

Electrophysiology (EP) Study with Ablation

An **electrophysiology (EP) study** is a cardiac catheterization which checks the electrical system of the heart. The EP study can help tell us the cause of palpitations, abnormal heart rhythms or fainting. It can also check patients for any life-threatening heart rhythms (arrhythmias).

An **ablation** is a procedure that treats the abnormal heart rhythm. It can be done at the same time as an EP study. There are two methods for ablation.

1. Burning (radiofrequency energy)
2. Freezing (cryotherapy)

For certain patients, freezing therapy may be safer than heat.

Getting Ready for an EP Study

Before the EP study, your child should:

- Stop eating and drinking for 6 to 8 hours before the study.
- Stop taking heart medicine a few days before the study.
- Come prepared to stay the night after the study, if needed (though, most patients will be able to go home the same day).
- Follow the prep instructions from the doctor or nurse.

EP Study

An EP study is an outpatient procedure. It can last 2-5 hours or longer. Your child will likely receive general anesthesia and will be “asleep” during the study.

Once asleep, the doctor will advance catheters (long flexible wires) through veins into the heart. They often pass through the femoral veins near the crease between the leg and pelvic area.

Once in the heart, the catheters record the heart’s electrical signals. The catheters can also pace the heart to cause the heart to beat faster and to find abnormal heart rhythms.

After the doctor treats (ablates) the arrhythmia, the doctor will retest the heart to look for other abnormal heart rhythms. After repeat testing, the doctor will remove the catheters from the body. Your child will not need stitches.

3-D Mapping

While many EP studies are done using radiation, we use 3-D mapping equipment. 3-D mapping will map the normal and abnormal tissue in the heart. This method avoids exposing your child to radiation.

Recovery

After the EP study, your child:

- Should lie flat in bed for 4-6 hours to decrease the risk of bleeding.
- Can eat and drink shortly after, starting slowly at first.
- May be sent home after 4-6 hours if there are no concerns. If the discharge would be late in the evening, your child may need to stay the night.
- Can slowly return to their normal routine over the next 5 days.
- May have mild pain at the catheter site, often like a bruise.

Risks

EP studies are safe and work well, but there are risks with any procedure. For details about the risks, please talk to your doctor.

Risks may include:

- Bleeding from the catheter site.
- Return of arrhythmia.

Who to Call

Pediatric Cardiology Clinic

(608) 263-6420 option “2”

uwhealthkids.org/hearts

After hours and weekends ask for the pediatric electrophysiologist on call.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 9/2021 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8217.