



Electrophysiology Study and Catheter Ablation

This sheet describes an electrophysiology study with catheter ablation. It explains why your child may need this procedure and how it's done.

Key points

- An electrophysiology (EP) study is a test that is done when a child's heart has an electrical abnormality (or beats in a rhythm that is not normal).
- An ablation is a procedure done at the time of an EP study to treat the electrical abnormality.
- Most children go home the same day after the EP study and ablation procedure.

What is an electrophysiology study?

- An EP study is a test that is done if your child has (or thought to have) a heart rhythm abnormality (a rhythm that is not normal).
- We do the EP study to find out what kind of abnormality it is and to see where in the heart it's happening.

What is an ablation procedure?

- An ablation is a procedure that can be done at the time of an EP study to treat the abnormality.
- The doctor puts a thin, bendable tube in the heart and either burns or freezes the abnormal connection so it can't cause the heart rhythm issues anymore.

What kinds of conditions are treated with ablations?

- Supraventricular tachycardia (SVT)
- AV nodal reentrant tachycardia (AVNRT)
- Wolff-Parkinson White (WPW) Syndrome and accessory pathways
- Ectopic atrial tachycardia (EAT)
- Ventricular premature beats
- Ventricular tachycardia
- Atrial flutter/atrial fibrillation

How is an EP study with ablation done?

- We usually give your child general anesthesia or deep sedation so they can sleep during the study.
- Once your child is asleep, the doctor inserts long, thin tubes (called a catheter) into the large blood vessels in the groin or neck. The tubes go into the heart (see Figure 1.)
- The doctor can use one of the tubes to heat or freeze the tissue to stop the heart problem.

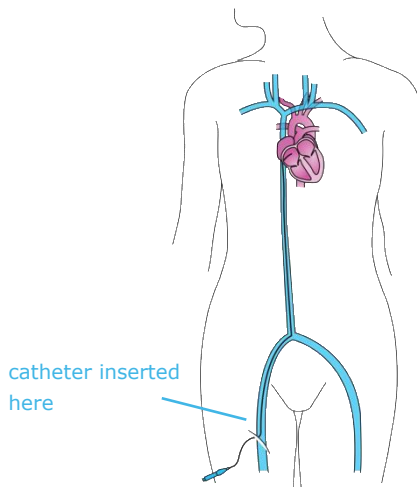


Figure 1.

How do I get my child ready for the procedure?

- You'll meet with your child's doctor in the preoperative clinic the day before to talk about what will happen during the procedure. You can ask any questions you may have about the plan.
- Your child will have some testing and blood work at this visit. This includes an electrocardiogram and/or echocardiogram if your child's doctor wants them done.
- You'll get instructions telling you how to prepare your child and where to go for the procedure. Your child will need to stop eating before the procedure and may need to stop some medications.

How long will my child be in the hospital after the procedure?

Most children can go home the same day, about 4-6 hours after the procedure. Some children need to be monitored overnight and go home the next day.

What's the recovery time?

- Your child will lie flat for 4-6 hours after the procedure is over. This is to let their blood vessels heal.
- Your child should rest and not do any strenuous physical activity (no sports or running) for 2-3 days after the procedure.
- Your child can usually go back to normal physical activities in 5-7 days. Please talk to your child's doctor about this.

Call 911 or your local emergency services number if your child needs help right away.

Contact us

- **For routine calls Monday-Friday, 7 a.m. – 7 p.m.:**
Call the Cardiac Procedural Recovery room at 617-355-6189.
- **For urgent calls after hours, on holidays and weekends:** Call Boston Children's page operator at 617-355-6369 and ask to page the Electrophysiology (EP)-doctor-on-call at pager #3737.