

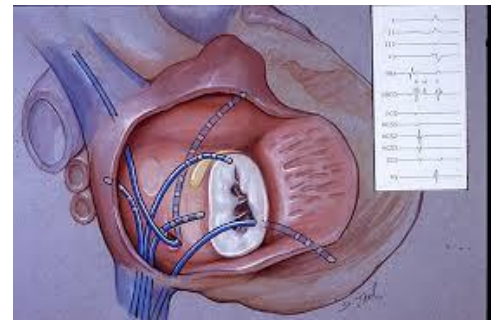


ELECTROPHYSIOLOGY (EP) STUDY



Several tests are performed in a special lab in the hospital that can take several hours. These tests help pinpoint the location, the type of arrhythmia, and how the arrhythmia responds to treatment. During an EP study, the patient is sedated, and small catheters are guided to the heart. The heart's rhythm is recorded as small amounts of electricity are delivered through the catheter. This internal recording is often compared with an external recording (from electrodes placed on the patient's chest and back) taken at the same time.

This test (EP Study) will be used by your electrophysiologist to study your heart's electrical function and locate sites inside your heart that may be causing abnormal heart rhythms. It will be performed in a special lab by your electrophysiologist working with a team of highly-skilled nurses and technicians.



PREPARATION FOR ELECTROPHYSIOLOGY STUDY

At your initial visit, we will explain the procedure, its purpose, benefits, and potential risks. EP Studies are common, low-risk procedures. However, because they involve going inside the body, there are some risks such as bleeding, swelling, or bruising at the catheter site, damage to the heart or blood vessels, blood clot, or infection. This is a good time to discuss all your concerns and ask any questions you may have. We will also talk with you about any prescription and over-the-counter medications you may be taking and give you any special instructions concerning taking these before the test. Generally, you will be asked not to eat or drink past midnight on the evening of your test, except for sips of water to swallow your pills.

On the day of your procedure, you will have an electrocardiogram (ECG) and blood tests. You'll be asked to sign a consent form for the procedure. Just before the EP Study begins, an intravenous (IV) line will be inserted in your arm to administer medications. One of these will be a sedative to help you



relax. A catheter (a small plastic tube) will be inserted in your groin, so your groin will be shaved and cleaned to make it easier to insert the catheters and to avoid infection.

THE PROCEDURE

To help make you more comfortable during the procedure, a local anesthetic will be injected into your skin with a tiny needle. One or more catheters, some as thin as spaghetti, will be inserted into your vein and carefully threaded to your heart. Although you may be awake during your study, you won't feel the catheters moving through the blood vessels. Your care team will be watching a variety of monitors — EKG screens, x-ray machines, and other equipment — to make certain the catheters are positioned exactly where intended. They will also monitor and record such information as your heart rate, blood pressure, and oxygen level.

In order to measure electrical activity of your heart, your electrophysiologist will send a series of controlled impulses through the catheter to your heart. This stimulation may induce the abnormal heart rhythm that has caused your symptoms in the past. The rhythm can then be studied, recorded, and evaluated. You may be administered medications to help induce your arrhythmia. Be sure to let the staff know if you feel any lightheadedness, palpitations, chest pain, or shortness of breath.

When an abnormal heart rhythm that has been induced in the lab does not stop by itself and persists, an additional symptom that may be experienced is feeling faint. When this occurs, you will be treated by the staff to restore a normal rhythm and this feeling will subside.

This testing process usually lasts 45 minutes to one hour. If abnormal rhythms are identified, your physician may decide to proceed with an ablation procedure to fix the problem or decide to implant a device like a pacemaker or defibrillator.

RECOVERY

After the study is over, the catheters will be removed, and pressure will be applied to your groin to prevent bleeding. You'll be taken back to your room or a recovery area and monitored for 2-3 hours where you will need to lie flat.

Although you'll be given something to eat and drink, it's important to keep your head on your pillow and your legs straight. Be sure to tell your nurse immediately if you feel any warmth, pain, or swelling at the catheter insertion site. Your friends and family can be with you as you rest during recovery. As you are resting during recovery, the electrophysiologist may discuss some of the test findings with you. If you may be discharged following the recovery period, plan to have someone drive you home.



A R I Z O N A
HEART RHYTHM
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LEADING PROVIDER OF ARRHYTHMIA CARE

Vijendra Swarup, MD, FACC, FHRS

Robert Lemery, MD, MS, FACC, FHRS

TREATMENT

The treatment of your abnormal heart rhythm is determined by the results of your EP Study. Some abnormal heart rhythms are controlled with medication(s), some may require devices (pacemakers and implantable defibrillators), while others are curable with an ablation (electrical energy to damage the problem area) procedure. Remember to follow your instructions and report any symptoms or side effects from your medications.

HEALTH MAINTENANCE

Regardless of the results of your study and the course of treatment your physician recommends, you play an important role in staying healthy. Be sure to keep all appointments for exams and follow-up tests. Follow your instructions, don't hesitate to talk about your concerns, and immediately report any new symptoms.

As always, if you have any questions about your health, be sure to ask your physician or call our office at (602) 456 2342