

# Electrophysiology Study and Radiofrequency Ablation

## What is an Electrophysiology Study with Radiofrequency Ablation?

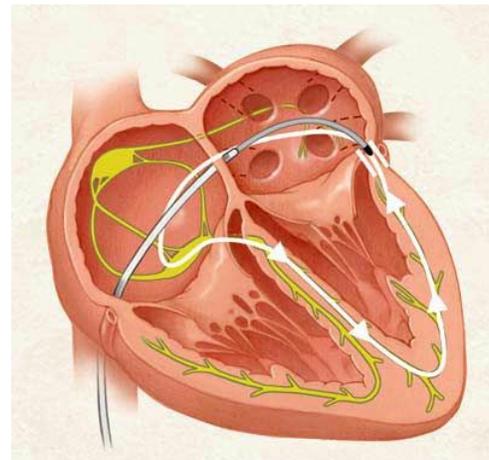
An electrophysiology study is a procedure used to evaluate abnormal heartbeats. During the procedure Dr. Ben-Zur uses a special type of cardiac catheter to inspect the electrical activity of the heart and assess heart rhythm, rate and type of heart beat. Radiofrequency ablation is performed for many different types of heart arrhythmias such as atrioventricular reentrant tachycardia (AVRT) or AV nodal reentrant tachycardia (AVNRT), atrial flutter, atrial fibrillation, and Wolff-Parkinson-White syndrome. The radiofrequency ablation procedure blocks the electrical signals traveling through your heart to stop the abnormal rhythm and allow signals to travel over a normal pathway instead.

## When does a patient need this procedure?

Electrophysiology study and radiofrequency ablation will be considered if you have a persistent symptomatic arrhythmia that is refractory to medications and direct current cardioversion. Dr. Ben-Zur will determine the need for this procedure based on your symptoms, results of diagnostics and current medical condition.

## How are electrophysiology study and radiofrequency ablation procedures done?<sup>1</sup>

Before your procedure begins a specialist will insert an intravenous line into your forearm or hand, and you will be given a sedative to help you relax. After your sedative takes effect, Dr. Ben-Zur will numb a small area near a vein on your groin. A needle will be inserted into the vein with a tube (sheath) placed through the needle. Catheters will be threaded through the sheath and to the heart. Dye may be injected through the catheter to visualize blood vessels and heart via x-ray imaging. The catheters have electrodes at the tips that will be used during the procedure. Once in place, the electrodes will send electrical impulses to your heart and record your heart's electrical activity. This will help detect the abnormal heart tissue that is causing the arrhythmia in your heart. Once the abnormal heart tissue causing the arrhythmia is identified, heat energy is applied at the catheter tip that alters the tissue triggering your arrhythmia.



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Cardiac ablation usually takes 2-4 hours to complete, but complicated procedures may take longer. During the procedure, it's possible you'll feel some minor discomfort when energy is run through the catheter tips. If you experience any type of severe pain or shortness of breath, you should alert the medical team.

## Sources:

1. <http://www.mayoclinic.org/tests-procedures/cardiac-ablation/basics/what-you-can-expect/prc-20022642>

**What to expect before the procedure:**

Before the procedure you will have a pre-procedure appointment. This will include obtaining labs and any necessary imaging as well as any medication adjustments that need to be made for the procedure. This is an additional opportunity to ask any questions that you may have.

**How long will the procedures take?**

An electrophysiology study and ablation usually take 2-4 hours.

**On the day of the procedure:**

- Do not eat or drink anything after midnight the night before the exam.
- Do not ingest any stimulants for 24 hours BEFORE the test. This includes coffee, tea, and cola drinks.
- Wear loose fitting, comfortable clothing.
- Do not wear necklaces or clothing with metal on it (metal buttons, sequins, brooches, etc.).
- If you have asthma presently or previously, bring your inhaler(s) with you.
- Bring a list of your medications with you.
- Take your usual morning medications with sips of water on the day of your test unless directed by Dr. Ben-Zur.
- Notify Dr. Ben-Zur if you take insulin or diabetic medication as these medications may need to be discontinued or decreased the morning of the procedure.

**What are possible complications?**

With any procedure there is always a risk of complications. Electrophysiology studies and radiofrequency ablations are common medical procedures. Serious complications are uncommon but may occur. If Dr. Ben-Zur determines that you are a candidate for electrophysiology study and radiofrequency ablation, he will have a long discussion with you regarding the risks, benefits, and alternatives of the procedure, including but not limited to: infection, bleeding, heart attack, stroke, death, neurologic deficit, nerve injury, lymphatic injury, venous thrombosis, pericardial effusion (blood around the heart), pleural effusion (blood around the lungs), pulmonary embolism, hematoma, pain, need for an emergent operation such as emergency coronary artery bypass grafting, possible blood transfusion and its complications, complications associated with anesthesia, drug allergies, vascular perforation, dissection, rupture, thrombosis, distal embolization, arrhythmia (irregular heartbeat) that may require a pacemaker to correct, renal insufficiency/failure, dialysis dependence, limb loss, dye allergy, discomfort and bleeding at the catheter insertion site, and radiation exposure. Your risk of having these complications may increase if you have diabetes or kidney disease.

**Wound site care:**

- No stitches are needed.
- You will have a small sterile dressing on your wound. It may be removed the next day.
- Keep the area clean and dry.

**Need more information?**

We encourage you to ask Dr. Ben-Zur any questions and discuss concerns you have at anytime. Visit our website at [www.DrBenZur.com](http://www.DrBenZur.com), give us a call at (818) 986-0911, or email us at [ubenzurmd@gmail.com](mailto:ubenzurmd@gmail.com). You may also call Dr. Ben-Zur after hours if you have any additional questions that you did not have a chance to ask during your visit.