

# What is Interventional Radiology?

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# What is Interventional Radiology?

- Imaging used to guide minimally invasive surgical procedures that diagnose and treat conditions.
- Includes fluoroscopy, MRI, CT, and ultrasounds.
- Guide catheters and wires during procedures, while looking at images



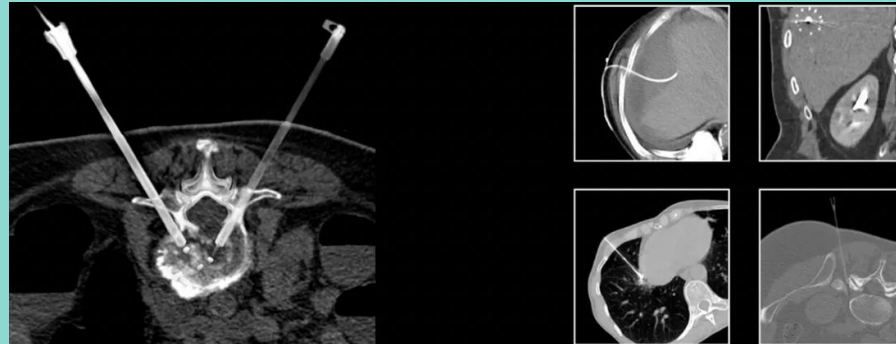
# Benefits?

Seeing inside the body with just a needle sized hole

Treatment can be done by least invasive techniques

Quicker, less risk, less pain and shorter recovery time

Less scarring and less side effects



# When do we use interventional Radiology?

**Cancer patients-** radioactive medicines put directly onto tumors and cancer cells or cut blood flow to a tumor

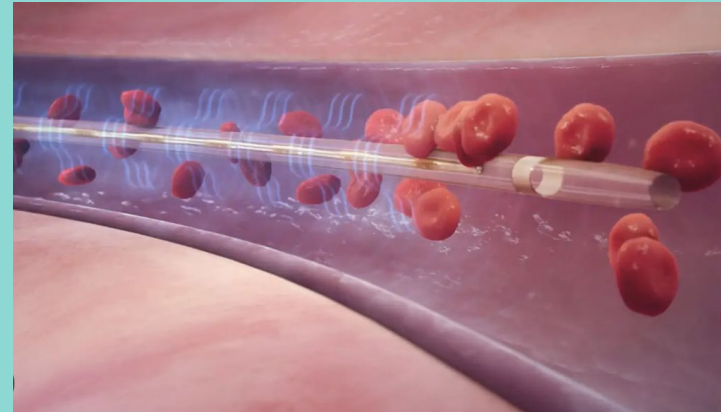
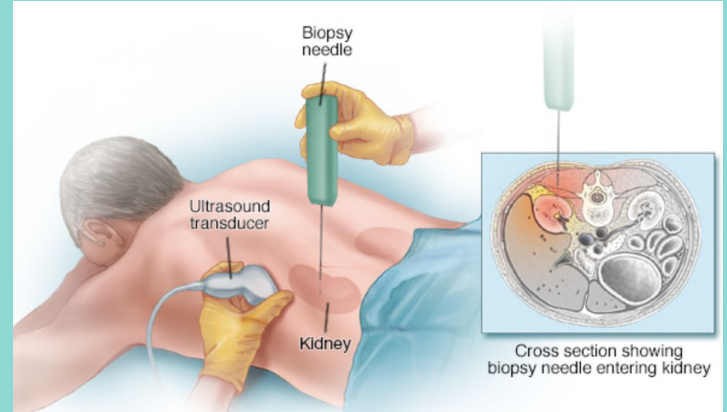
## Examples of procedures:

Angioplasty

Thrombolysis

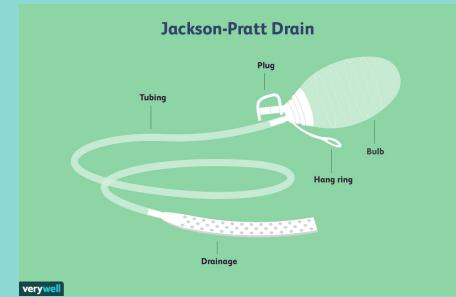
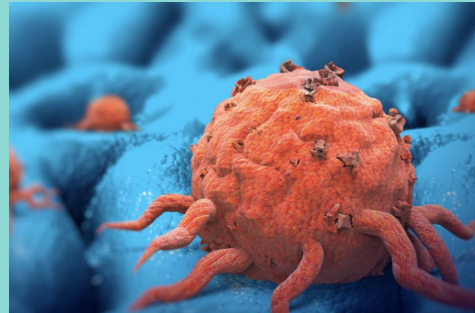
Embolization

Biopsy



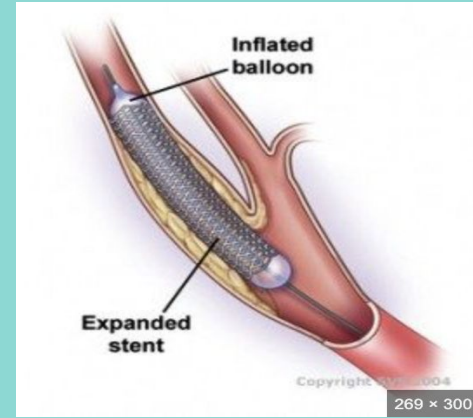
# Applications of Interventional Radiology

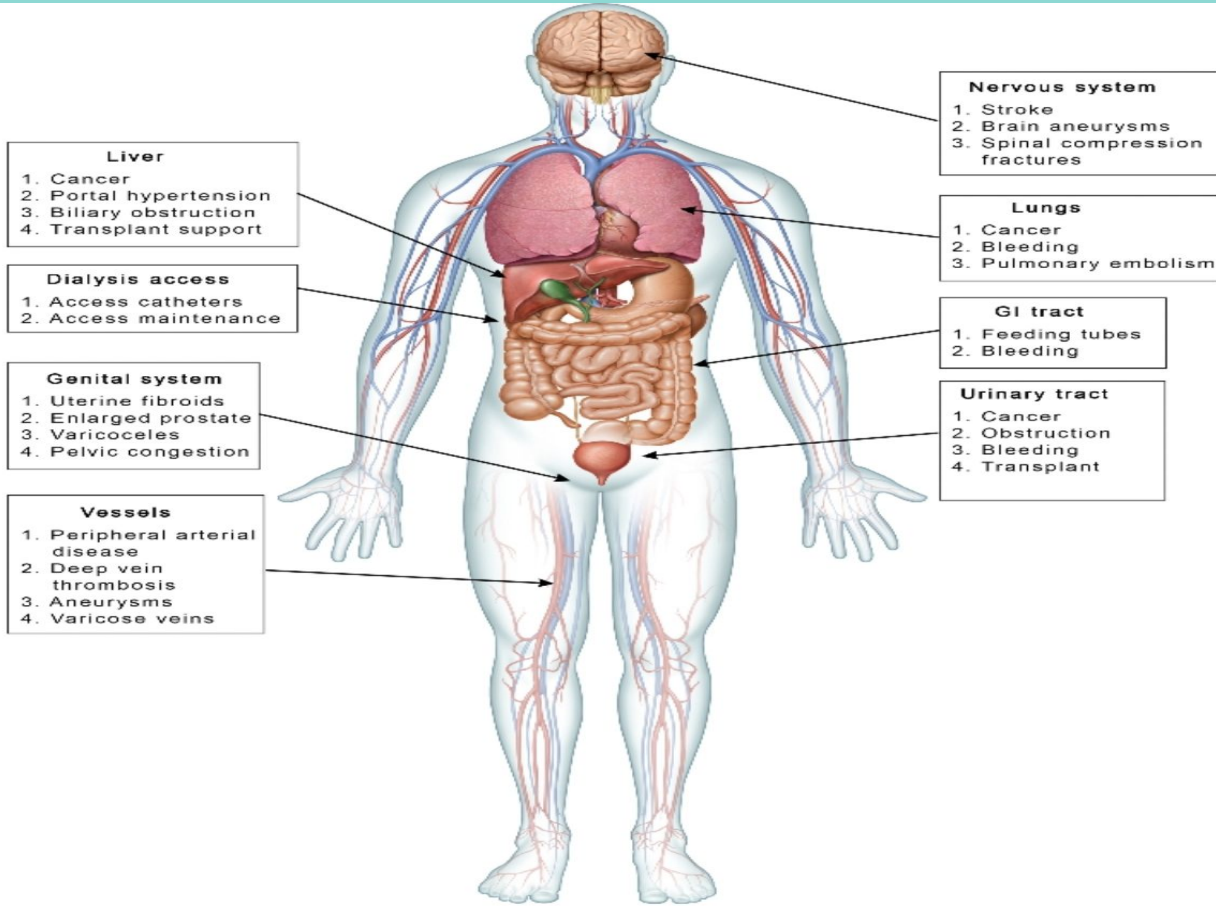
- Use fluoroscopy to maneuver a catheter such as to locate internal bleeding in arteries
- Inject contrast media to visualize vessels and organ
- Insert a drainage tube to remove blockage
- Unblock blood vessels and arteries to restore blood flow
- Local tumor cell destruction-thermoablation



# A common procedure- stenting

- 1) Images are taken to visualize the area the stent is being placed.
- 2) A catheter is inserted through an artery in the groin, leg, or arm.
- 3) Contrast is injected so that the blood flow through the arteries is visible on the TV monitors with a series of x-ray images.
- 4) A balloon catheter is guided through the vessel, and then a stent, to the site of the blockage. The balloon is inflated and stretched wide against the artery walls, which opens the blockage.
- 5) Then the balloon is deflated and taken out, leaving the stent in place.







## References:

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