

HD-20: Development of the Cardiovascular System II

Learning Objectives

1. Understand the formation of the aortic arches and their major derivatives:
 - Ascending aorta
 - Aortic arch
 - Branchiocephalic artery
 - Carotid arteries
 - Subclavian arteries
 - Pulmonary arteries
 - Ductus arteriosus
2. Understand the key developmental steps during the formation of the arterial vasculature.
3. Describe the vitelline, umbilical, and cardinal venous systems including:
 - Superior vena cava
 - Inferior vena cava
 - Portal vein
 - Ductus venosus
4. Understand the purpose and the development of the lymphatic system.
5. Outline the physiological changes that occur during the transition from fetal circulation to post-natal life.
6. Be able to discuss the origins and the significance of anomalies of aortic arches, arterial and venous systems, and lymphatic drainage.

Reading Assignment

Larsen, Human Embryology 4th Edition: Chapter 13, pages 385-433.