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## ELE282: Bilateral Femoral Arteriogram

An arteriogram is a x-ray of arteries to evaluate vascular conditions. Blood vessels are not normally visualized in conventional radiography because no natural contrast exists between them and adjacent soft tissues of the body. Therefore the blood vessels must be filled with a contrast to be seen in the films. Angiography is also a generic term that describes the radiological examination of the vascular structures of the body.

Many different arterial systems can be studied, including the systems of the legs, kidneys, brain and heart. The different vascular conditions that can be recognized are aneurysms (ballooning of blood vessels), stenosis (narrowing of blood vessels) and thrombosis (blockage of blood vessels).

The procedure is about an hour long and the anesthesia given allows the patient to be awake, but usually leaves them with no memory of the testing. During the procedure the doctor will insert a needle in the groin area. The doctor will stick the

needle, which contains an inner tube, in the femoral artery. Via the tube of the needle a long guide wire is inserted up to the desired arterial system. From there a long soft flexible tube called a catheter is threaded along the guide wire. This is when the contrast is injected. The contrast can be injected either by hand with a syringe but ideally an automatic injector is used. The automatic injector allows for a desired amount of contrast to be entered at a desired rate.

The insertion of the needle, wire and catheter are done under fluoroscopy. This allows the radiologist to see where in the arterial system he is going. After the contrast is injected the technician will set the machine to film at a rate of about one picture per second. The pictures are taken from about the middle chest area all the way to the toes. The radiologist can then see what is the vascular condition and with consultation from a cardiologist further steps can be taken.