

## A-130 Blood Pressure

### Purpose

Determine the integrity of the client's heart, arteries, and arterioles.

Evaluate the client's vital functions.

Aid in the evaluation of the treatment regime.

### Applies To

Registered Nurses

Licensed Practical/Vocational Nurses

Other (*Identify*): \_\_\_\_\_

### Equipment/Supplies

- Stethoscope
- Sphygmomanometer
- Thigh cuff (if client is obese)
- Small cuff for pediatric or very small clients

*Note: Ideally, the width of the cuff should be 40% of the circumference (or 20% wider than the diameter) of the midpoint of the limb on which the cuff is to be used. Length of the enclosed bladder should be approximately twice the recommended width.*

### Procedure

#### Arm Blood Pressures:

1. Wash hands. Refer to the hand washing procedure.
2. Support arm at heart level, palm up.  
If arm is not supported, the client may perform isometric exercises which can elevate blood pressure by 10%. Placement below the heart level gives a false low reading.
3. Remove constrictive clothing, palpate brachial artery, position the cuff one inch above antecubital space, and center bladder of cuff above the artery.  
Avoid taking a blood pressure on an arm with IV or arm injury, or on a client with dialysis shunt and/or mastectomy.
4. Wrap cuff evenly and snugly. A loose-fitting cuff gives a false high reading.
5. Place stethoscope over artery in antecubital space.

6. Inflate cuff to 30 mm Hg above the point at which brachial pulse disappears. Release bulb slowly.
7. Note the point on the manometer when the first clear sound is heard. This indicates systolic pressure.
8. Note the point at which a muffled sound occurs. This is recommended by the American Heart Association (AHA) as an indicator of diastolic pressure in children.
9. Note the point at which the sound disappears. This is recommended by the AHA as an indicator of diastolic pressure in adults.
10. Inform the client of the reading, if appropriate.
11. Wash hands.

### **Leg Blood Pressures**

1. Wash hands. Refer to the Hand Washing procedure.
2. Assist the client into the prone position. If unable to assume position, assist to supine position with knee slightly flexed.
3. Remove constricting clothing.
4. Locate popliteal artery behind the knee.
5. Apply large cuff one inch above artery around the posterior aspect of the middle thigh.
6. Follow steps 5 to 12 of above procedure using popliteal artery.
  - a. Systolic pressures in legs may be 10 to 40 mmHg higher than in upper extremities because of pressure for blood to reach the peripheral vessels.
  - b. Diastolic pressure will be the same or lower than in the arm.
7. Note systolic and diastolic pressures.
8. Assist the client to a comfortable position.
9. Wash hands. Refer to the Hand Washing procedure.

### **Documentation Guidelines**

Document in the clinical record:

1. Results.
2. Clinical assessment information pertinent to the blood pressure reading.
3. Site used and activity level of client prior to reading as appropriate.
4. Actions taken including MD contact if indicated to report results.

### **Related Procedures**

None

**Policy History**

Approval Date	11/1/2009
Approved By	Anne Tyson, Herman Pippin, Sandra Hill
Revision Date	12/31/2009
Approved by	Anne Tyson, Herman Pippin, Sandra Hill
Revision Date	
Approved by	
Revision Date	
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