips of the catheters are like sensors and can tell the doctor why the heart isn’t beating with the right rhythm.

What is cardiac ablation?
- Cardiac ablation is a way to fix an arrhythmia and get your heart to beat the right way.
- It takes longer than cardiac mapping.
• One or more catheters are put in one or more veins.
• On the end of the catheter is a tip that will transmit painless energy.
• This will cause the heart muscle cells in a very small area (about 1/5 of an inch) to die.
• When the cells die, the abnormal rhythm will stop, so your heart can return to a normal rhythm.

**What happens afterwards?**
• The catheters will be taken out.
• A nurse or doctor will apply direct pressure to the punctured spots for 15 minutes or longer to make sure there’s no bleeding.
• You’ll be asked to lie quietly on your back for several hours.
• Your doctor will talk to you about the results and plans for monitoring your heart after you leave the hospital.
• You may stay in the hospital overnight.
• You can resume normal activities in a few days.

**Do you have questions for the doctor or nurse?**
Take a few minutes to write your questions for the next time you see your healthcare provider.

For example:

**Do I have to take more tests?**
**Is cardiac ablation a cure?**

**How can I learn more?**
1. Call 1-800-AHA-USA1 (1-800-242-8721), or visit heart.org to learn more about heart disease and stroke.
2. Sign up to get Heart Insight, a free magazine for heart patients and their families, at heartinsight.org.
3. Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at heart.org/supportnetwork.

We have many other fact sheets to help you make healthier choices to reduce your risk, manage disease or care for a loved one. Visit heart.org/answersbyheart to learn more.