



Coronary Angiogram



What is Coronary Angiogram

A coronary angiogram is a special x-ray test where radio-opaque dye is injected into the Coronary Arteries of the heart to find out if there are any blockages in these arteries. The arteries can get blocked with fat cells, or some hard material called plaque leading to blockage of blood flow to your heart.

The angiogram is done to see how badly blocked the artery is and to see if you need further treatment such as angioplasty, heart bypass surgery or medical therapy.

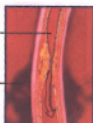
Artery
Blood flows smoothly
Healthy heart muscle



Healthy Coronary Artery

When the lining of a coronary artery is healthy and has no blockage, blood flows through easily. As a result, your heart muscle gets the oxygen it needs to do its job. When you exert yourself, your heart beats faster and harder and needs more oxygen. A healthy artery can easily supply the extra oxygen-rich your heart needs.

Blood flow is partially blocked
Oxygen-starved heart muscle



How should I prepare for the procedure?

Before the day of the coronary angiogram, patients should discuss their medical history with the physician and inform him or her of any medications currently being taken. Certain medications may need to be stopped or reduced. It is also recommended that patients with diabetes consult with a physician regarding food and insulin intake, because people are generally ordered not to eat or drink anything after midnight the day before the test. Individuals should talk with their physician if they have a blood-clotting disorder or an allergic reaction to any of the following:

- Iodine
- Shellfish (e.g., crab or shrimp)
- X-ray contrast media

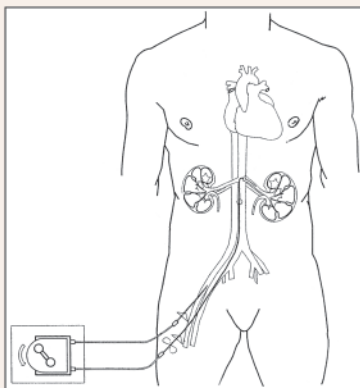
On the day of the procedure, the patient will be admitted to the hospital. A nurse or physician will explain what is going to happen.

You will have to sign a written consent for the procedure as well as an information sheet on contrast media.

A small needle or plastic tube will be inserted into a vein usually in the arm. This will be used to give you fluids and medications during the procedure.

What happens during the procedure?

- You may be given medicine to relax you.
- You will lie on a firm, padded table near a camera and other equipment.
- Your doctor numbs a spot on your groin or arm and inserts a thin tube, or catheter, into an artery and up to the heart.
- Dye or contrast media goes through the catheter so that arteries show up well on the x-ray.
- Many x-rays are taken as the contrast media goes through the artery.
- You may be asked to hold your breath or cough.
- By studying the x-ray, the doctor can see any problems within your coronary arteries.
- If you wish, you can watch the x-ray on the screen.
- The catheter would pass through the aorta into the blood vessels located on the surface of the heart, known as the coronary arteries. Contrast media injected into the blood vessels would be seen on x-ray. Any reduction in blood supply would show up as a narrowing or constriction of the blood vessel. Additionally, the catheter would pass inside the heart to assess the function of the heart valves, and finally into the cavity of the heart where the muscle pumping action of the heart could be evaluated.



Path of Catheter

What might I feel?

- Slight pressure as the catheter is put in
- Some chest pain or discomfort as the contrast media goes in
- Shortness of breath
- Warm, tingly feeling when contrast media goes in
- An urge to go to the bathroom
- Nausea

What happens after the test?

- The catheter will be taken out.
- A staff will apply direct pressure where the catheter was inserted for 15 to 30 minutes to make sure there is no internal bleeding. A dressing will be applied.
- You will go back to your hospital room.
- You may feel sore where the catheter was inserted or from lying on your back.
- You will be asked to lie quietly on your back for several hours.
- If you need to cough or sneeze, place a slight pressure with your fingers, over the insertion site.
- If at any time you notice bright red blood on your dressing, please notify the nurse immediately. You should also bring to her notice if your arm or leg feels cold, numb or painful.

When you go home

- The area where the catheter was placed will be tender.
- There may be slight bruising and you might feel a lump.
- Bathe and do other activities as usual.
- Bleeding, swelling, numbness or tingling around the spot where the catheter was placed. These are common and usually go away in 2-3 weeks.
- You are to refrain from lifting heavy objects or engaging in strenuous exercise for several days after the procedure.

Potential risks with coronary angiograms

While there are some risks involved in any invasive or minimally invasive procedure, coronary angiograms are widely used and complications are low, occurring in less than three percent of patients. These potential complications include:

- Bleeding in the area of the catheter insertion
- Abnormal heart rhythms
- Infection
- Allergic reaction to the dye
- Damage to the arteries
- Heart attack
- Stroke
- Air embolism (when air gets into the bloodstream, where it could cause damage)
- Death

The risk of complications is greater if people are over the age of 70, or have conditions such as diabetes, hardening of the arteries, and kidney failure.



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