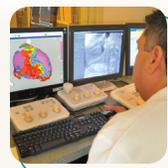


Electrophysiology [EP] Study



Electrophysiology [EP] Study-
Typically for extensive evaluation of patients with symptoms of arrhythmia, or for people at-risk for sudden cardiac death.

What is an electrophysiology study?

Normally, the top chambers of the heart – the atria – and the bottom chambers – the ventricles – work together, alternately contracting and relaxing to pump blood through the heart and into the body. Electricity flowing through the heart causes the contractions; every electric impulse causes your heart to beat.

A problem anywhere along the electric pathway of the heart can cause an arrhythmia, or heart rhythm disturbance. An electrophysiology, or EP, study is a recording of your heart's electrical activity, a test to determine the exact cause of your arrhythmia and the best solution for it.

What does it treat?

- An EP study is typically recommended for patients with symptoms of arrhythmia or for people at-risk for sudden cardiac death.

Facts about electrophysiology studies

- An EP study is more invasive than an electrocardiogram or echocardiogram, and involves provoking arrhythmias within a safe environment.
- An EP study lets your doctor diagnose the source of your arrhythmia, gauge how effective particular medications will be in controlling it, predict the risk of a future cardiac event, and decide whether you require another treatment procedure.
- An EP study is a non-surgical procedure, but is still performed in a hospital with the patient sedated.
- An EP study typically takes between two and four hours, but can take longer if the doctor decides an additional procedure — like performing a cardiac ablation or implanting a pacemaker — is appropriate.
- As with any procedure, there are risks. Of course, every precaution is taken to reduce risks. Your doctor will talk with you about the potential risks of the procedure.
- Your doctor or Nurse Navigator/educator will provide you with detailed directions about how to prepare for your EP study in terms of your medications, diet, etc.

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What happens during the procedure?

- You will be lying down, and a nurse will hook you up to an IV, which will deliver fluids and a sedative.
- Two types of sticky patches will be put on your chest, and one onto your back.
- During the procedure, you will be monitored on a defibrillator/pacemaker for heart rate information, an electrocardiogram for electrical impulse information, a blood pressure monitor (attached to your arm as a cuff) and a blood oxygen monitor (attached to your fingertip with a clip).
- The doctor will numb either your groin or neck, and insert catheters – thin, flexible wires – into a blood vessel at the selected site, winding the wire through the blood vessel into your heart.
- Electrodes at the tips of the catheters gather data pinpointing the location of the origin of your arrhythmia.
- Once the faulty site is confirmed, the doctor will send small electrical impulses through the catheters to your heart to purposely raise your heart rate and try to safely reproduce your arrhythmia. If necessary, the doctor can send small amounts of energy via the patches on your chest to return your heart to its regular rhythm.
- The doctor might give you medications through your IV to see what works best to control your arrhythmia.

What will you feel?

- You might feel a slight burning sensation at the catheter entry point when medication is injected into it.
- You might feel some discomfort when energy is run through the catheters.
- You might feel your heart beat faster or harder during the procedure.
- You might feel fatigue or chest discomfort for the first 48 hours following the procedure. If discomfort persists or becomes severe, call your doctor.

What happens afterward?

- Immediately following your EP study, you will remain still for four to six hours to ensure the catheter entry incision begins to heal.
 - No stitches are necessary; just keep your incision area clean and dry.
 - Once you're fully awake, your doctor will talk with you and your loved ones about the procedure and its results.
 - Your doctor will also discuss your individualized treatment options, which might include medications, devices like a pacemaker, procedures like cardiac ablation, or no treatment for now.
 - Your doctor will use your results to decide whether you can go home, or you should stay at the hospital.
 - Arrange for a ride to and from the hospital, and for help at home following the procedure.
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