

## **Coronary angiography and angioplasty**

Coronary arteries are blood vessels that are located on the surface of the heart and are responsible for providing the heart muscle with blood and oxygen. A buildup of cholesterol (atherosclerosis) narrows these blood vessels and causes coronary heart disease, which can cause chest pain due to lack of oxygen in the heart muscle. Abnormality in heart valves can limit the heart's pumping ability causing shortness of breath and fatigue.

Coronary angiography is a procedure that can be performed in case there is a suspicion of either disease. It is performed using local anesthetic. If atherosclerosis is found in the coronary arteries, an angioplasty using a balloon catheter may be indicated. This can be done right after the coronary angiography.

### **Before arrival**

- Make sure the condition of your skin at the incision site (both wrists and the groin) is healthy.
- You will receive separate instructions regarding the day of your admission. (medication, fasting etc.)
- On the day of the procedure, operating a motor vehicle is prohibited.
- Make sure you are accompanied by an adult for the rest of the day.

### **During the procedure**

Under local anesthetic, after an incision in either the wrist or the groin, a thin tube (catheter) is inserted into the artery. Using X-ray video imaging, the catheter is located to the coronary artery. Iodine-based contrast substance is then injected into the coronary artery, which makes the artery visible to X-rays. The examination is usually painless and lasts around an hour (1h).

The results are visible immediately and the doctor will decide the best treatment option for you: Medical treatment, angioplasty or coronary artery bypass surgery. An angioplasty may be performed right after the results.

In an angioplasty, a thin wire is inserted along the coronary artery and over this wire, a catheter with an expandable balloon is located to the narrowed site. The balloon is inflated with a liquid which pushes the plaque against the artery wall widening the vessel and allowing better blood flow. A wire mesh tube (stent) may be inserted to help keep the narrowed site open.

### **Aftercare**

In case you have been performed an angiography, you may go home after 4-6 hours of monitoring. However, prepare to spend a night in the hospital especially after an angioplasty.

The duration of sick leave depends on your line of work. Avoid exertion for two days after the procedure. The incision site usually heals in a week after which, there are no limitations to your normal daily activities.

### **Safety of the procedure**

There are always risks involved with these procedures but the severe complications (internal bleeding, clogging of the artery, a stroke, death) are extremely rare (below 0,5%).

A bruise may appear at the incision site which should heal in the following weeks.

### **Contact the treating ward in advance if:**

- You are or suspect to be pregnant. X-rays are used during the procedure.
- You have a fever or an acute infection.