

# Misc Anatomy

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# Upper Limb

## Arteries

### Subclavian Artery

- from:
  - L: directly from aorta
  - R: part of brachiocephalic trunk
- end: at outer border 1st rib > axillary artery
- relations:
  - scalenus anterior lies between subclavian vein & artery  
↳ vein in front mm; artery behind mm
- branches:
  - internal thoracic art

### Axillary Artery

- from outer border 1st rib
- to lower border of teres major > brachial artery
- relations:
  -

### Brachial Artery

- from teres major
- to cubital fossa opposite neck of radius where divides into:
  - radial artery
  - ulnar artery
- relations:
  - always under biceps brachii
  - lies on long head of triceps
  - then on coracobrachialis
  - then on brachialis

### Radial Artery

- from opposite neck of radius all way to wrist ⇒ forms deep palmar arch
- relations:
  - runs under brachioradialis
  - at wrist winds posteriorly under AbPL
  - pierces 1st dorsal interossei ⇒ palmar branch

### Ulnar Artery

- = larger than radial artery
- from neck of radius to wrist ⇒ forms superficial palmar arch
- relations:
  - runs down medial forearm under FDS
  - lies lat to pisiform at wrist

## Veins

### Basilic Vein

- from ulnar side of dorsal venous network
- ascends medial side of forearm
- @elbow: lies ant to medial epicondyle
- pierces deep fascia in upper arm
- drains into axillary vein

### **Cephalic Vein**

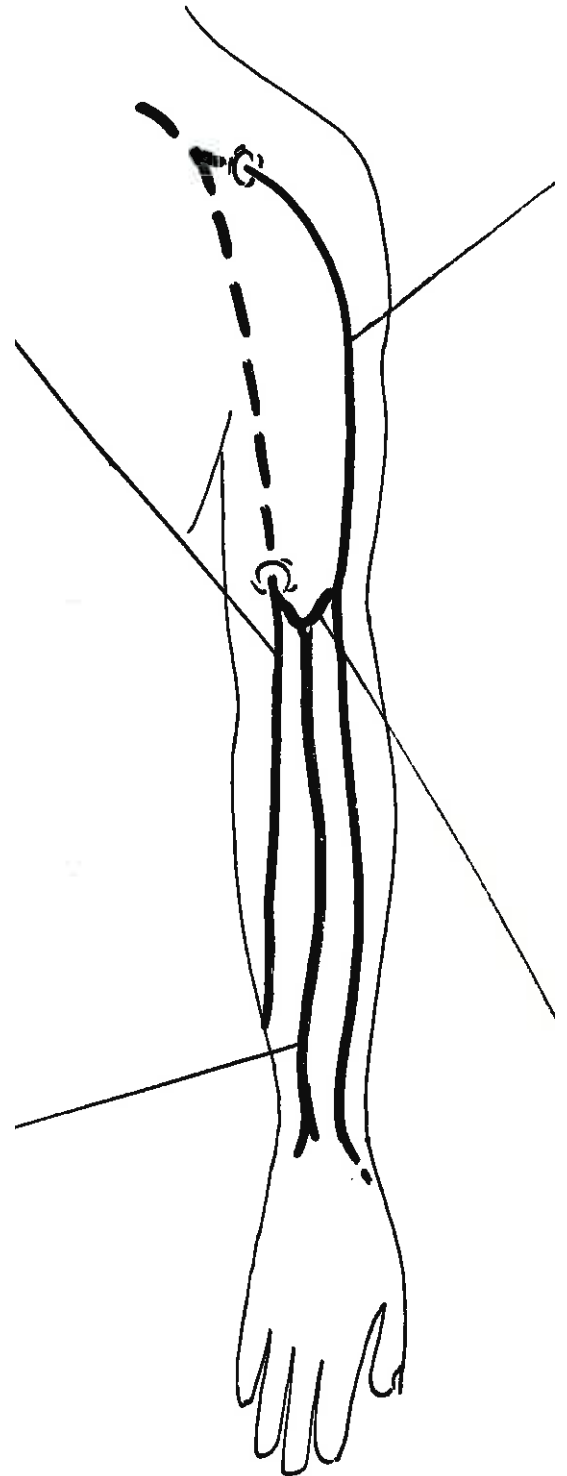
- from radial side of dorsal venous network
- ascends ant/lat forearm
- @elbow: lateral to biceps tendon
- pierces clavipectoral fascia in upper arm
- drains into axillary vein

### **Ant Median Cubital Vein**

- not always present
- passes from palm of hand to cubital fossa

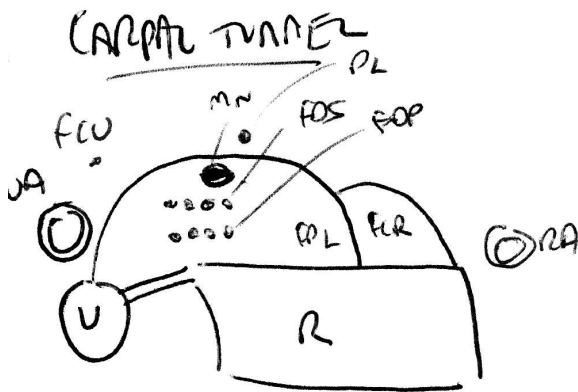
### **Median Cubital Vein**

- short vein draining into the basilic vein at level of medial condyle
- common venopuncture site

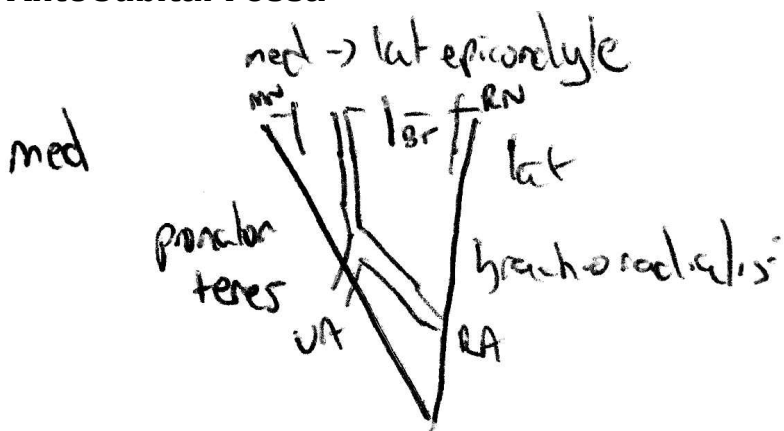


## Spaces

### Carpal Tunnel



### AnteCubital Fossa



- floor = brachialis & supinator
- contents:
  - tendon biceps
  - brachial artery - splits in fossa into radial & ulnar
  - nerve - median & radial

### Snuff Box

- post border: EPL
- ant border (closest to palm): APL & EPB
- floor: trapezium & scaphoid

# Lower Limb

## Arteries

### Aorta

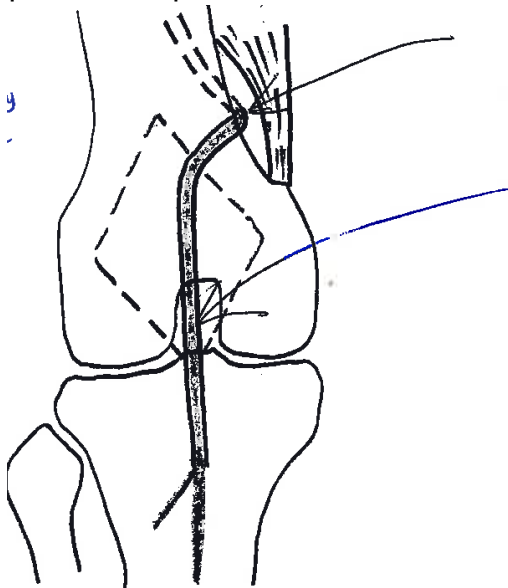
- divides into:
  - common iliac arteries:
    - internal iliac > obturator artery  $\Rightarrow$  supplies medial compartment of thigh
    - external iliac artery > femoral artery

### Femoral Artery

- emerges under inguinal ligament
- gives off
  - medial circumflex artery - supplies NoFs
  - profunda femoral  $\Rightarrow$  supplies deep anterior compartment of thigh
- runs along ant med thigh in adductor canal
- prior to knee passes into post compartment of thigh  $\Rightarrow$  popliteal artery
  - ↳ under arch formed by adductor magnus

### Popliteal Artery

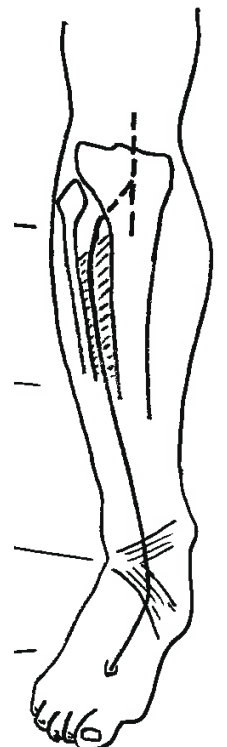
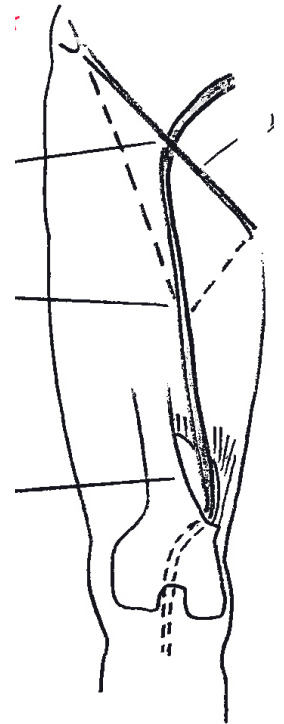
- = continuation of femoral artery
- passes deep to tendons of semi muscles into popliteal fossa



- @ lowest corner of fossa splits into:
  - anterior tibial artery
  - posterior tibial artery

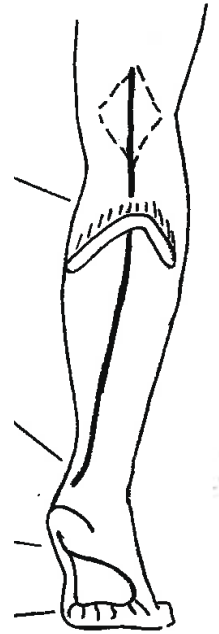
### Anterior Tibial Artery

- passes through opening at top of interosseous membrane  $\Rightarrow$  into ant compartment
- runs down on ant aspect of IO membrane
- passes under extensor retinaculum between EHL & EDL
- on top of foot > dorsalis pedis artery:
  - runs lateral to tendon of EHL
  - palpate: run line between EHL & adjacent EDL to navicular
  - terminates by passing through 1st interosseous space to plantar aspect



### Posterior Tibial Artery

- = large of 2 divisions
- passes down deep to soleus: over FDL & FHL
- passes down under flexor retinaculum behind medial malleolus
- divides into terminal branches:
  - medial plantar arteries
  - lateral plantar arteries
- ↳ join to form plantar arch ⇒ sends of digital branches



### Venous Drainage

- all smaller arteries are accompanied by 2 venae comitantes  
↳ = deep veins of limb
- additionally the LL has a superficial drainage system:
  - long (great) saphenous vein
  - short (lesser) saphenous vein

### Long Saphenous Vein

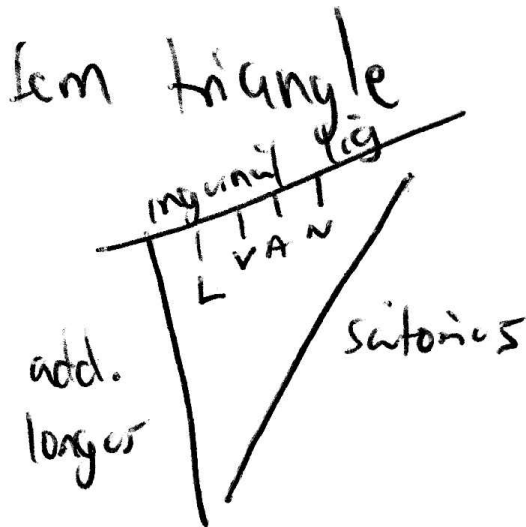
- = longest vein in body
- receives blood from dorsal venous network
- runs
  - @ankle: ant to medial malleolus
  - calf: ascends under skin on postmedial side
  - @knee: behind & medial to femoral & tibial condyles
  - thigh: up on anteromedial aspect ⇒ opening in cribriform fascia called saphenous opening
- saphenous lies 2cm below inguinal ligament
- vein ⇒ femoral vein

### Short Saphenous Vein

- from dorsal venous network of foot
- behind lateral malleolus
- runs up lateral to achilles tendon
- lat side of calf
- at popliteal fossa ⇒ pierces deep fascia between 2 heads of gastro ⇒ drains into popliteal vein

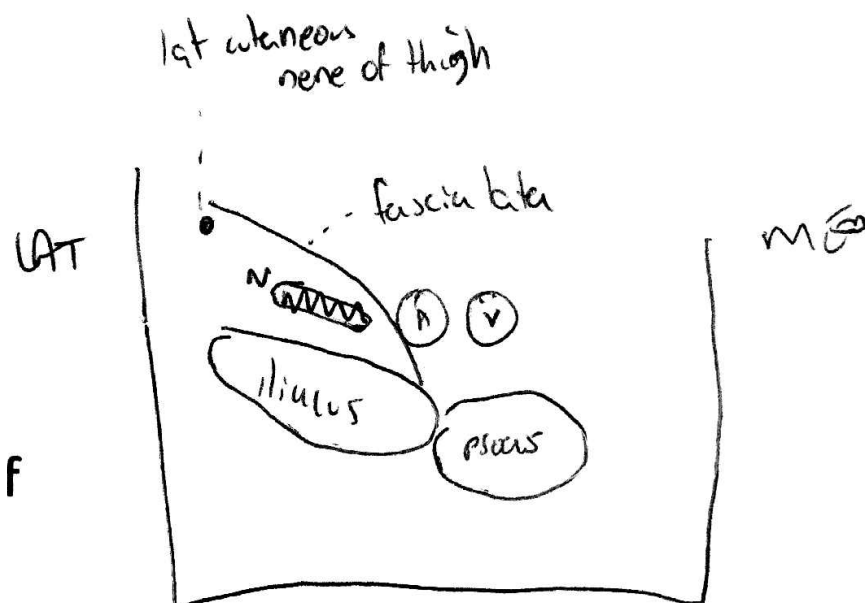
## Spaces

### Femoral triangle



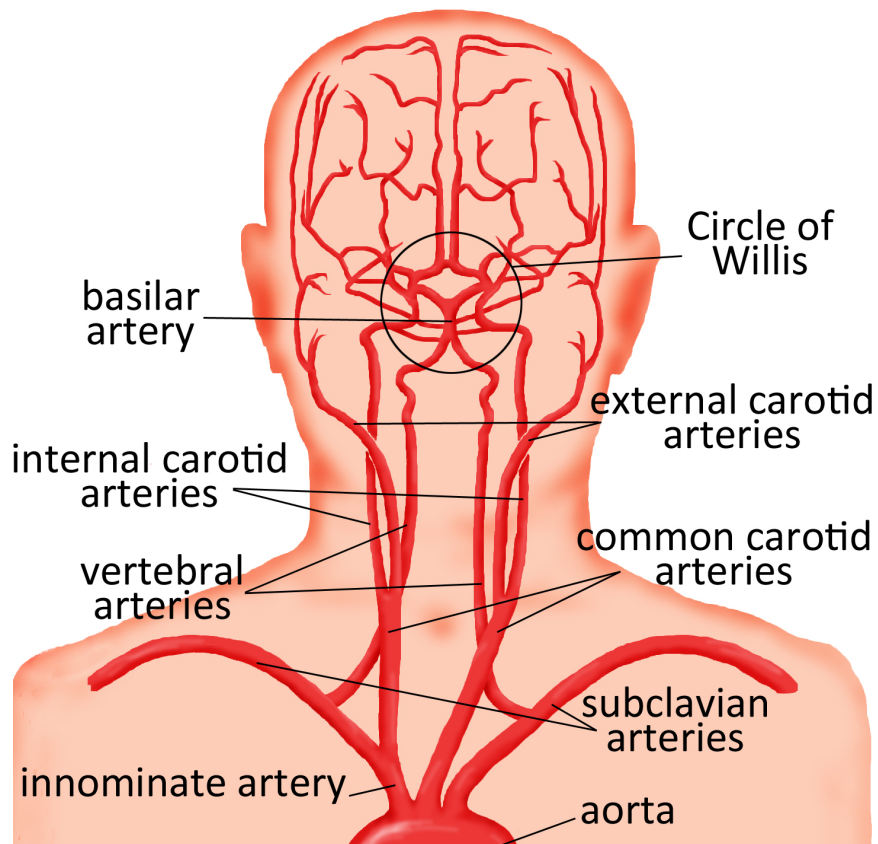
- floor = pectineus, psoas major, iliacus
- contents - as above

### Ultrasound View of Fem Triangle

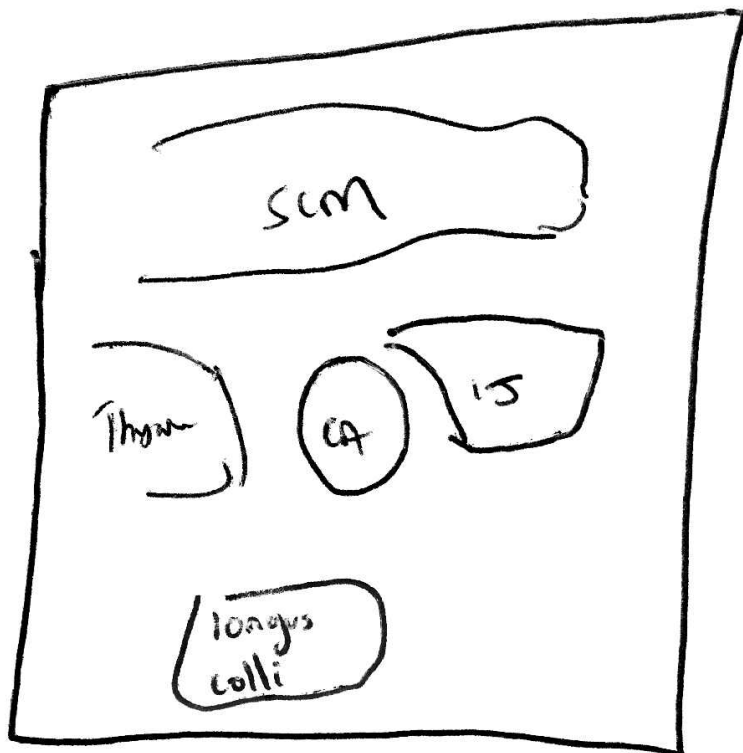


# Head & neck

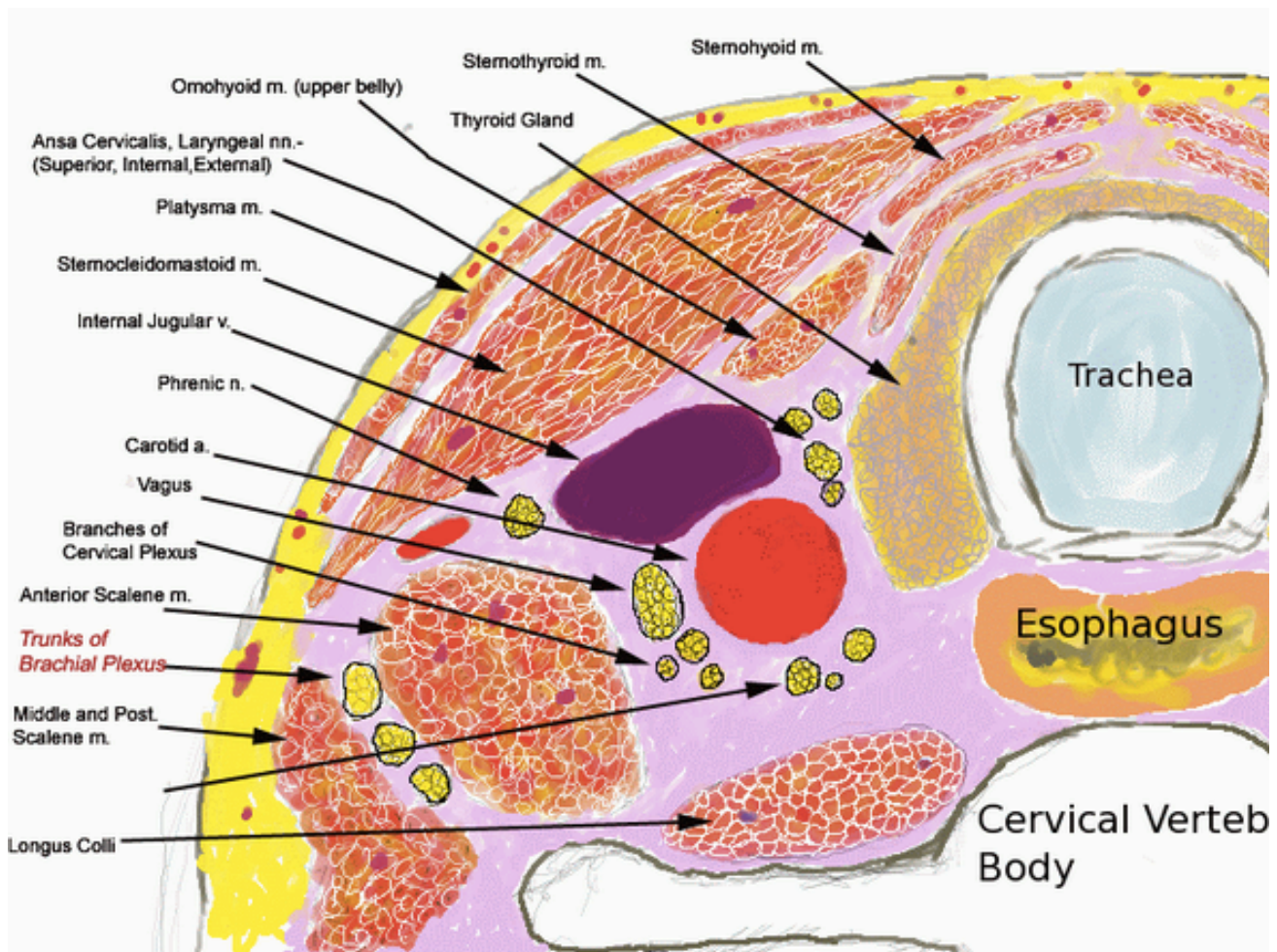
## Artery



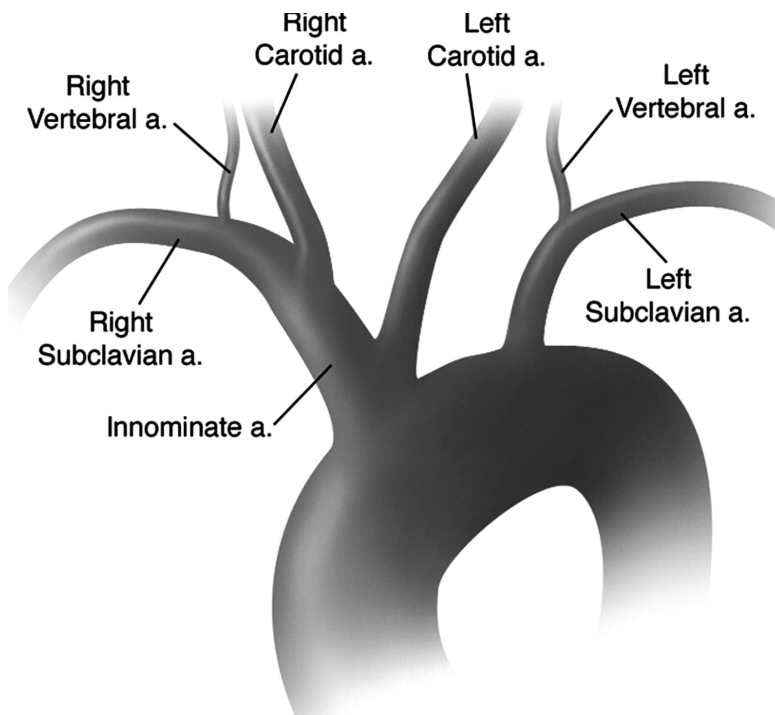
## Ultrasound View for IJ CVL

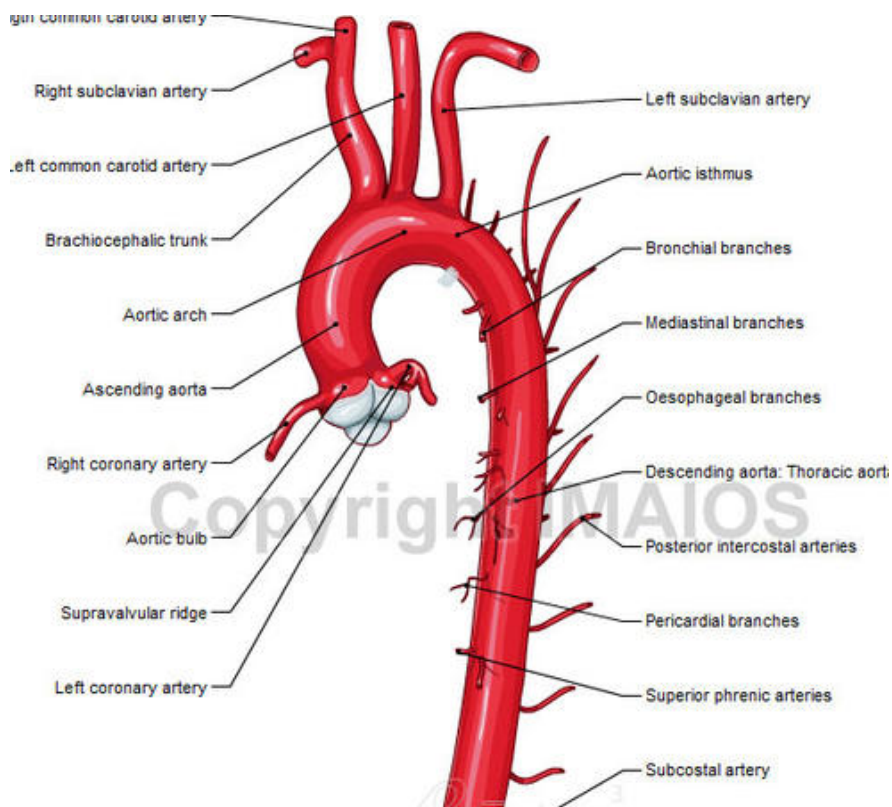




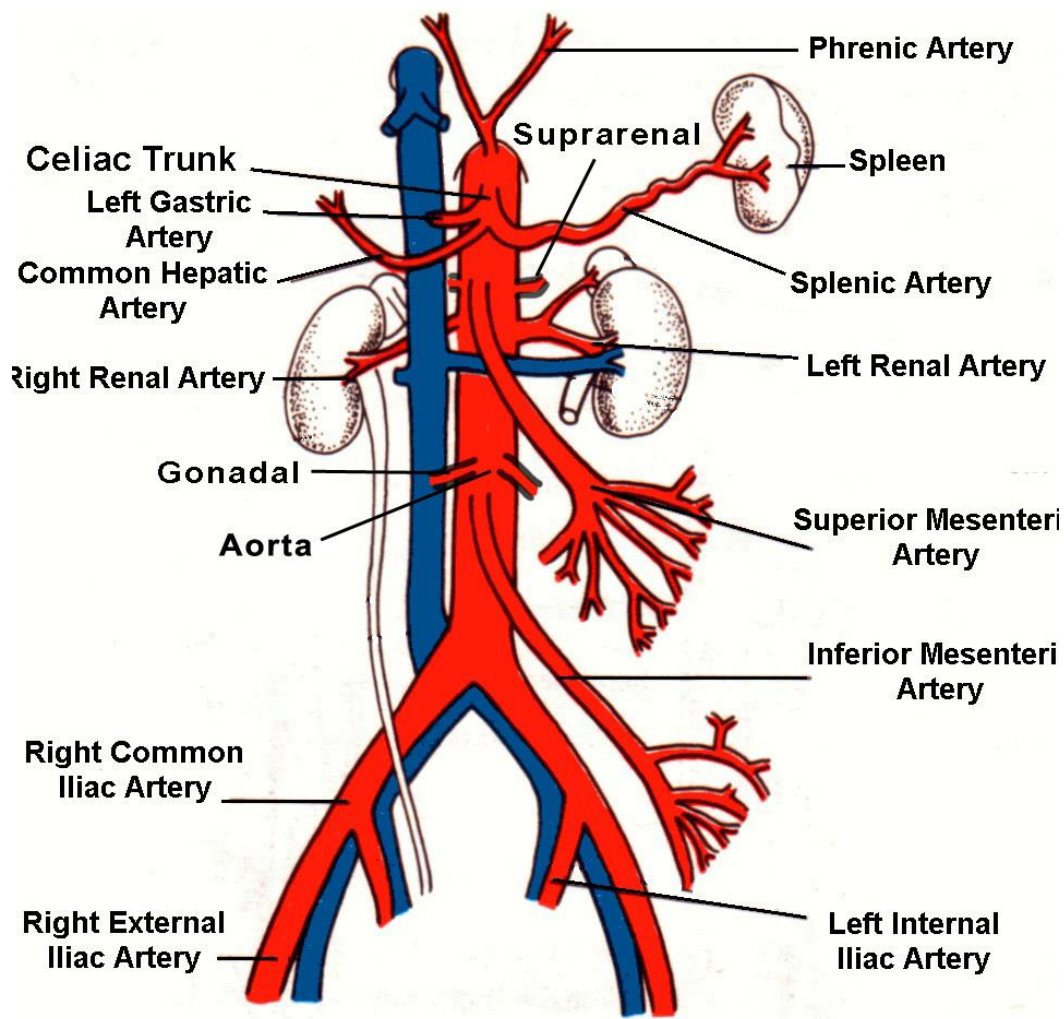


## Arteries of Thorax





# Arteries of the Abdomen



## Course of Abdominal Aorta

- Begin T12
- Left of midline
- Bifurcation just below umbilicus L4

## Branches AA

- Single ant:
  - Celiac trunk
  - SMA
  - IMA
- Paired visceral:
  - Common iliacs
  - Gonadal
  - Sup & inf adrenals
  - R & L inf phrenics
  - Lumbar arteries

## Arterial Supply of Colon

- Coeliac (T12):
  - branches:
    - Common hepatic

- Splenic artery
    - L gastric
  - to the foregut:
    - liver/stomach/abdo oesophagus/spleen
    - superior half of duodenum & pancreas
  - SMA (L1):
    - branches:
      - Ileocolic, R colic, middle colic
      - Marginal artery (runs along inner border of colon)
    - supply midgut:
      - lower duodenum
      - rest of small bowel
      - R colon & transverse colon
  - IMA (L3):
    - branches:
      - L colic, sigmoid arteries, superior rectal artery
      - Marginal artery
    - supplies:
      - transverse colon & descending colon
      - sigmoid colon
  - Rectum:
    - arteries:
      - superior rectal artery < IMA
      - middle rectal artery < internal iliac artery
      - inferior rectal artery < internal pudendal artery
    - venous drainage:
      - rectal venous plexus - establishes communication between portal & systemic venous systems
        - internal plexus
        - external plexus:
          - lower part > inf rectal veins > internal pudendal vein
          - middle part > middle rectal vein > internal iliac vein
          - upper part > superior rectal vein > inf mesenteric vein > portal vein
- ↳ ∴ 1st pass metabolism on upper part only!



# Veins of the Body

