

# Cardiac Catheterization

## What is it?

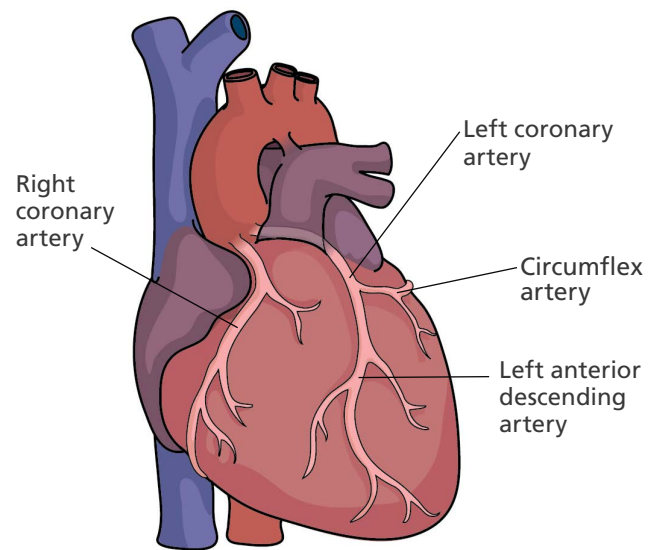
In cardiac catheterization, your doctor inserts a long, flexible tube called a **catheter** into a blood vessel in your groin, arm, or wrist. The catheter is then threaded to your heart.

This procedure helps your doctor see how well your heart is pumping, check the arteries that feed your heart, and examine your heart valves. It may also be called cardiac catheterization, heart catheterization, or an **angiogram**.

## Why do I need it?

- **Cardiac catheterization gives your healthcare providers detailed information about your heart.** It is used to evaluate problems that keep the heart from functioning well, such as heart failure or valve disease. It is also used to diagnose **coronary artery disease (CAD)**. CAD is the narrowing of the arteries that supply blood and oxygen to the heart.
- **Cardiac catheterization can help your doctor diagnose and prevent problems.** Angiography helps your doctor diagnose the problem so it can be treated before it causes any more damage.

Cardiac catheterization can examine blockages in the arteries that feed the heart.



## Talking with your doctor

The table below lists the most common potential benefits, risks, and alternatives for this procedure. Other benefits and risks may apply in your unique medical situation. Don't be afraid to ask questions or talk with your doctor about your concerns.

Potential benefits	Potential risks and complications	Alternatives
<ul style="list-style-type: none"> <li>• <b>Useful information for diagnosis.</b> Cardiac catheterization gives your doctor more detailed information than other tests.</li> <li>• <b>Faster recovery.</b> The procedure doesn't require a major incision (cut) or general anesthesia (medicine that makes you sleep).</li> </ul>	<ul style="list-style-type: none"> <li>• Leg numbness or weakness for a few hours after (rare)</li> <li>• Bleeding or infection where the catheter was inserted (rare)</li> <li>• Bad reaction to the contrast dye (very rare)</li> <li>• Reduced kidney function (kidney failure in rare cases). Tell your doctor or the imaging technician if you have kidney disease or diabetes</li> <li>• Exposure to x-ray energy, which can slightly increase your lifetime cancer risk (for more information, see Intermountain's <i>Guide to Understanding Radiation</i>)</li> <li>• Damage to the artery or heart muscle (extremely rare)</li> <li>• Heart attack or stroke (extremely rare, and not typically caused by the procedure itself)</li> <li>• Unforeseen complications</li> </ul>	<p>Cardiac catheterization is the <b>best way to get accurate information</b> about your arteries or heart valves. Other tests include:</p> <ul style="list-style-type: none"> <li>• Electrocardiogram</li> <li>• Cardiac stress test</li> <li>• Cardiac CT scan</li> <li>• Cardiac MRI</li> </ul> <p>If you have any concerns about your cardiac catheterization, discuss them with your doctor.</p>

## How do I prepare?

- Follow your doctor's directions about medicines.** You may be asked to stop taking blood thinners or adjust your diabetes medicines if you are taking them. Always check with your doctor before stopping any medicines.
- Arrange for a ride.** You will need to have a responsible adult take you home afterward.
- Follow your doctor's instructions about food.** Your doctor or nurse may ask you not to eat or drink anything after midnight the night before the procedure.
- Tell your doctor** if you have a cold, flu, or other illness the day of the procedure.
- Bring a list of all your current medicines with you.** Write down everything, including over-the-counter medicines (like cough syrup or allergy pills), herbs, supplements, and vitamins.
- Tell your doctor about any allergies** to any medicines or dyes.

## What happens during the procedure?

The procedure takes about 1 hour. You'll be relaxed but awake, because you might be asked to breathe deeply or cough. Here is what will happen:

- The doctor will numb the area where the catheter will be inserted.
- Your doctor will insert a sheath (short plastic sleeve) into a blood vessel.
- The catheter will be put into the sheath and threaded to your heart.
- The doctor will inject contrast dye through the catheter. X-rays will be used to show the contrast dye on a screen.
- The catheter will be withdrawn and the sheath will be removed. The site may be closed with a stitch or closure device.

## What happens after?

- You'll be moved to a recovery unit. You may need to lie flat for up to 4 to 8 hours.
- The insertion site may be held under pressure to prevent bleeding.
- Your leg may be numb or weak for a short while. Special steps will be taken to make sure you're safe when you first get up. If you need to urinate and your leg is numb, it may not be safe to walk to the bathroom. You will use a urinal or bedpan instead.
- You may need to drink extra fluids to flush the contrast dye out of your body.

## What happens when I go home?

- **The first 48 hours:** Watch for swelling or bleeding. The site will be bruised, but this should go away in a week or so. Avoid bending or squatting. Avoid intense activity such as climbing stairs, running, or lifting anything over 20 pounds. Take short walks (5 to 10 minutes) four or five times a day. Avoid constipation.
- **Care for the puncture site:** Do not take a hot bath, use a hot tub, or go into a swimming pool for the first 5 days after your procedure or until the wound is closed. You can take a shower after 24 hours (1 day), but don't let the spray hit the site. If the site is sealed with a special closure device, ask your doctor what you should watch for. In some cases, you might need to remove a dressing or pad.
- **Returning to work:** You can go back to work when your doctor says it's okay.

## When should I call the doctor?

Contact your doctor if:

- The arm or leg where the catheter was inserted feels cold or numb.
- There is bleeding or severe pain at the insertion site, or if bruising, redness, or swelling gets worse.
- You have a fever over 100° F.
- You have chest pain or discomfort. If it is severe or not relieved by medicine for chest pain, **call 911.**