Procedure #4: Assessing a Peripheral Pulse

PURPOSES

- To establish baseline data for subsequent evaluation
- To identify whether the pulse rate is within normal range
- To determine the pulse volume and whether the pulse rhythm is regular
- To determine the equality of corresponding peripheral pulses on each side of the body
- To monitor and assess changes in the client's health status
- To monitor clients at risk for pulse alterations (e.g., those with
- a history of heart disease or experiencing cardiac arrhythmias, hemorrhage, acute pain, infusion of large volumes of fluids, or fever)
- To evaluate blood perfusion to the extremities

Equipment

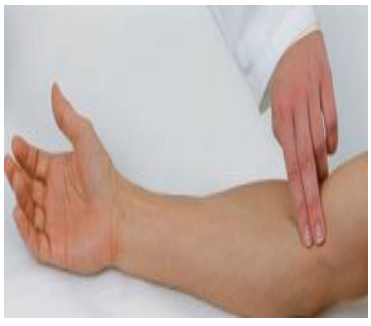
- Clock or watch with a sweep second hand or digital seconds indicator
- If using a DUS: transducer probe, stethoscope headset (some models), transmission gel, and tissues/wipes

Performance

1. Prior to performing the procedure, introduce self and verify the client's identity using agency protocol. Explain to the client what you are going to do, why it is necessary, and how he or she can participate. Discuss how the results will be used in planning further care or treatments.
2. Perform hand hygiene and observe appropriate infection prevention procedures.
3. Provide for client privacy.
4. Select the pulse point. Normally, the radial pulse is taken, unless it cannot be exposed or circulation to another body area is to be assessed.

A Radial

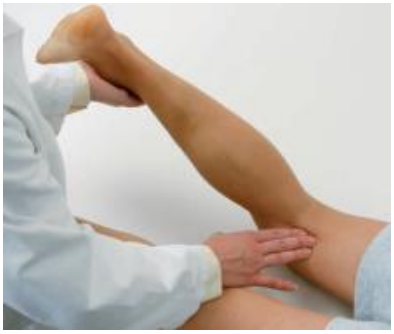
B Brachial



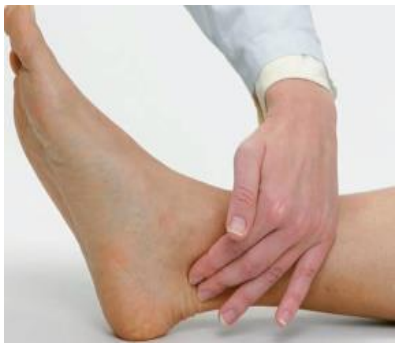
C
Carotid

D
Femoral

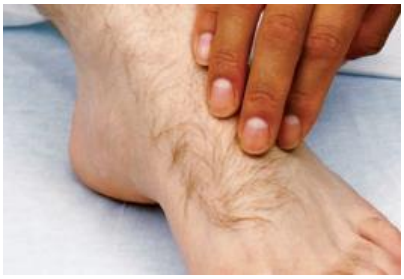
E
Popliteal



F
Posterior tibial



G
Dorsalis pedis



5. Assist the client to a comfortable resting position. When the radial pulse is assessed, with the palm facing downward, the client's arm can rest alongside the body or the forearm can rest at a 90-degree angle across the chest. For the client who can sit, the forearm can rest across the thigh, with the palm of the hand facing downward or inward.

6. Palpate and count the pulse. Place two or three middle fingertips lightly and squarely over the pulse point.

- Count for 15 seconds and multiply by 4. Record the pulse in beats per minute on your worksheet. If taking a client's pulse for the first time, when obtaining baseline data, or if the pulse is irregular, count for a full minute. If an

irregular pulse is found, also take the apical pulse.

7. Assess the pulse rhythm and volume.
   - Assess the pulse rhythm by noting the pattern of the intervals between the beats. A normal pulse has equal time periods between beats. If this is an initial assessment, assess for 1 minute.
   - Assess the pulse volume. A normal pulse can be felt with moderate pressure, and the pressure is equal with each beat. A forceful pulse volume is full; an easily obliterated pulse is weak. Record the rhythm and volume on your worksheet.
8. Document the pulse rate, rhythm, and volume and your actions in the client record. Also record in the nurse's notes pertinent related data such as variation in pulse rate compared to normal for the client and abnormal skin color and skin temperature.