NR 23 Lecture Outline

Assessment of the Cardiovascular System Part II
Arteries, Veins and Lymphatics

Arteries

- Temporal Artery

- Carotid Artery

- Arteries in the arms
  - Brachial artery
  - Radial artery
  - Ulnar artery

- Arteries in the legs
  - Femoral artery
  - Popliteal artery
  - Anterior tibial artery
  - Dorsalis pedis artery
  - Posterior tibial artery

Note its pulse rate, rhythm, equality and force or strength:
- 4+ bounding—very strong force
- 3+ increased—greater than normal force
- 2+ Normal—easily palpated
- 1+ Weak or thready—hard to palpate may fade in and out
- 0 Absent
Pulse Variations

1. Pulsus Alternans

2. Pulsus bisferiens

3. Pulsus paradoxus

4. Bigeninal pulse

5. Water-hammer

Veins

- Neck Veins- Jugular veins
  - Internal jugular vein
  - External jugular vein

- Veins in the arms
  - Superficial veins
  - Deep veins
Veins in the leg

Deep veins - Femoral and Popliteal veins

Superficial veins - Great and Small saphenous

Perforators

How veins work:

**Venous Flow**

In order to have efficient return the veins need:

Risk factors for venous disease

1.

2.

3. Edema
Venous stasis

Varicose veins

DVT

Lymphatics

There are 2 lymphatic drainage systems:

1. right lymphatic duct

2. thoracic duct

To check the functioning of the lymphatic system we palpate superficial nodes at the:

Head and neck

Axillary (discussed in the breast lecture)

Epitrochlear nodes

Inguinal nodes
Physical Assessment of the Vascular System

Equipment needed:

Assessment used:

**Subjective History:**
1. __________________________________________________________
2. __________________________________________________________
3. __________________________________________________________________
4. __________________________________________________________________
5. __________________________________________________________________
6. __________________________________________________________________

**ARMS**

**Inspection**
The arms observing:
  - Skin color
  - Hair distribution
  - Edema
  - Abnormal venous patterns
  - Condition of finger nails (clubbing)

**Palpation**
  - Capillary refill-
  - Skin temperature of the arms
  - Palpate peripheral arteries
Radial arterial pulses

Ulnar arterial pulse

Brachial arterial pulse

Perform the Modified Allen Test

Epitrochlear node

LEGs

**Inspection**
- Color
- Hair distribution
- Venous pattern
- Swelling
- Ulcers
- Lesions
- Condition of toenails
**Palpate**

Temperature

Homans sign

**Peripheral arteries**
Femoral
  inguinal lymph nodes

Popliteal

Posterior tibial pulse

Dorsalis pedis

Assess for edema of the lower extremities- Classify according to the level of indentation

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