

Interventional Radiology: your alternative to surgery

Over the last twenty years, interventional radiology has gained momentum offering an invaluable alternative to open surgery.

In the majority of cases, it allows for shorter hospital stays, general anaesthesia is usually not required and the risk, pain and recovery times are reduced compared to conventional surgery.

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Cardiovascular and Interventional Radiological Society of Europe

What is Interventional Radiology?

Interventional Radiology is a sub-discipline of radiology, specialising in the diagnosis and/or treatment of a vast array of conditions by performing minimally invasive procedures.

The following imaging techniques guide these procedures:

- x-ray
- ultrasound
- magnetic resonance (MR)
- computed tomography (CT)

Catheters with guide wires, usually only 1-2 millimetres in diameter, are guided through blood vessels or other organ pathways to treat at the site of disease.

The body parts and systems that can be treated using interventional radiology techniques are:

- abdomen (intestine, kidneys, liver, stomach)
- central nervous system (brain, spine)
- chest (lungs, pleurae)
- heart & vascular (arteries, veins, haemodialysis access)
- musculoskeletal (bones, joints, spine)
- genitourinary (uterus, kidneys)
- others (specimens from all organs and soft tissues)

Interventional radiologists pioneered the safe and high quality procedures and standards for performing minimally invasive medicine with a concentration on patient safety.

Interventional radiologists are specialists of radiology, who have completed further education and expert training in diagnostic radiology and interventional radiology including radiation safety, radiation physics, the biological effects of radiation, injury prevention and clinical practice; the latter allowing for patient consultations as a result of a direct referral or the like.

My Interventional Radiology Journey

procedure - 30 days



I consult a radiologist who examines my files and informs me on interventional methods and procedures.



During this consultation, the radiologist carries out a clinical examination.

procedure - 10 days



I undergo further scans or imaging tests (X-ray, MRI or ultrasound) in order to locate my lesion and determine whether an interventional procedure would be appropriate in my case.



During this examination, the radiologist is assisted by a radiology technician.

procedure - 30 minutes



*In the preparation room,
I am welcomed by a nurse who
checks my files, my perfusion, etc.*



*I leave the preparation room and
am transported by an attendant
to the examination room.*

procedure - 10 minutes



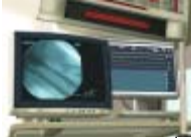
My way to the examination room



*Through the entrance of the
examination room, I can see the
interventional radiologist and a
technician as well as part of the
examination table.*

The examination room

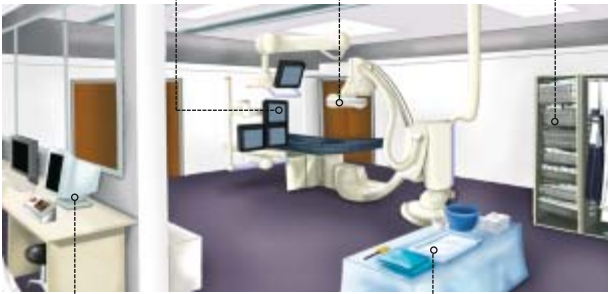
Beside me, there are several screens which show the interventional radiologist images of my lesion as well as my vital signs during the course of the examination.



Above me, I can see the radiology equipment that transmits images of my vessels as well as the site and condition of my lesion on the screens.



On the other side, I can see the cupboard that contains equipment/ apparatus to be used during the examination: guides, balloons, stents, etc.



In the control room, I can see nurses and technicians who run the radiology equipment and analyse the images under the supervision of the interventional radiologist.

procedure + 30 minutes



The interventional radiologist as well as the nurses and technicians remain by my side throughout the whole examination.



After the intervention, I am brought to the recovery room where the doctor compresses the puncture site to stop the bleeding.

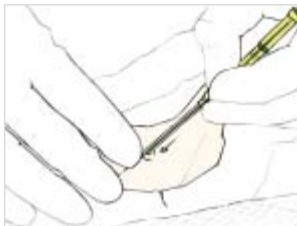


Compression bandage is then applied and I can return to my hospital room for one or two nights.

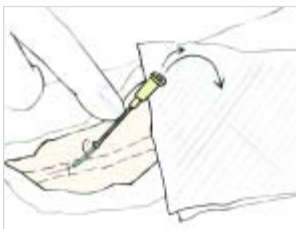
Technique of arterial puncture to enter the catheter



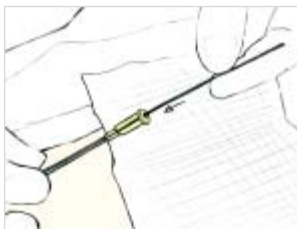
The interventional radiologist injects local anaesthetic in the area to be punctured.



The interventional radiologist performs the puncture.



With the needle removed, the Teflon (short plastic tube) remains in place and arterial reflux can occur.



The guide wire is then introduced.



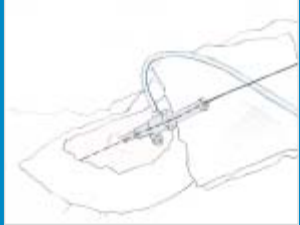
The Teflon is removed, only the guide wire remains in place.



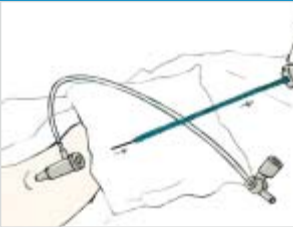
The sheath is glided over the guide wire which will allow for the delivery of medication or material.



The sheath is gradually inserted in the skin.



The sheath is now in place and the guide wire protrudes from the sheath.



The dilator and the guide wire are removed simultaneously.



The sheath is then flushed by injecting saline water.



The intervention in itself can then begin: the guide wire is inserted and guided up to the lesion, plaque or fibroid.

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