Happy week 12! This week we will only be covering the major arteries, veins, and lymphatics because of DIA. Enjoy your day off and come to group tutoring on Thursday to get in some extra study/review time before the quiz on Friday!

Remember: The tutoring center offers free individual and group tutoring for this course. Our group tutoring session will be Thursdays from 6:45-7:45 PM in the basement of Sid Rich, room 74. You can reserve your spot at https://baylor.edu/tutoring. Hope to see you there!

Keywords: Arteries, Veins, Circle of Willis, Lymphatic system

**Topic of the Week: Arteries, Veins, and Lymphatics**

**Arteries**

**Subclavian**
- **Vertebral artery**: travels through the transverse foramina of cervical vertebrae
- **Internal thoracic artery**: supplies anterior chest wall and breasts
  - Branches into anterior intercostal arteries
- **Thyrocervical trunk**
  - Branches into **inferior thyroid**, suprascapular, and transverse cervical

**External carotid** (Some Anatomists Like Freaking Out Poor Medical Students)
- **Superior thyroid**
- **Ascending pharyngeal**
- **Lingual**
- **Facial**
- **Occipital**
- **Posterior auricular**
- **Maxillary**
  - Sphenopalatine
  - **Middle meningeal**
  - Inferior alveolar
- **Superficial temporal**

**Axillary** This image was taken from ResearchGate.

Divided into 3 parts:
1. **1st part (proximal to pectoralis minor)**
   - supreme thoracic
2. **2nd part (posterior to pectoralis minor)**
   - thoracoacromial
   - lateral thoracic
3. **3rd part (distal to pectoralis minor)**
   - anterior and posterior humeral circumflex
   - subscapular
   - **thoracodorsal**
**Femoral artery:** supplies muscles of the thigh
- Deep femoral artery
  - Medial circumflex femoral: main artery supplying the head and neck of the femur
  - Lateral circumflex femoral

The **popliteal artery** is a continuation of the femoral artery.
- Anterior tibial
- Posterior tibial
- Genicular arteries (knees)

**Veins**

**Superficial veins of the upper limb:**

**Superficial veins of the lower limb:**

![Superficial veins of the upper limb](www.uptodate.com)
![Superficial veins of the lower limb](TeachMeAnatomy.info)

**Veins of the thorax:**
- Azygos vein: drains the right side
- Hemiazygos vein
- Accessory hemiazygos vein

**Deep veins of the upper limb:** (run with the artery with the same name)
- Brachial
- Axillary
- Subclavian

**Deep veins of the lower limb:** (run with the artery with the same name)
- Femoral
- Deep femoral
- Popliteal
- Anterior and posterior tibial
The **right lymphatic duct** drains the area colored in purple.
The **thoracic duct** drains the area colored in yellow.

The **cisterna chyli** drains lymph from the lower limbs and intestines.

Drainage follows this flow: 2 lumbar trunks + intestinal trunk → cisterna chyli → thoracic duct

---

**Highlight #1: Circle of Willis**

The main arteries contributing to the Circle of Willis are the **internal carotid** and **vertebral arteries**.

The arteries that make up the Circle of Willis are:

1. Anterior cerebral
2. Anterior communicating
3. Posterior cerebral
4. Posterior communicating
5. Internal carotid
Highlight #2: Dural Venous Sinuses

This video can help you familiarize yourself with the spatial arrangement of the dural venous sinuses: https://www.youtube.com/watch?v=TX5Fxrg4SD4

This image was taken from step1.medbullets.com.

The dural venous sinuses drain into the internal jugular vein.
- Superior and inferior sagittal sinuses
- Straight sinus
- Transverse sinus
- Sigmoid sinus

Week 12 Knowledge Checkpoint:

1. The brachiocephalic artery divides to form the right common carotid and the ____ ____ artery.
   a. Left subclavian
   b. Right subclavian
   c. Left common carotid
   d. Right thoracic artery

2. What structure does the vertebral artery travel through?
   a. Vertebral foramen
   b. Foramen magnum
   c. Intervertebral foramen
   d. Transverse foramen

3. Which lymphatic duct drains lymph from the right leg?
   a. Right lymphatic duct
   b. Thoracic duct

4. Name the indicated sinus in this image from Dartmouth.
THINGS YOU MAY STRUGGLE WITH!

1. **Branches of arteries**: Draw a flow chart, starting at the heart, with all the branches of every artery. This will help you visualize the branches and condense the information into an easier to see format. Once you get the general idea of what branches where, look at schematic images and angiograms to familiarize yourself with more realistic structures. Acland’s is always a good resource!

2. **Circle of Willis**: Look at angiograms and models of this in Complete Anatomy! There is a feature that lets you look at an angiogram of the structures side by side with the model.
DON'T FORGET! Our group tutoring session will be Thursdays from 6:45-7:45 PM in the basement of Sid Rich, room 74. You can reserve your spot at https://baylor.edu/tutoring.

Answers
1. b
2. d
3. b
4. transverse sinus