

# **Body Cavities and Serous Membranes**

## **Body Cavities**

### **Dorsal Cavity**

Cranial cavity

Spinal cavity

### **Ventral Cavity**

Thoracic cavity

Right and left pleural cavity

Pericardial cavity

Mediastinum

Abdominal cavity

Pelvic cavity

## **Sectioning the Body**

Sagittal section

Midsagittal

Parasagittal

Frontal (coronal)

Transverse

## **Serous Membranes**

### **Outer coverings:**

Parietal pleura

Parietal pericardium

Parietal peritoneum

### **Inner coverings:**

Visceral pleura

Visceral pericardium

Visceral peritoneum

### **Mesenteries:**

Mesentery proper

Mesocolon

Greater omentum

### **Retroperitoneal Organs**

Pancreas

Duodenum

Ascending colon

Descending colon

Adrenal glands

Kidneys

Ureters

Urinary bladder

Internal reproductive structures

Rectum

## **The Endocrine System**

## **The Endocrine Glands**

Hypothalamus

Pituitary gland

    Anterior lobe (adenohypophysis)

    Posterior lobe (neurohypophysis)

Pineal gland

Thyroid gland

Parathyroid glands

Thymus gland

Adrenal glands

    Adrenal cortex

    Adrenal medulla

Pancreas

Ovaries

Testes

## **The Cardiovascular System**

## **Blood Flow Through the Heart**

### **The Pulmonary Circuit**

Deoxygenated blood is returned to the heart from veins of the body.

Superior vena cava, inferior vena cava

- Right atrium
- Tricuspid valve
- Right ventricle
- Pulmonary semilunar valve

→ Pulmonary trunk to pulmonary arteries: carries blood to the lungs for oxygenation

### **The Systemic Circuit**

Oxygenated blood is returned to the heart from the lungs by pulmonary veins

Pulmonary veins (right and left)

- Left atrium
- Bicuspid (mitral) valve
- Left ventricle
- Aortic semilunar valve

→ Ascending aorta: carries oxygenated blood throughout body via arterial system

## **External Structures of the Heart**

### **Coverings, Linings, and Layers**

Pericardium

Pericardial cavity

Epicardium (visceral pericardium)

Myocardium

Endocardium

## **Chambers**

Right and Left Atria (atrium singular)

Auricles  
Right and Left Ventricles

### **External Landmarks**

Coronary sulcus  
Anterior interventricular sulcus  
Posterior interventricular sulcus  
Apex  
Base

### **Major Blood Vessels into and Out of the Heart**

Superior and inferior vena cava  
Pulmonary veins  
Pulmonary trunk  
Pulmonary arteries  
Ascending aorta  
Aortic arch  
Ligamentum arteriosum

### **Coronary Vessels (Blood supply to the Heart Itself)**

Right coronary artery  
Marginal artery  
Posterior interventricular artery  
Left coronary artery  
Anterior interventricular artery  
Circumflex artery  
Coronary sinus  
Middle cardiac vein  
Great cardiac vein

### **Internal Structures of the Heart**

## **Right and Left Atria**

- Pectinate muscle
- Interatrial septum
- Fossa ovalis
- Opening of coronary sinus

## **Right and Left Ventricle**

- Tricuspid valve (top of right ventricle)
- Bicuspid (mitral) valve (top of left ventricle)
- Chordae tendinae
- Papillary muscle
- Interventricular septum
- Trabeculae carneae

## **Pulmonary Trunk (take off from right ventricle)**

- Pulmonary semilunar valve

## **Aorta (take off from left ventricle)**

- Aortic semilunar valve
- Openings of right and left coronary arteries

## **Autorhythmic Elements (Intrinsic Conduction System)**

- Sinoatrial (SA) node
- Atrioventricular (AV) node
- Atrioventricular (AV) bundle (Bundle of His)
- Right and left bundle branches
- Purkinje fibers

## **The Vascular System**

### **The Pulmonary System**

- Pulmonary trunk

Pulmonary arteries

Lobar arteries

Pulmonary veins

## **The Systemic Arterial System**

### **Vessels of the Torso**

Ascending aorta

Aortic arch

Brachiocephalic trunk

Right subclavian

Right common carotid

Left common carotid

Left subclavian

Thoracic aorta

Intercostals

Abdominal aorta

Celiac trunk

Left gastric

Splenic

Hepatic

Superior mesenteric

Renal

Ovarian/testicular (gonadal)

Interior mesenteric

Right/left common iliac

Right/left internal iliac

Right/left external iliac

## **Lower Limb**

- Femoral
  - Deep femoral
  - Popliteal
    - Posterior tibial
    - Anterior tibial
  - Dorsalis pedis

## **Upper Limb**

- Axillary
- Brachial
  - Ulnar
  - Radial
    - Superficial palmar arch
    - Digital
- Deep palmar arch

## **Neck, Head, and Brain**

- Right/left external carotid
  - Facial
  - Superficial temporal
- Right/left vertebral
  - Basilar
- Right/left internal carotid
  - Middle cerebral
  - Anterior cerebral
    - Anterior communicating
  - Posterior communicating

Posterior cerebral

Circle of Willis

## **The Venous System**

### **Torso**

Superior vena cava

    Right/Left brachiocephalic

        Right/left internal jugular

        Right/left subclavian

            Right/left internal jugular

Azygos

    Intercostals

    Hemiazygos

        Intercostals

Inferior vena cava

    Renal veins

        Left ovarian/testicular (gonadal)

    Right ovarian/testicular

    Right/left common iliac

        Right/left internal iliac

        Right/left external iliac

### **Lower Limb**

Femoral

    Great saphenous

    Popliteal

    Posterior tibial

    Anterior tibial

### **Upper Limb**

Axillary

Basilic

Brachial

Ulnar

Radial

Cephalic

Median cubital

## **Neck, Head, and Brain**

Subclavian veins

Internal jugular

Facial

Sigmoid sinus

Transverse sinus

Junction of sinuses

Straight sinus

Inferior sagittal sinus

Superior sagittal sinus

External jugular

## **The Hepatic Portal System**

Hepatic veins

Hepatic portal vein

Superior mesenteric vein

Splenic vein

Inferior mesenteric vein

## **Fetal Circulation**

Placenta

Umbilical cord

Umbilicus

Umbilical vein

Ductus venosus

Inferior vena cava

Foramen ovale

Ductus arteriosus

Aortic arch

Pulmonary trunk

Umbilical arteries

Internal iliac arteries