

POLICY & PROCEDURE



TITLE: Blood Pressure				
Scope/Purpose: To create a standard process for assessing blood pressure. To ensure blood pressure measurements are accurate and response to blood pressure readings is appropriate for situation.				
Division/Department: All Clinics (Nursing/Dental)			Policy/Procedure #:	
Original Date: July 2015			_x_New ___Replacement for:	
Date Reviewed:	Date Revised:	Implementation:	CPIC Approved:	Board Approved:
			07/22/2014	
Responsible Party: Director of Nursing				

DEFINITIONS:

1. **BLOOD PRESSURE** is the force of the blood pushing against the artery walls. Adequate pressure within arteries is important to allow blood to be pumped throughout the body to deliver oxygen and other nutrients to areas of the body.
 - a. A blood pressure reading measures pressures within the arteries at two different times. The first reading, **SYSTOLIC** pressure, measures when the heart first contracts pumping blood to the body through the arteries.
 - b. The second reading, **DIASTOLIC** pressure, measures the pressure within the arteries when the heart is receiving blood returning to the body.
2. **HYPERTENSION**, a chronic condition of high blood pressure, damages blood vessels and organs. Complications of hypertension include heart disease, kidney (renal) disease, hardening of the arteries (atherosclerosis or arteriosclerosis), eye damage, stroke, and eclampsia, a life-threatening complication for pregnant women.
3. **HYPERTENSIVE CRISIS**, an extremely high blood pressure situation, can be:
 - a) An **URGENT** situation (ADULT BP systolic 180 or higher or diastolic reading 110 or higher) which can be managed by readjustment or additional dosing of medications OR
 - b) An **EMERGENT** situation (BP exceeds 180 systolic or 120 diastolic) where blood pressure reaches levels that are damaging organs. Symptoms of organ damage are chest pain, shortness of breath, back pain, numbness/weakness/change in vision or difficulty speaking.
4. **HYPOTENSION**, a condition of low blood pressure that can cause symptoms of dizziness, fainting, blurred vision, unusual thirst, nausea, cold/clammy skin, rapid or shallow breathing may indicate a medical problem.
5. A **SPHYGMOMANOMETER** is the device used to measure blood pressure. HealthPoint uses digital and aneroid (gauge) type sphygmomanometers.

POLICY: HealthPoint’s standard of practice is for all patients, three (3) years of age and older, to have blood pressure assessed at provider or nurse assessment visits. While BP assessments are not required for ‘immunization or lab only’ visits, HealthPoint expects staff to assess blood pressure and follow protocols

outlined in Standing Orders Policies titled “Urgent Assessment”, “Chest Pain” and “Emergency Response” should a patient exhibit any symptoms of distress or illness.

PROCEDURE:

A. **TECHNIQUE:** Follow these guidelines when assessing Blood Pressure using digital and aneroid (gauge) sphygmomanometers.

1. **PREPARE THE PATIENT:**

- a. Make sure the patient is relaxed and in a comfortable position, preferably sitting in a chair or lying on the exam table, with back supported and legs and ankles uncrossed. If the patient is sitting, the arm should be positioned so it is level with their heart (meaning against their body, and not extended).
- b. Explain the procedure; inform the patient the cuff will ‘tighten’ when inflated but will not hurt/harm him/her.
- c. Move or remove any clothing which interferes with the blood pressure cuff or your stethoscope.

2. **CHOOSE THE PROPER CUFF SIZE:**

- a. Wrap the cuff around the patient’s arm. (Use the INDEX line to determine if the patient’s arm circumference falls within the RANGE area.)
- b. If the cuff barely secures, or if it overlaps excessively, choose a smaller or larger cuff as appropriate for the patient’s arm size.

3. **SECURE THE CUFF ON THE PATIENT’S ARM:**

- a. Wrap the cuff snugly around the upper arm with the cuff’s lower edge one inch above the inner elbow (antecubital fossa).
- b. The cuff should be positioned in such a manner the tubing from the cuff flows downward, unknicked, from the inner elbow to the wrist

4. For an **ELECTRONIC (DIGITAL) SPHYGMOMANOMETER**, turn the machine on and record the reading.

5. For a **ANEROID (GAUGE) SPHYGMOMANOMETER**, do the following:

- a. Position (and lightly press) the bell of the stethoscope slightly under the blood pressure cuff inside the elbow (antecubital fossa / brachial artery area).
- b. Rapidly inflate the cuff to 180 – 200 mmHg. Release air from the cuff at a moderate rate of 3mm/sec.
- c. Listen with the stethoscope and simultaneously observe the sphygmomanometer. The first knocking sound (Korotkoff) is the subject's systolic pressure. When the knocking sound disappears, that is the diastolic pressure (such as 120/80).

B. RECORDING:

1. If the initial reading is ‘normal’ and less than 140/90, record this in the Vital Sign section of eCW (electronic health record).
2. If the first blood pressure reading has systolic greater than 140 and/or diastolic greater than 90:
 - a. Document this blood pressure in the note section of the eCW (electronic health record) visit note

- b. Retake the blood pressure in fifteen (15) or 20 (twenty) minutes and record the lower of the blood pressure readings in the Vital Sign section of eCW (electronic health record) visit note.

C. PROVIDER NOTIFICATION :

1. **IMMEDIATELY NOTIFY PROVIDER** should a patient's blood pressure be **greater than or equal to 180/120** and follow **STANDING ORDERS – URGENT ASSESSMENT policy** regarding **'worrisome signs'**.
 - a. If the patient has any **worrisome signs including** physical discomfort, shortness of breath, color change, emotional distress), ensure the **Provider assesses the patient BEFORE THE PATIENT LEAVES THE CLINIC.**
 - b. **In the absence of worrisome signs** (physical discomfort, shortness of breath, color change, emotional distress), **SCHEDULE AN APPOINTMENT** for the patient to be seen **within seventy two (72) hours**
2. **VERBALLY NOTIFY PROVIDERS** should a patient's blood pressures remain high (systolic above 180 and diastolic equal or greater than 90).
3. **VERBALLY NOTIFY PROVIDER AT TIME OF VISIT OF SYMPTOMATIC HYPOTENSION** (blood pressure with systolic reading less than 90 and diastolic less than 60) at time of visit.

D. REGARDING BLOOD PRESSURE FOR CHILDREN: Per the American Heart Association; "Normal is relative" as 'normal' calculation is based upon a child's gender, age and height.

1. The upper limit for normal systolic pressure in kids aged three to five will range from 104 to 116, depending on height and gender. The upper limit for diastolic pressure will range from 63 to 74.
 - a. For a three-year-old boy, normal systolic pressure is 104 at the 5th percentile for height, and 113 for the 95th percentile. Diastolic pressure ranges from 63 to 67. At four, the range is 106 to 115 for systolic pressure, and 66 to 71 for diastolic pressure. At five, it's 108 to 116 for systolic and 69 to 74 for diastolic.
 - b. For a three-year-old girl, systolic pressure ranges from 104 at the 5th percentile for height to 110 at the 95th percentile, while diastolic pressure ranges from 65 to 68. At four years old, the systolic range is 105 to 111 and the diastolic range is 67 to 71. At five, the systolic range is 107 to 113 and the diastolic range is 69 to 73.
2. Children aged six to nine range from 108 to 121 for the upper limit of normal systolic pressure, depending on height and gender, and 71 to 81 for diastolic pressure.
 - a. For boys, at six years old, the range for systolic pressure is 109 at the 5th percentile for height, to 117 at the 95th percentile, and the diastolic range is 72 to 76. At seven years old, systolic pressure ranges from 110 to 119 and diastolic pressure from 74 to 78. At eight, the systolic range is 111 to 120 and diastolic is 75 to 80. At nine, systolic pressure ranges from 113 to 121 and diastolic from 76-81.

- b. For a six-year-old girl, systolic pressure ranges from 108 at the 5th percentile for height to 114 at the 95th percentile, and diastolic ranges from 71 to 75. At seven years old, her systolic pressure will be 110 to 116, and her diastolic pressure 73 to 76. At eight, the systolic range is 112 to 118, and the diastolic range is 74 to 78. At nine, the systolic pressure ranges from 114 to 120, while the diastolic pressure ranges from 75 to 79.
3. Children that are 10 to 12 years old have an upper limit of normal systolic pressure that ranges from 114 to 127, depending on height and gender, and a diastolic pressure that ranges from 77 to 83.
 - a. A 10-year-old boy has a systolic pressure range of 114 to 123 and a diastolic range from 77 to 82. At 11, he has a systolic range of 116 to 125 and a diastolic range of 78 to 83. At 12, his systolic pressure ranges from 119 to 127 while his diastolic pressure ranges from 79 to 83.
 - b. For girls, a 10-year-old has a normal systolic pressure between 116 and 122, and a normal diastolic pressure between 77 and 80. At 11, her systolic range is 118 to 124 and her diastolic range 78 to 83. At 12, her systolic pressure ranges from 120 to 126, while her diastolic pressure ranges from 79 to 82.

RELATED POLICY:

STANDING ORDERS – URGENT ASSESSMENT

REFERENCES:

www.heart.org/HEARTORG/conditions

www.MedicineNet.com

www.hopkinsmedicine.org

www.practicalclinicalskills.com

REQUIRED BY:

(Leave blank if none)

ATTACHMENTS/ENCLOSURES:

(Leave blank if none)

POLICY/PROCEDURE TRACKING FORM (to be added as last page of each P&P for documentation of changes)

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