

***Tikrit University***

***College of Nursing***

***Basic Nursing Sciences***



**First Year - 2023-2024**

**Anatomy**

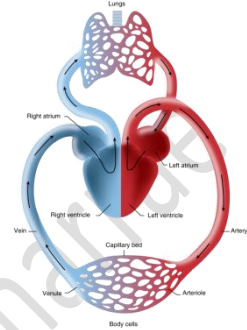
***Blood vessels part1***

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## blood vessels

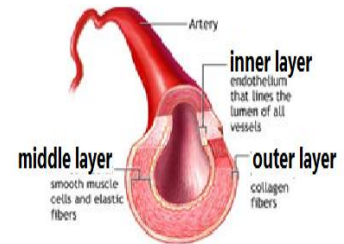
☒ There are three types of blood vessels:

1. **Arteries:** carry blood away from heart.
2. **Veins:** carry blood back toward heart
3. **Capillaries,** the smallest blood vessels, connect arteries and veins



☒ Blood vessels (except capillaries) are made up of three layers

1. **Tunica interna:** internal layer (epithelial cells)
2. **Tunica media:** middle layer (smooth muscles+ elastic fiber)
3. **Tunica externa:** outer layer (connective tissue)



### 1.Arteries:

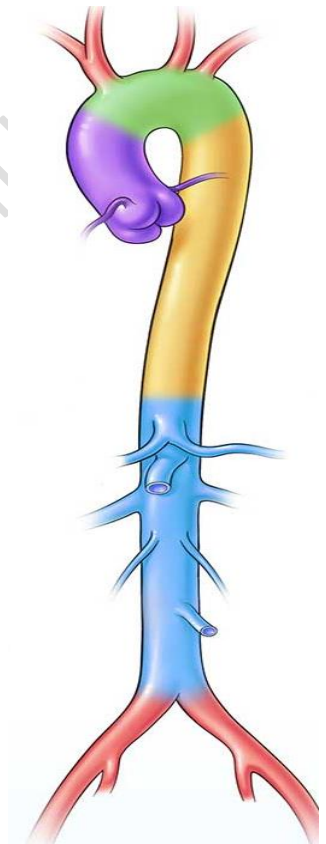
▪ Classified into three types

- 1) **Elastic** arteries: eg **aorta**
- 2) **Muscular** arteries: eg **brachial artery**
- 3) **Small** arteries: eg Arterioles are small arteries that link up to capillaries

## ❖ major arteries of the body

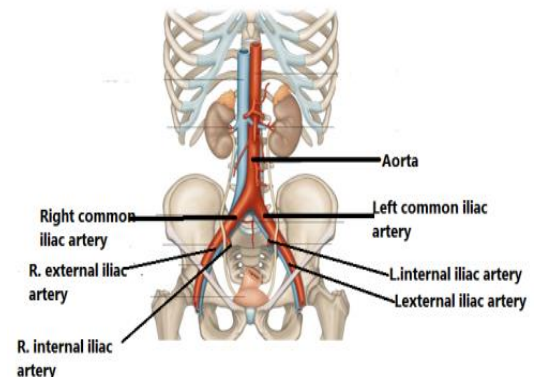
### Aorta:

- The largest and longest artery in the body.
- Carries oxygenated blood to all parts of the body.
- Is divided into 4 parts
  - 1) Ascending Aorta
    - branches are the two coronary arteries
    - which supply the heart
  - 2) arch of aorta
    - has three branches,
      1. The brachiocephalic trunk.
      2. The left common carotid artery.
      3. The left subclavian artery.
  3. Descending thoracic aorta .
    - passes through the thoracic cavity and supply the chest viscera



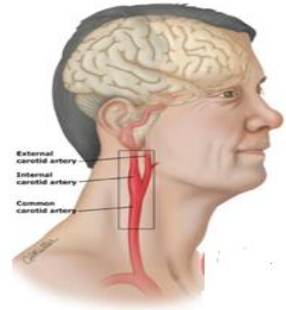
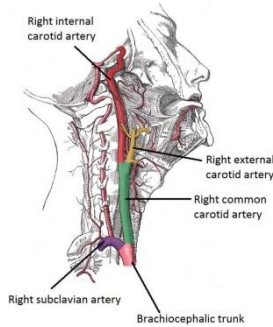
### 4) Abdominal Aorta:

- passes through the abdominal cavity and supply the abdominal viscera
- at the level of the L4 vertebra it bifurcates into right and left common iliac artery
- each common iliac artery dividing into
  1. the external iliac artery continues as femoral artery
  2. the internal iliac artery to supply a pelvic organs



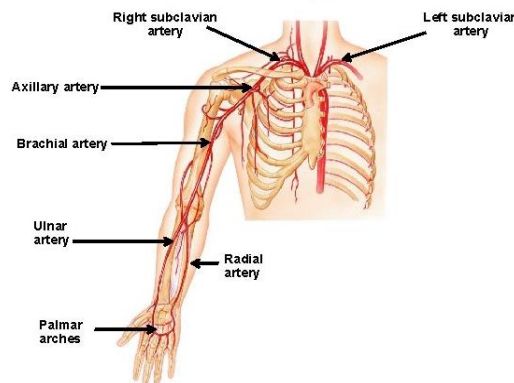
❖ Major Arteries of the head and neck

- A two common carotid arteries runs on either side of the neck
- each common carotid artery divides at level **upper border of thyroid cartilage into :**
  1. The internal carotid artery: supply the brain
  2. The external carotid artery: supply the face and neck and scalp



❖ major arteries of upper limb

- The arterial supply to the upper limb is derived by **five main** arteries from (proximal to distal):
  1. Subclavian artery, behind the clavicle
  2. Axillary artery in the axilla,
  3. Brachial artery in the arm
  4. Ulnar artery on ulnar side of forearm
  5. Radial artery on the radial side of forearm
    - The radial and ulnar arteries ends in the hand as palmar arches

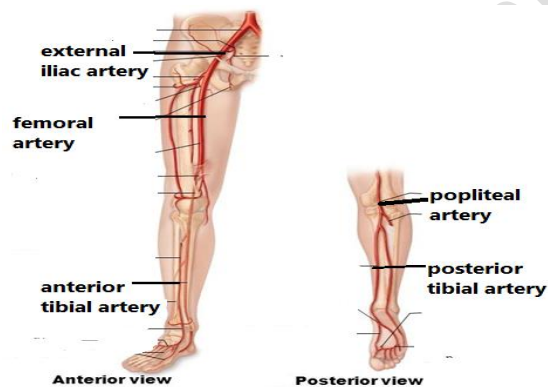


## 4-major arteries of lower limb

- **Femoral Artery:**
  - Is the main supply for lower limb
  - Is the continuation of external iliac artery
- **Popliteal Artery**
  - Placed in the popliteal fossa.
  - Divides, at lower end of popliteal fossa into:

1-Anterior Tibial Artery continuous on the dorsal of foot as dorsalis pedis,

2-Posterior Tibial Artery continuous in the planter of foot as medial and planter arteries



## ❖ PULSE points

### 1. Pulse point in the neck



**Carotid pulse of carotid artery**

### 2- Pulse Points in Lower limb.



**1-Femoral pulse of femoral artery on groin region**



**2-popletal pulse of popliteal artery behind knee joint**



**dorsalis pedis pulse of dorsalis pedis A**

### **3-Pulse Points in Upper limb**



**1-Brachial artery pulse:** is commonly used to measure blood pressure with a stethoscope and sphygmomanometer on the anterior aspect of the elbow



**2-Radial artery pulse:** at wrist