

PRACTICAL PEARL: HYPERTENSION

<p>INTRODUCTION</p>	<ul style="list-style-type: none"> Elevated blood pressure in childhood and adolescence is associated with hypertension in early adulthood, and poses a risk for premature atherosclerotic disease. Children with higher risk include those with chronic kidney disease, diabetes, transplantation of a solid organ, obstructive sleep apnea, repaired coarctation of the aorta, certain genetic syndromes, and a history of prematurity. New guidelines for screening for hypertension include updated reference tables based on children of normal weight http://pediatrics.aappublications.org/content/early/2017/08/21/peds.2017-1904 										
<p>INITIAL EVALUATION AND MANAGEMENT BY PRIMARY CARE</p>	<ul style="list-style-type: none"> BP should be measured at each well child encounter starting at 3 years of age. If a child has one of the higher risk conditions mention above BP should be checked at every health care encounter. Trained health care professionals in the office setting should make a diagnosis of HTN if a child or adolescent has auscultatory BP readings ≥ 95th percentile at 3 different visits. Updated Definitions of BP Categories and Stages <table border="1" data-bbox="358 737 1468 1050"> <thead> <tr> <th>For Children Aged 1–13 y</th> <th>For Children Aged ≥ 13 y</th> </tr> </thead> <tbody> <tr> <td>Normal BP: < 90th percentile</td> <td>Normal BP: $< 120 / < 80$ mm Hg</td> </tr> <tr> <td>Elevated BP: ≥ 90th percentile to < 95th percentile or 120/80 mm Hg to < 95th percentile (whichever is lower)</td> <td>Elevated BP: 120/< 80 to 129/< 80 mm Hg</td> </tr> <tr> <td>Stage 1 HTN: ≥ 95th percentile to < 95th percentile + 12 mmHg, or 130/80 to 139/89 mm Hg (whichever is lower)</td> <td>Stage 1 HTN: 130/80 to 139/89 mm Hg</td> </tr> <tr> <td>Stage 2 HTN: ≥ 95th percentile + 12 mm Hg, or $\geq 140 / 90$ mm Hg (whichever is lower)</td> <td>Stage 2 HTN: $\geq 140 / 90$ mm Hg</td> </tr> </tbody> </table> <ul style="list-style-type: none"> For elevated BP or stage 1 hypertension in low risk populations, lifestyle modifications should be implemented. Repeat BP measurement should be performed in the office. If still elevated, a right arm and lower extremity BP should be performed. Children and adolescents ≥ 6 years of age do not require an extensive evaluation for secondary causes of HTN if they have a positive family history of HTN, are overweight or obese, and/or do not have history or physical examination findings suggestive of a secondary cause of HTN 	For Children Aged 1–13 y	For Children Aged ≥ 13 y	Normal BP: < 90 th percentile	Normal BP: $< 120 / < 80$ mm Hg	Elevated BP: ≥ 90 th percentile to < 95 th percentile or 120/80 mm Hg to < 95 th percentile (whichever is lower)	Elevated BP: 120/ < 80 to 129/ < 80 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 $\geq 140 / 90$ mm Hg (whichever is lower)	Stage 2 HTN: $\geq 140 / 90$ mm Hg
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<p>WHEN TO REFER</p>	<ul style="list-style-type: none"> When a patient has had BP measurements by the auscultatory method > 95th percentile at 3 different visits. When elevated BP measurements have been obtained for over 1 year, or in high risk populations as above Stage 2 hypertension 										
<p>HOW TO REFER</p>	<ul style="list-style-type: none"> (413) 794-KIDS Pediatric Cardiology 										
<p>WHAT TO EXPECT FROM BAYSTATE CHILDREN'S HOSPITAL VISIT</p>	<ul style="list-style-type: none"> Appropriate evaluation and workup of hypertension which will include echocardiography for the assessment of LVH Management of hypertension with lifestyle modification in combination with medical therapy We will follow your patient until the BP is < 90th percentile or $< 130 / 80$ in adolescents > 13 years of age and then return to you for ongoing care. 										

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February 2018

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