



SCHOOL WELLNESS PROGRAM STANDING ORDER ESSENTIAL ELEMENTS: BLOOD PRESSURE SCREENING

THIS DOCUMENT IS TO BE USED AS A GUIDANCE TOOL IN DEVELOPING STANDING ORDERS FOR BLOOD PRESSURE SCREENING IN SCHOOL WELLNESS PROGRAMS.

Definition:

Blood pressure levels are to be determined based on three factors: gender, age, and height.

Hypertension Definitions of BP Categories and Stages

For Children Aged 1 < 13 y	For Children Aged > 13 Y
Target BP: <90 th percentile*	Target BP: <120/<80 mmHg
Elevated BP: > 90 th percentile to <95 th percentile or 120/80 mm Hg to 95th percentile (whichever is lower)	Elevated BP: 120/<80 to 129/ mm Hg
Stage 1 HTN: > 95 th percentile to < 95 th percentile + 12 mmHg, or 130/80 to 139/89 mm Hg (whichever is lower)	Stage 1 HTN: 130/80 to 139/89 mm Hg
Stage 2 HTN: > 95 th percentile + 12 mm Hg, or > 140/90 mm Hg (whichever is lower)	Stage 2 HTN: > 140/90 mm Hg

AAP Subcommittee on Screening and Management of High Blood Pressure in Children

<http://pediatrics.aappublications.org/content/140/3/e20171904>

* Find percentile tables in the reference above

Supplies:

Oscillometric (calibrated machine that has been validated for use in the pediatric population) or mercury or aneroid sphygmomanometer (auscultatory).

Stethoscope if auscultatory.

Procedures Include:

1. Frequency of BP screening:
 - a. Annual for healthy children.
 - b. Identification of clients who need a BP every visit, such as, children with obesity, renal disease, diabetes, aortic arch coarctation, or those taking medications known to increase BP (decongestants, caffeine, stimulants for attention deficit/hyperactivity disorder, hormonal contraception, tricyclic antidepressants).
2. Measurement of BP:
 - a. Right arm unless atypical aortic arch anatomy.
 - b. Appropriate size cuff (thigh cuff for use in children with severe obesity). Bladder length 80 – 100% of the circumference of the arm and width at least 40%. Arm at heart level.
 - c. Seated with back supported and feet uncrossed at floor.
 - d. If initial BP is elevated (>90th percentile) two additional measurements should be performed at the same visit and then average the measurements.
3. Contact parent/guardian when BP is not in the target range and refer to PCP for a formal evaluation. Utilize the *Simplified Blood Pressure Table* (below) for referral criteria. If BP reading is at the stage 2 HTN level and the client is symptomatic, or the BP is > 30 mm Hg above the 95th percentile (or > 180/120 mm Hg in an adolescent), refer to an immediate source of care, such as an emergency department.
 - a. Provide tips for parents and students that promote health, sleep, physical activity and nutrition (include a variety of fruits and vegetables, whole grain products, fat-free or low-fat milk in the diet each day).
 - b. Risk assessment for other contributors to hypertension, such as, tobacco exposure, inactivity, poor nutrition.
4. Documentation includes subjective/objective findings, interventions, client/parent education, follow-up plan, referral to PCP when appropriate.

Simplified Blood Pressure Table

Screening BP Values Requiring Further Evaluation

	BP, mm Hg	BP, mm Hg	BP, mm Hg	BP, mm Hg
	Boys	Boys	Girls	Girls
Age in Years	Systolic	DBP	Systolic	DBP
1	98	52	98	54
2	100	55	101	58
3	101	58	102	60
4	102	60	103	62
5	103	63	104	64
6	105	66	105	67
7	106	68	106	68
8	107	69	107	69
9	107	70	108	71
10	108	72	109	72
11	110	74	111	74
12	113	75	114	75
>13	120	80	120	80

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References:

American Academy of Pediatrics Subcommittee on Screening and Management of High Blood Pressure in Children (2017). Clinical practice guideline for screening and management of high blood pressure in children and adolescents. *Pediatrics*. 140(3), 1-72. DOI: 10.1542/pedds.2017-1904

American Heart Association (2016). High blood pressure in children. Retrieved from:

<https://www.heart.org/en/health-topics/high-blood-pressure/why-high-blood-pressure-is-a-silent-killer/high-blood-pressure-in-children>