

Danbury Hospital Patient Education Sheet

What is an EP Study?

What is an Electrophysiology Study and why is this test ordered?

Your doctor may think your heart has an arrhythmia: a problem with the speed or rhythm of the heartbeat. During an arrhythmia, the heart can beat too slow, too fast or with an irregular rhythm. An electrophysiologic, or EP study provides information that is key to finding and treating an arrhythmia, or abnormal heartbeat.

A normal heartbeat happens when an electrical current or signal travels on a specific pathway through the heart. If the pathway is blocked or delayed, an abnormal heartbeat, or arrhythmia can result. Some hearts can have an extra electrical pathway that can interfere with the normal pathway and create an arrhythmia. The EP study is used to assess serious arrhythmias.

Many arrhythmias cause no signs or symptoms. This study might be ordered for you if you have been experiencing symptoms such as:

- Palpitations (a feeling that your heart has skipped a beat or is beating too hard.)
- A slow heartbeat
- A fast heartbeat
- Feeling of pauses between heartbeats
- Dizziness and light-headedness
- Fainting or nearly fainting
- Shortness of breath
- Chest pain

How long will this test take?

The time you spend in the lab can range from 2-4 hours. However, pre-procedure set up and post procedure care add more time.

Is there any special preparation prior to the procedure?

- ✓ If you are having this test done as an outpatient, you must arrange to have someone drive you home.
- ✓ Your cardiologist will order an electrocardiogram (ECG), a test to show the pattern of electrical activity through the heart. A device called a Holter Monitor may also be ordered. This device records heartbeats for 24 hours.
- ✓ Your cardiologist may order labwork prior to the procedure.
- ✓ If you are a diabetic or on coumadin, you may need to adjust your medication dosage before your study. Contact your cardiologist.
- ✓ Do not eat or drink 6-8 hours before the procedure. Take all of your regular medications before your study unless directed otherwise by your doctor.
- ✓ Bring a current list of your medications with you. Wear comfortable clothing that is easy to change in and out of. Leave valuables at home such as jewelry, money, checkbook and credit cards.

What can I expect on the day of the procedure?

- Once you have arrived at the Patient Care Area, a nurse will greet you and escort you to your room. You will be asked to change into a hospital gown.
- Your private room will have a small television and a telephone.
- The nurse will obtain your height and weight, ask you about any allergies you may have, and ask you for a list of your current medications.
- You will be asked to empty your bladder.
- You will be connected to monitoring equipment including a blood pressure cuff, a finger clip to

monitor your blood oxygen level and a heart monitor.

- An intravenous line will be started.
- The area where the catheters are to be inserted will be shaved. This is most commonly the groin.
- A Nurse Practitioner or Electrophysiologist will obtain a medical history.
- You will meet the performing Electrophysiologist and discuss informed consent.
- Once you and the team are ready and consent is signed, you will be brought to the lab on your stretcher.
- The staff will assist you onto the procedural table. You will need to lay flat, with 1-2 pillows under your head.
- The room may feel cool and you will see a lot of equipment including the x-ray tube, computer monitors and a sterile table.
- You will be connected to monitoring equipment for the study: blood pressure cuff, finger probe and heart monitor. 2-4 postcard sized sticky pads will be placed on your skin.
- The staff will introduce themselves. There will be a Circulating Nurse whose job is to take care of you during the procedure. The Doctor will be in a sterile gown, gloves and mask. Two or three additional people will be in the room putting information into computers.
- Your gown will be removed (the metal snaps interfere with the picture). If you desire, warm blankets will be placed over you. Your privacy is important to us and you will not be exposed. A sterile drape will be placed over you.
- Most procedures are done with light sedation. It is important that you are able to talk to your nurse, and on occasion answer questions the Doctor may ask.
- At the start of the procedure, the skin in the area of the insertion site is numbed. An introducer sheath (a special tube) is inserted into a site in the groin. The sheath remains in place during the entire procedure.
- Different catheters will be placed through the introducer sheath and threaded to the heart. You will not feel the passage of these catheters. You may feel a sensation of pressure at the sheath insertion site.
- Special electrodes at the tip of the catheters gather data from inside the heart to help locate the cause of the arrhythmia.
- During the study, the heart may be stimulated to beat at different rates. You may feel your heart beat faster, or it may even go into your abnormal rhythm. If an abnormal heartbeat does occur, the rhythm can be regulated back to normal.
- The doctor may give you a medicine during the test, and monitor your response to the medicine.
- Your doctor will discuss the results of the EP study with you and describe treatment options. These may include medication, implantable device, catheter ablation, or surgery.
- When the EP study is complete, the catheters are removed. Pressure is applied to the insertion site (s) for 10-20 minutes.

What do I expect after my procedure?

At the conclusion of the test, the Doctor will go over the results with you. You will spend between 2-6 hours on bedrest after your procedure. The nurses in the Patient Care Area will review post procedure care with you. You will have a signed copy of directions to follow upon discharge.

Directions to Danbury Hospital

Follow directions to the BLUE parking lot and park in the Purple Section. Enter the main lobby on the fifth floor. Take the Tower elevator to the 7th floor. Once off the elevator, take 2 left turns and proceed straight into the Patient Care Area.

If you have further questions, call your cardiologist or Danbury Hospital Invasive Cardiology at 739-7436.

Source:

American College of Cardiology @ www.cariosmart.org

Heart Rhythm Society @ hrsonline.org

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For more information, or to learn about the specialized services and programs available at Danbury Hospital, please visit www.DanburyHospital.org