

## The Coronary Angiogram Procedure

Coronary angiogram, also called percutaneous transluminal coronary angioplasty, is used to increase the flow of blood and oxygen through a clogged artery. It is not a surgical procedure. It is performed with the use of a catheter and a tiny balloon that is used to widen the partially blocked artery. These blocked arteries may cause chest pain and lead to a heart attack. The coronary angiogram procedure is used as a treatment option depending on the patient's age, his/her underlying medical problems, and the area and extent of the blockage. It is often used as it is less risky than other procedures. It is performed over 250,000 times a year in the United States and is completed with a success rate of about 90%. Coronary angiogram is carried out in three stages.

In the first stage, the patient is prepared. The patient is given certain types of medication, such as aspirin and other anti-clogging medication, to reduce the chance of more blood clots. Before the actual procedure begins, the patient is asked to refrain from food or drink from midnight of the day before the procedure. The patient may, however, take routine medications depending on the doctor's advice. Additionally, prior to the procedure, an electrocardiogram, blood tests, and a chest x-ray are taken to check the patient's physical health.

After the patient has been prepared, the procedure begins. First, the patient is sedated. The sedative is administered through an intravenous line in the patient's arm; during this time, the patient is conscious but relaxed. Next, a local anesthetic is used to numb the area in which a catheter will be inserted. During the entire procedure, the patient's heartbeat and vital signs are monitored. A catheter is inserted in either the femoral artery in the patient's groin or in his/her brachial artery in the inner part of the elbow. The catheter is then threaded through the blood vessels. Next, a dye is injected into the patient's body. This dye allows the physician to take pictures of what is inside the arteries. It also helps the physician determine the exact place and amount of the blockage. Once this has been completed, the doctor uses one of two methods to open the blocked artery. In the first option, the doctor may use a balloon, which is inserted through the catheter. The balloon is then inflated which causes the artery to widen and the blood clot to flatten. The second option involves the use of a laser. This is called laser angioplasty. During this procedure, the clot is located and the laser vaporizes the fat deposits.

The third stage of coronary angiogram involves post-procedure care. Initially the patient feels groggy and experiences soreness at the site where the catheter was placed. First the first six to eight hours during recovery, the patient's vital signs are continuously monitored and s/he must lie still with his/her arms kept straight. After the procedure, the patient is allowed to resume his/her normal diet. S/he is usually discharged one day after the procedure though follow-up visits are necessary. Once the patient is home, s/he must take some precautions. S/he is not allowed to lift heavy objects. Additionally, tiring exercise is prohibited for several days. Medication must be taken as directed. The patient may return to work one to two days after the procedure, though s/he must contact the doctor if any bleeding or pain is experienced.

In conclusion, the coronary angiogram procedure, which helps blood move through blocked arteries, is carried out in three stages. In the first stage, the patient is

prepared. Then, during the actual procedure, pictures are taken of the blocked area and then the artery is opened with the use of either a balloon or a laser. During the post-procedure care period, several precautions must be followed.