

# Cardiac Procedures Patient Guide

PREPARING FOR YOUR UPCOMING PROCEDURE AND CARE AFTERWARDS



THE DRIVE IS *here*.<sup>®</sup>

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This guide was designed to introduce you to cardiac procedures recommended by your doctor in order to get more information about your heart. The staff at Bayhealth wants to help you better understand and prepare for your upcoming procedure and know what to expect during and after. It is important to read this guide thoroughly and follow the pre-procedure and after care instructions. Please do not hesitate to ask any questions that you may have.

## Here are the details of your scheduled procedure:

Cardiac catheterization

Electrophysiology study

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PROCEDURE DATE

PROCEDURE TIME

ARRIVAL TIME

Check in location:

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Name of family member/friend accompanying you day of procedure, driving you home and staying with you for 24 hours:

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If you have any questions, please contact your doctor's office at:

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## How the heart works

Knowing the basics about the heart and how it works will help you in understanding the procedure you will be having. The heart is a muscle that pumps blood to all parts of the body, carrying oxygen and nutrients the body needs. It may be helpful to picture your heart like a house. Together this network makes up your cardiovascular (or circulatory) system. The heart has:

- *Four rooms: chambers*
- *Plumbing: blood vessels carry blood into the heart (veins) and away from the heart (arteries)*
- *Wiring and electricity: heart's electrical system controls heartbeat and its rhythm*
- *Four doors: valves which allow blood to flow from one chamber of your heart to another*

## What are cardiac procedures?

Cardiac procedures are used to diagnose and treat certain cardiovascular conditions. These are performed in one of the Cardiovascular and Electrophysiology Labs at Bayhealth Hospital, Kent Campus or the Interventional Suite at Bayhealth Hospital, Sussex Campus. These are commonly called the Cardiac Cath Labs.

Specialist heart doctors, called interventional cardiologists, test and treat the heart's plumbing system. They are specially trained to use catheters, which are small tubes, to access these systems in your heart. Special cameras allow them to view the vessels and look for any narrowing or blockages that may limit blood flow to your heart. This type of procedure is called a cardiac catheterization, also known as a cardiac or heart cath.

Electrophysiologists are specialist heart doctors who test and treat the heart's electrical system. An electrophysiology (EP) study may be recommended for those with an arrhythmia, an irregular heartbeat, or when a heart rhythm problem is suspected. This type of procedure allows the specialists to detect what is causing abnormal heart rhythm and assess how it could be treated.

The results of a cardiac catheterization or EP study can help determine whether you need medication, a device, another procedure or surgery to treat your condition. In some cases, stents may be placed to open narrowed vessels. For an arrhythmia, a pacemaker or implantable cardioverter defibrillator (ICD) may be implanted, or an ablation may be performed. Any of these treatments, along with lifestyle adjustments and ongoing follow-up with your cardiologist, may provide excellent long-lasting results.

The Bayhealth cardiovascular team includes dedicated doctors, nurses and technologists who provide the highest quality of care to patients who are referred for a cardiac procedure because of:

- Heart attack
- Chest pain and abnormal stress test
- Preoperative clearance for surgery
- Chronic or unstable angina
- Congestive heart failure or newly detected heart pump function abnormality
- Valvular heart disease
- Vascular disease
- Irregular heart rhythm

## Leading up to your procedure

Staff from the cardiologist's office will give you a time to arrive for your procedure, and tell you where to check in at the hospital and any medication instructions. Although your procedure is scheduled for a specific time, there may be emergencies or unexpected delays, which can affect your procedure time. For this reason, please plan to spend the entire day with us and feel free to bring reading materials or other items to pass the time.

To ensure patient safety, you will be asked the following questions prior to the procedure:

- Do you have any allergies, particularly to contrast dye or latex? This includes contrast dyes used in various X-rays.
- Do you have a family member or friend who will accompany you the day of your procedure, drive you home and stay with you for 24 hours?

**This is imperative and your procedure is subject to cancellation if these arrangements are not in place.**

## Pre-procedure preparation at home

To ensure accurate test results, you must follow all instructions listed in this guide. If you have any questions prior to your procedure, please contact staff at your cardiologist's office.

- DO NOT eat or drink anything after midnight the night before your procedure, except sips of water to take your medications as instructed by your cardiologist.
- Prepare a complete, up-to-date list of all medications you are taking, including the last dose taken and name of your pharmacy. Bring this with you to your procedure. Please include any prescribed medications, over-the-counter medicines or supplements. Medication management is an extremely important part of caring for your heart.



## Upon arrival for your procedure

- After checking in at the hospital, you will be escorted to the Cardiac Cath Lab holding and preparation area, and a nurse or technologist will explain the procedure to you.
- You will be asked to sign a consent allowing the specialist to perform the procedure.
- You may need additional blood work or tests, such as an electrocardiogram (EKG) or chest X-ray, prior to your procedure, if requested by your cardiologist. Any additional tests will be obtained at this time.
- Medication to help you relax may be provided, if ordered by your cardiologist.
- The hair around the procedure area will be clipped.
- An intravenous (IV) line will be inserted.
- Any remaining questions will be answered at this time.

## What to expect during the procedure

- Your procedure will be performed in the Cardiac Cath Lab and team members will be with you throughout your procedure.
- A blood pressure cuff will be placed on your arm and EKG electrodes will be put on your skin to monitor your blood pressure and heart rate.
- An oxygen sensor will be placed on your finger to monitor your breathing during sedation.
- The procedure site, as determined by the specialist, will be prepped and cleansed with an antibacterial solution.
- A sterile blanket will cover you from chin to toe.
- You will receive sedation through your IV line.





## VASCULAR PROCEDURES: WHAT TO EXPECT

- The specialist will numb the skin around the procedure site and insert a catheter into the artery that supplies blood to that limb. Contrast dye will be injected through the catheter to visualize the arteries of your heart. This is called angiography. It allows real-time assessment of your heart vessels to determine if intervention (angioplasty, which involves opening the vessel with a special catheter with or without stent placement) may be performed to correct vessel narrowing.
- Near the end of the procedure, there may be an image taken of one of the pumping chambers of your heart, which may make you feel warm all over for about 10 seconds. Another image will be taken of the access site to see if a closure device may be used.
- The procedure will last one to two hours.
- IV fluids will be administered.
- You will be required to lie on your back and hold still during and for several hours after the procedure.
- Please report any discomfort you may have to your nurse.

## EP PROCEDURES: WHAT TO EXPECT

- You will meet with a member of the Anesthesia team who will ask you questions and obtain permission for anesthesia during your procedure.

**Patients with palpitations or irregular beats, and sometimes those who have had a stroke, may have undetected heart rhythm problems requiring a loop monitor/recorder.**

For treatment, a loop monitor/recorder may be implanted to allow detection and recording of heart rhythms. A loop monitor is about the size of a small paper clip. You may receive sedation through your IV. After numbing the skin, the specialist implants the loop monitor under the skin near the middle of your chest. This procedure takes about 15 minutes and you most likely will go home shortly after the procedure is finished.

**Patients with fast heart rhythms, such as atrial fibrillation, supraventricular tachycardia (SVT), atrial flutter or similar diagnoses, may have an ablation performed.** The specialist will numb the access site and catheters will be placed through the veins in your leg. These catheters will rest in the heart chamber and deliver current to an identified area that is causing the heart rhythm problem.

**Patients with slow heart rhythm, such as bradycardia, sick sinus syndrome, or heart rhythms related to low heart function, may have a pacemaker or defibrillator implanted.** These devices help maintain and restore a normal heartbeat. An incision is made in the chest, typically on the left side, and wires are placed into the heart chambers through a vessel underneath the collar bone. These wires are connected to a battery or generator which rests in a pocket created under the skin. The generator senses information relayed by the wires and delivers therapy, called pacing.

- EP procedures can last up to a few hours. After the procedure you will awaken and be taken to the Post-Anesthesia Recovery Unit (PACU) and discharged through Day Surgery. You will have an electrocardiogram (EKG) done. Medications you take may be adjusted. Discharge instructions as well as a follow-up appointment will be provided to you in writing.
- Along with discharge instructions and follow-up appointment(s), you may be provided a remote monitoring device which is paired with your implanted device to allow information from the device to be sent to your specialist's office. This will be supplied to you and instructions will be provided by the pacemaker company representative on the day of your procedure.



## After your procedure

- You will be taken to a holding room/recovery area. You may be required to stay in the hospital overnight.
- Your care partner will be called back to the holding room so the specialist can speak with everyone about the procedure and discuss their findings.
- Lab work or an EKG may be performed, if requested by your specialist.
- You may have limited mobility or be on bed rest after your procedure.
- Your nurse will regularly check your blood pressure, pulse and breathing.
- The procedure site will be closely monitored.
- IV fluids may continue to be administered.
- If you were instructed not to take certain medications prior to your procedure, a nurse may be able to administer them afterwards.
- Please report to your nurse any pain, warmth, wetness, and/or bleeding at the procedure site.

## Discharge from the hospital

- Your IV line will be discontinued.
- Medications may be prescribed by your specialist and electronically sent to your pharmacy.
- A nurse will review any prescribed medications and discharge instructions with you and your care partner.
- You will be able to leave the hospital after receiving your discharge instructions. Someone must drive you home from the hospital.

## At home recovery

- Discharge instructions include information about when you may return to work and resume regular activity.
- Do not drive for 48 hours after your procedure.
- Do not push, pull or lift anything greater than 10 pounds for one week after your procedure to allow the procedure site time to heal.
- Wait 24 hours before removing the dressing and showering.
- If the site begins to bleed, lie down and apply manual pressure immediately and call 911.
- If continuous numbness and/or tingling occurs in your access site area, please notify your specialist immediately.
- If the procedure was done through your arm/wrist, you will receive specific instructions outlining limitations.

Once fully recovered, most patients can return to a normal or even more active lifestyle. Your specialist may prescribe aspirin or other medications, particularly for those patients who have received a stent. A low-fat, low cholesterol diet is also recommended.



