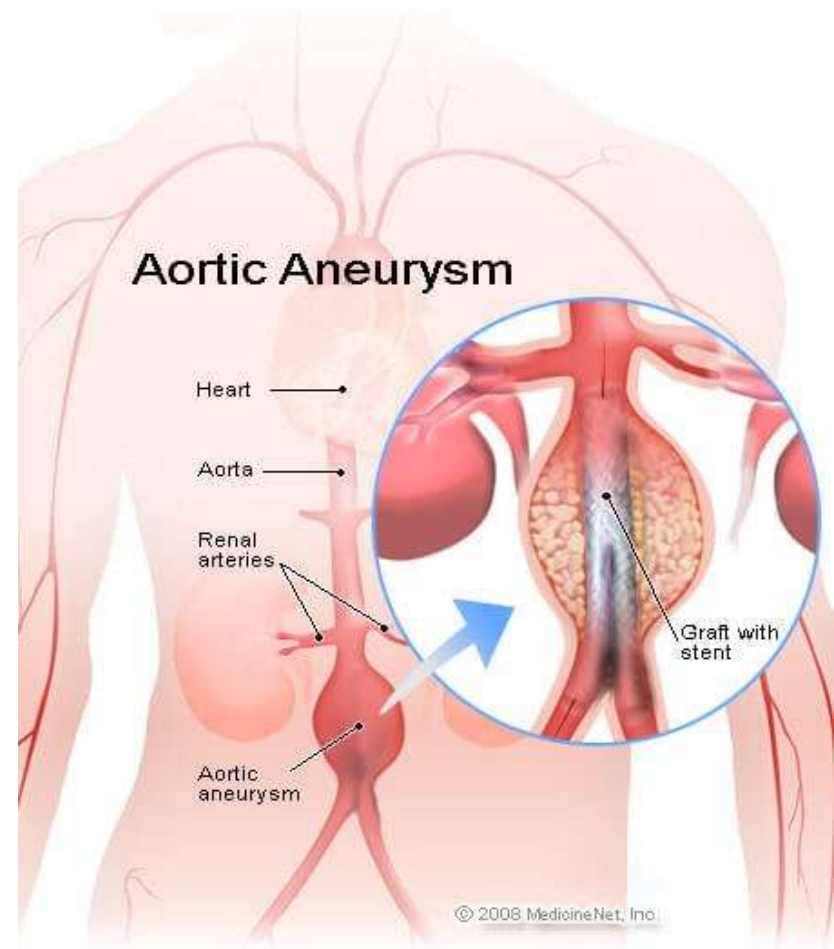


# ABDOMINAL AORTIC ANEURYSM

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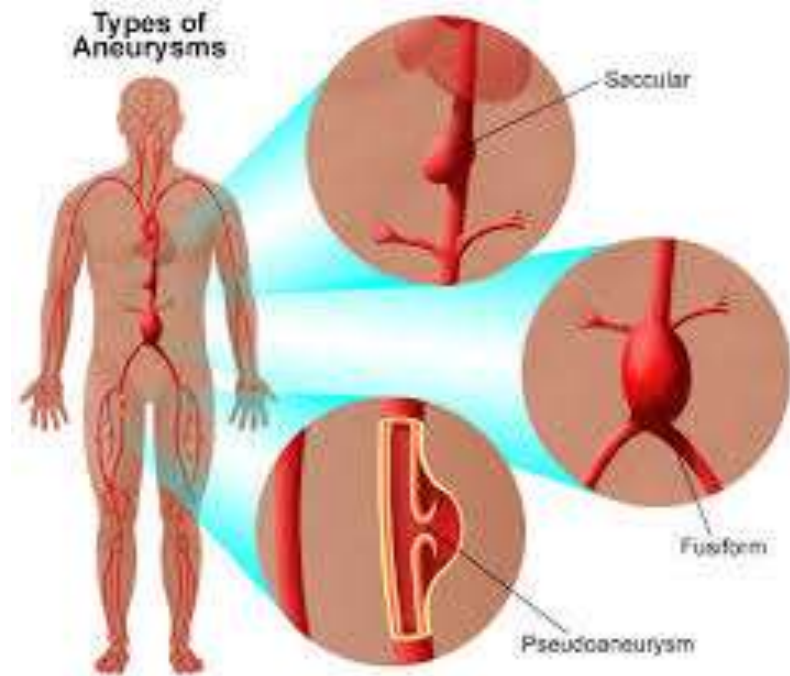
# Introduction

- An aneurysm is a localized abnormal dilatation of a blood vessel wall or the heart
- More in males than females (4:1)
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- Mostly elderly People (>60 Yrs.)



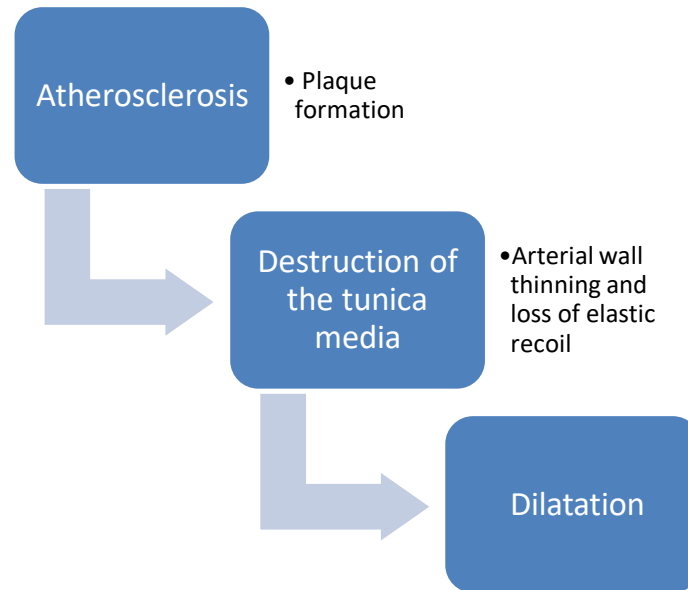
# Introduction

- 95% infrarenal
- 5% are juxtarenal, thoracic or both
- Size: 3 to 15 cm
- Shape: Usually fusiform – long dilated segment (versus saccular which is spherical)



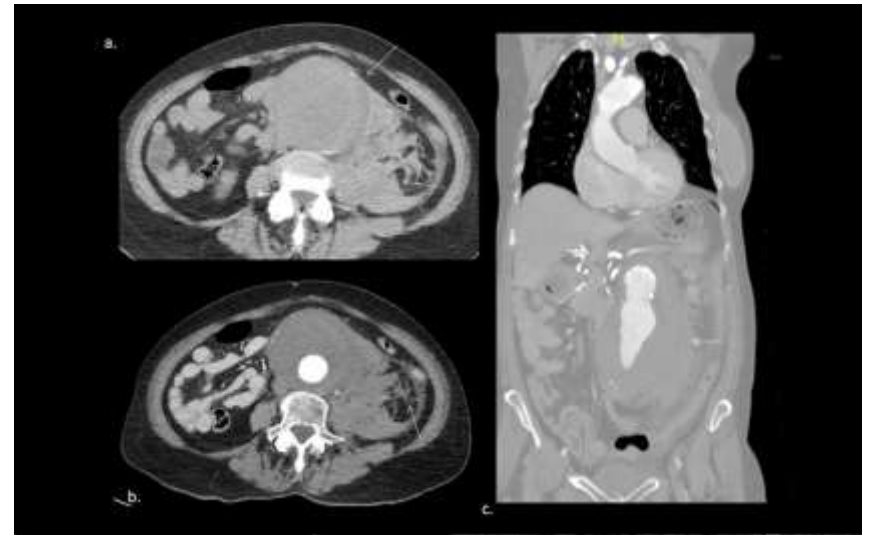
# Pathology & Risk Factors

- Smoking
- Hypertension
- Family History
- Marfan (Cystic degeneration)
- Ehler-Danlos
- Trauma, infection (mycotic)
- Atherosclerosis is the most common etiological factor



# Risk of Rupture

- Small aneurysms <5cm have a 2-3% chance of rupture per year
- Aneurysm larger than 5.5 cm will have a 10% risk of rupture per year
- 75% of aneurysms 7cm or larger will rupture in 5 years
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# Presentation

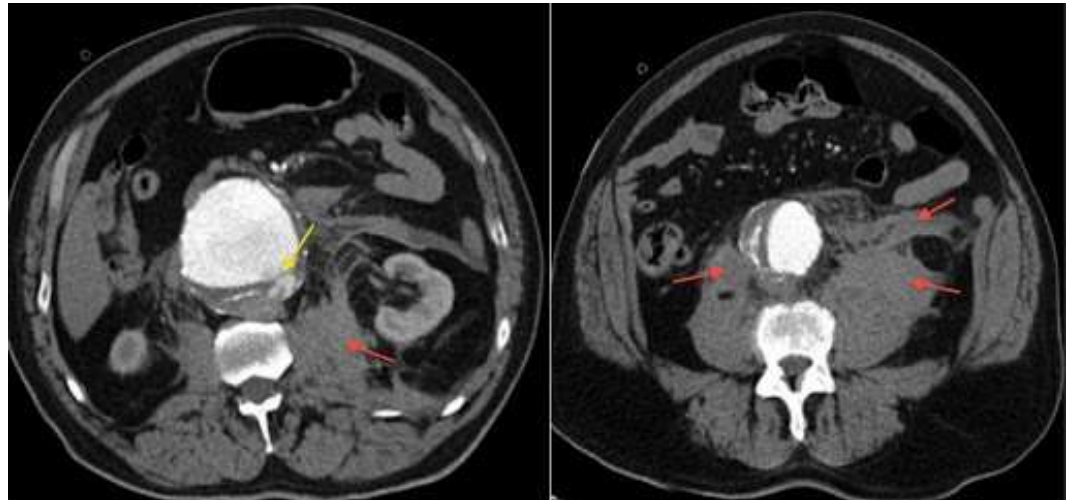
- Asymptomatic
- Rupture: intense abdominal pain radiating to the back, becomes rapidly hypotensive and goes into shock (Most feared presentation) - Trash feet: distal Thromboembolism ☐ gangrene of feet
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- Local compression on neighboring structures e.g. ureter
- Obstruction of branches from aorta e.g. iliac, renal, mesenteric, vertebral
- Look for risk factors

# Physical Examination

- Visible pulsation
- Pulsations and mass
- Mass is expansile  
Auscultate for bruit
- Check the other arteries
- Look at the lower limbs for any gangrene, infection, etc.

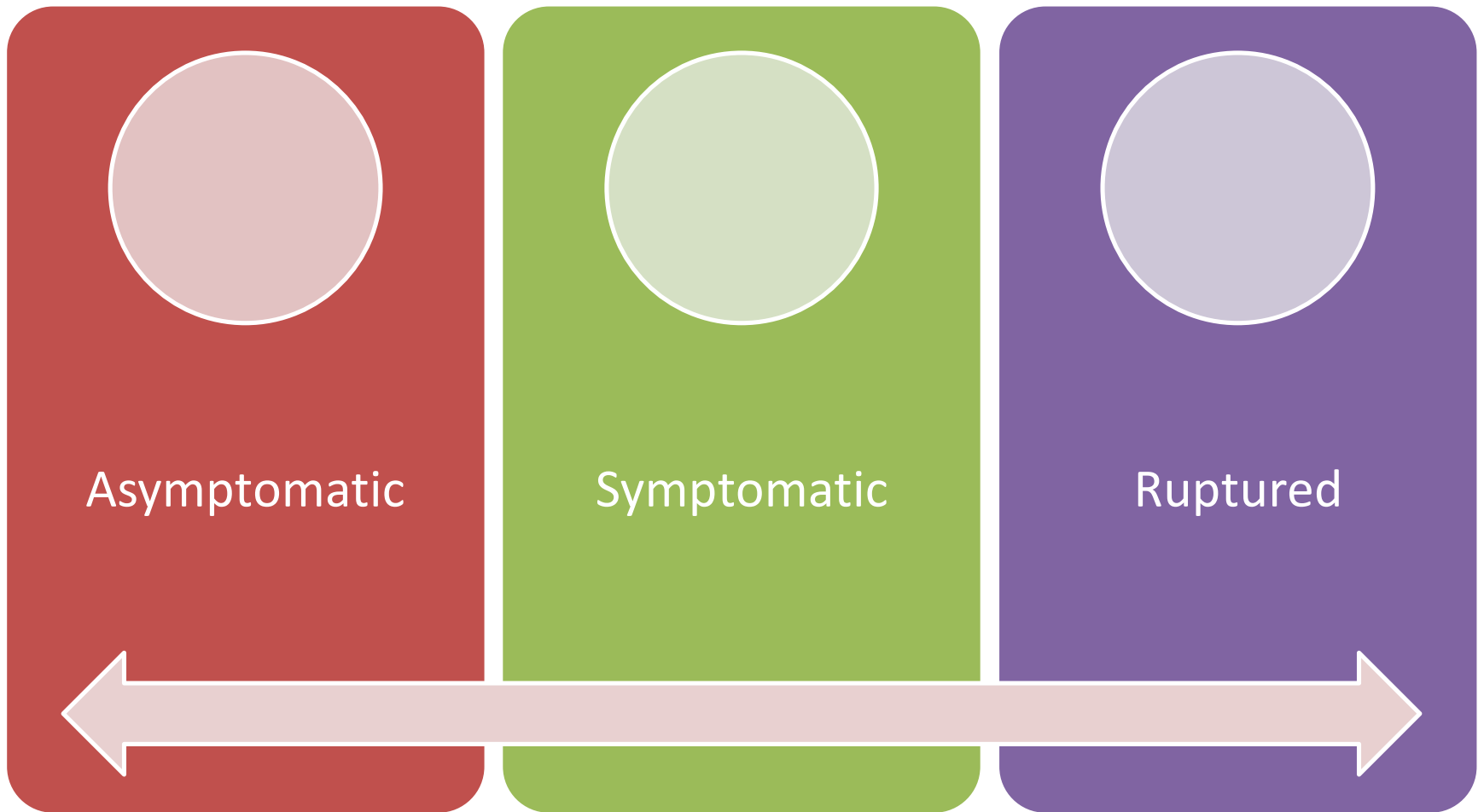
# INVESTIGATIONS

- CT Abdomen & Pelvis
- FBC
- Renal profile
- PT/PTT
- GXM for 4 units
- ECG
- CXR
- 





# Management Depends on



# Ruptured AAA

- Very high mortality
- Stabilize patient
- Call for vascular surgeon
- Bring to OT for open repair
- Most common complication postoperatively is renal insufficiency

# Non-ruptured AAA

- Time for investigations
- Indications for surgery:
  - (a) Aneurysm > 5.5 cm in largest diameter [risk of surgery outweighs that of AAA]
  - (b) Increase in diameter of more than 1cm per year
  - (c) Symptomatic aneurysm – back pain, tenderness on palpation, distal embolism, ruptured/leaking aneurysm
  -
- Assess Patient properly
- Surgery same as in ruptured AAA
- Endovascular stenting -

# Complications of Surgery

## Intraoperative

- 1. Acute myocardial infarction
- 2. Stroke (due to hypotension or embolism)
- 3. Renal insufficiency
- 4. Colon ischemia – occurs in 2-6%
- 5. Trash foot – embolism of thrombus from the aneurysm
- 6. Infection of graft
- 7. Spinal cord ischemia (quite uncommon)
- 8. Hemorrhage

# Complications of Surgery

## Late

- 1. Aortoenteric fistula – frank PR bleeding, torrential
- 
- 2. Late infection of prosthetic graft material
- 
- 3. Sexual dysfunction
- Post
- **Post operative investigations:**
- FBC: Hb and plt (blood loss and consumptive coagulopathy)
- UECr: renal insufficiency or contrast nephropathy
- KUB: check position of stent