

About EP Testing

EP tests are used to diagnose arrhythmias, or to determine the exact cause of and plan treatment for an already-identified arrhythmia.

The four chambers of the heart are connected by an intricate electrical system that controls the rate and rhythm of the heartbeat. EP testing examines this function from inside the heart itself using small catheters. It is also referred to as Electrophysiology Study, or EPS.

During an EP test, physicians can monitor the heart's electrical function or stimulate the heart with electricity in order to produce and observe the effects of an arrhythmia and map the site it comes from.

What to Expect

The site where the catheters will be inserted is cleaned, shaved, and numbed with a local anesthetic. Other than a sedative, patients having an EP study do not receive anesthetics because they can alter how the heart functions.

EP tests are typically performed with the patient lying flat on a table with an x-ray machine above or on the side. During the test, electrocardiogram electrodes are placed on the patient's chest and a blood pressure cuff is placed on the patient's arm.

To perform the test, the physician threads catheters into and through the blood vessels and to the heart. Electrodes on the tip of each catheter pick up electrical activity from the heart tissue and send information to a computer. The electrodes on the tip of the catheter can also be used to send electrical signals to the heart. Called pacing, this allows the physician to induce and observe an arrhythmia.

An EP test will generally take 1 - 2 hours and the patient usually is asked to remain lying down for several hours. When the test is complete, the catheters are withdrawn, pressure is applied to the insertion point to control bleeding, and the patient usually is asked to remain lying down for 2 to 3 hours. Within 8 hours, most people can resume normal activity.

Post Test Guidelines

The results of an EP study can be used to prescribe or adjust antiarrhythmic medication or the need for a pacemaker or an implantable cardiac defibrillator may be indicated. Heart surgery may also follow EP testing.

For arrhythmias that do not endanger normal heart function, no further treatment may be indicated.



Possible Complications

Complications from EP testing are usually minimal. Very rarely, during EP tests during which physicians induce arrhythmias, some individuals experience serious rhythm abnormalities, including ventricular fibrillation. The EP laboratory is equipped with a defibrillator, which delivers an electrical shock that restores normal heart rhythm.

A Valuable Diagnostic Tool

Cardiology Consultants of Westchester, P.C. is dedicated to providing area residents with world class cardiac care right in our neighborhood. Providing expertise in Electrophysiology is just one more example of our dedication to providing the best medical care possible to you and your family.

Cardiology Consultants of Westchester together with Vascular Associates of Westchester and Primary Care & Cardiovascular Associates, is dedicated to improving the health of our patients by providing the highest quality cardiovascular care in a comfortable, compassionate environment. In addition, we are committed to contributing to the advancement of knowledge in the community through ongoing education and scientific inquiry.

