



Coronary Angiography



Patient Information

The Heart Center, H:S Rigshospitalet

Department of Cardiology,
H:S Bispebjerg Hospital

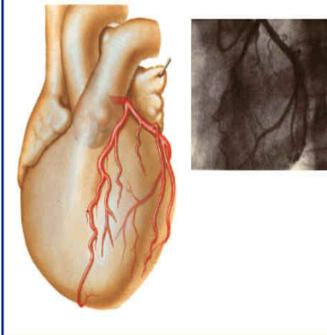
Patientinformation om kranspulsåreundersøgelse, engelsk.

Coronary Angiography

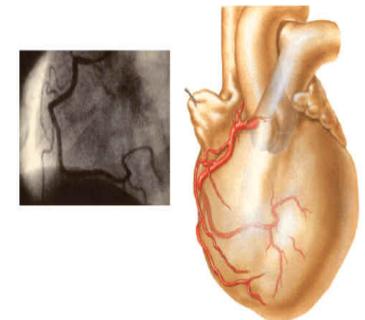
The purpose of this examination is to see the coronary arteries on X-ray. From this the doctor will be able to decide whether there are narrowings or blockages of the coronary arteries and how the performance of the left half of the heart is.

The result of the examination will decide what kind of treatment is needed.

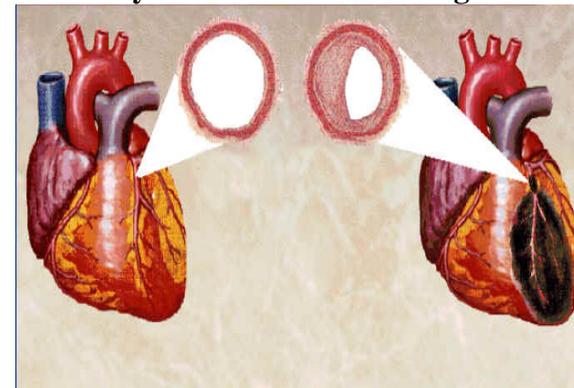
Left coronary artery



Right coronary artery



Coronary arterie with narrowing



Before the angiography

Prior to the angiography the following will be performed:

- Blood test
- Electrocardiogram (ECG)
- Chest X-ray

You must fast from midnight, i.e. you may neither eat or drink, nor may you smoke. You may drink a little water with your usual morning medicine, as little as possible.

If you take diuretics, then consult with the nursing staff before you take it.

About half an hour before the angiography, we will offer you a tablet, which can help you to relax during the angiography.

The coronary angiography is performed in the cardiac Catheterization Laboratory.

The angiography

A Venflon (a little plastic tube on a needle) will be inserted in a vein so medicine can be given if necessary.

Local anesthesia will be injected around the femoral artery in the groin. You will feel a little pressure in the region.

A needle is inserted in the artery, through which a thin guide wire is inserted. The needle is then pulled back and a thin plastic tube (sheath) is inserted over the wire into the artery.

Through this sheath a catheter (a fine long plastic tube) will be guided up to the heart (see illustration).

The catheter is first placed in the left heart chamber and an X-ray dye is injected while an X-ray film is recorded. This will result in a feeling of warmth all over your body for about 30 seconds. The X-ray equipment is placed just above your chest and will rotate around you.

The catheter is then exchanged and X-ray dye is injected in the left and then the right coronary artery.

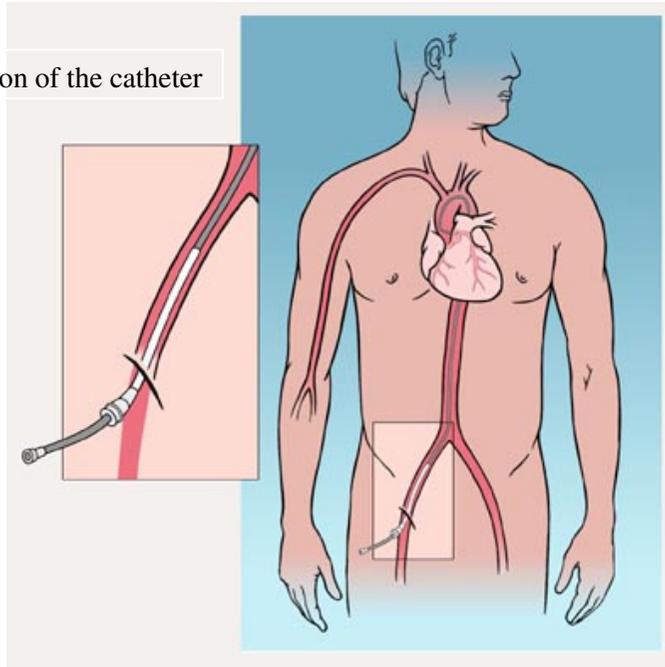
The arteries have no sensory nerves and the insertion of catheters and movement of them in the heart will not be felt.

During the angiography an anticoagulant (Heparin) is injected to prevent the blood from clotting.

Finally the catheter is taken out and later the examining doctor will remove the sheath in the groin. The doctor will then press on the sheath site for about 10 minutes to help close the hole in the artery.

The angiography takes from ½ to 1 hour including preparations.

Position of the catheter



After the angiography

When you are back in the ward, you may eat and drink. You must lie flat on your back for 2 hours. You may not lift your head from the pillow neither raise your arms higher than your face. Your leg, from where the angiography was performed must be still.

The head part of the bed will be raised to about 40 degrees. These precautions are necessary to avoid bleeding from the site of the puncture.

During the first 4-6 days after the angiography you must avoid lifting heavy things and avoid riding a bicycle.

Complications

As in any other medical procedure, complications may occur in rare cases during coronary angiography.

The Danish Board of Health requires that you are informed about possible complications. In the majority of cases the complications are temporary and not dangerous.

It is important to realize that the angiography is necessary for deciding what treatment is to be given. This treatment will most likely result in such benefits, which statistically far will exceed the risk of complications.

Before your referral to angiography, the referring doctor found, after careful medical evaluation, that the angiography was necessary. The risk of the examination was taken into consideration and weighed against the expected benefits.

In a few cases an allergic reaction develops to the X-ray dye containing iodine, which is injected during the examination. This will show as a temporary rash and perhaps a fall in blood pressure. These side effects are treated medically.

Around the puncture site in the groin a minimal bleeding may cause some swelling and tenderness. This happens in 2% of cases. In 1 out of 1000 cases can this bleeding be so much that it requires a surgical removal and closing of the artery.

In other cases a blood clot may dislodge and block the blood supply in e.g. legs or brain. Clots in the legs can be removed. However blood clots in the brain may result in temporary speech difficulty, paralysis or blurring of vision.

In very rare cases (1 out of 3000) and especially in patients with severe atherosclerosis, these changes may be permanent.

Closure of a coronary artery may happen in up to 3 out of 1000 cases. This can be treated immediately with clot dissolving medicine and balloon angioplasty (PTCA), or acute By-Pass surgery.

Especially in patients with severe heart disease, death may occur as a complication in up to 1 out of 2000 cases.

With Best regards from the staff

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