PURPOSE:
To assess peripheral circulation in the lower extremities.

CONSIDERATIONS:
1. Use a head to toe approach with side-to-side (left and right) comparison.
2. Check pulses for presence or absence, amplitude, rate, rhythm and equality (left and right).
3. Decrease in pulse amplitude may indicate peripheral arterial disease.
4. Note color, temperature, texture and sensation of skin and nailbeds.

EQUIPMENT:
Clock/timer with second hand

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Choose Pulse location.
   a. Femoral Pulse
      (1) Position patient flat on back.
      (2) Palpate at juncture of thigh and torso (inguinal crease) midway between anterior superior iliac spine and symphysis pubis.
      (3) Use two hands, one on top of the other. This may facilitate palpating the femoral pulse, especially in obese patients.
      (4) Count the beats for 1 minute.
   b. Popliteal Pulse:
      (1) Position patient with knee slightly flexed, the leg relaxed.
      (2) Press the fingertips of both hands deeply into popliteal regions, slightly lateral to the midline.
      (3) If the popliteal pulse is not palpable with this approach, position patient on the abdomen, flex the leg 45 degrees at the knee and palpate deeply for the pulse.
      (4) Count the beats for 1 minute.
   c. Posterior Tibial Pulse:
      (1) Palpate at inner aspect of posterior malleolus (in the groove between the malleolus and the Achilles tendon).
      (2) If the pulse is difficult to palpate, try passive dorsiflexion of the foot to make the pulse more accessible.
      (3) Count the beats for 1 minute.
   d. Dorsalis Pedis Pulse:
      (1) Palpate top of foot, lateral to the extensor tendon of the big toe.
      (2) Palpate this pulse very gently; too much pressure will obliterate it.
      (3) Count the beats for 1 minute.

AFTER CARE:
1. Document findings in patient's record.
   a. Pulse rate.
   b. Amplitude.
      Pulse amplitude may be quantified using a 0 to 4 scale:
      0   = absent
      1+  = diminished, barely palpable, easy to obliterate
      2+  = easily palpable, normal
      3+  = full, increased
      4+  = strong, bounding, cannot be obliterated
   c. Rhythm.
2. Report to physician any abnormalities, which reflect changes from the patient's baseline pulse.

REFERENCES: