Blood Pressure Screening Reference Guide

Adults ages ≥ 18 years of age [1]

BP Reading Category	Systolic mmHg (upper number)		Diastolic mmHg (lower number)	Action
Hypotensive	Less than 90	and	Less Than 60	Referral
Normal	Less Than 120	and	Less Than 80	none
Elevated	120-129	and	Less Than 80	Referral
High Blood Pressure Hypertension Stage 1	130-139	or	80-89	Referral
High Blood Pressure Hypertension Stage 2	140-180	or	90-120	Urgent Referral
On- Site Action Required for Blood Pressure Readings Below				
Hypertensive Crisis	Higher Than 180	and/or	Higher than 120	Immediate (Urgent) referral to Event On-site Medical Services

NOTE: BP reading is considered abnormal if either value (systolic or diastolic) is outside the normal range.

Children ages 1 to <13 years Blood Pressure Values[2]

BP Reading Category	Screening Result	Action
Normal BP	<90th	None
Elevated BP	>90th and <95th or 120/80mmHg to 95th percentile (whichever is lower)	Referral
Stage 1 HTN	Systolic and Diastolic BP >95th percentile to <95th percentile + 12mmHG OR 130/80 to 139/89 mmHg (whichever is lower)	Referral
Stage 2 HTN	Systolic or Diastolic BP >95th percentile or >140/90 mmHG (whichever is lower)	Urgent Referral

Children ages 13 to <18 years Blood Pressure Values[3]

BP Reading Category	Screening Result	Action
Normal BP	Less than 119 and less than 79	None
Elevated BP	120-79 to 129-79	Referral
Stage 1 HTN	130/80 to 139/89	Referral
Stage 2 HTN	≥140/90	Referral

**Any BP reading repeatedly at or above the systolic or diastolic values listed in table 2 requires further evaluation.*

On-Site Follow Up to Blood Pressure Results

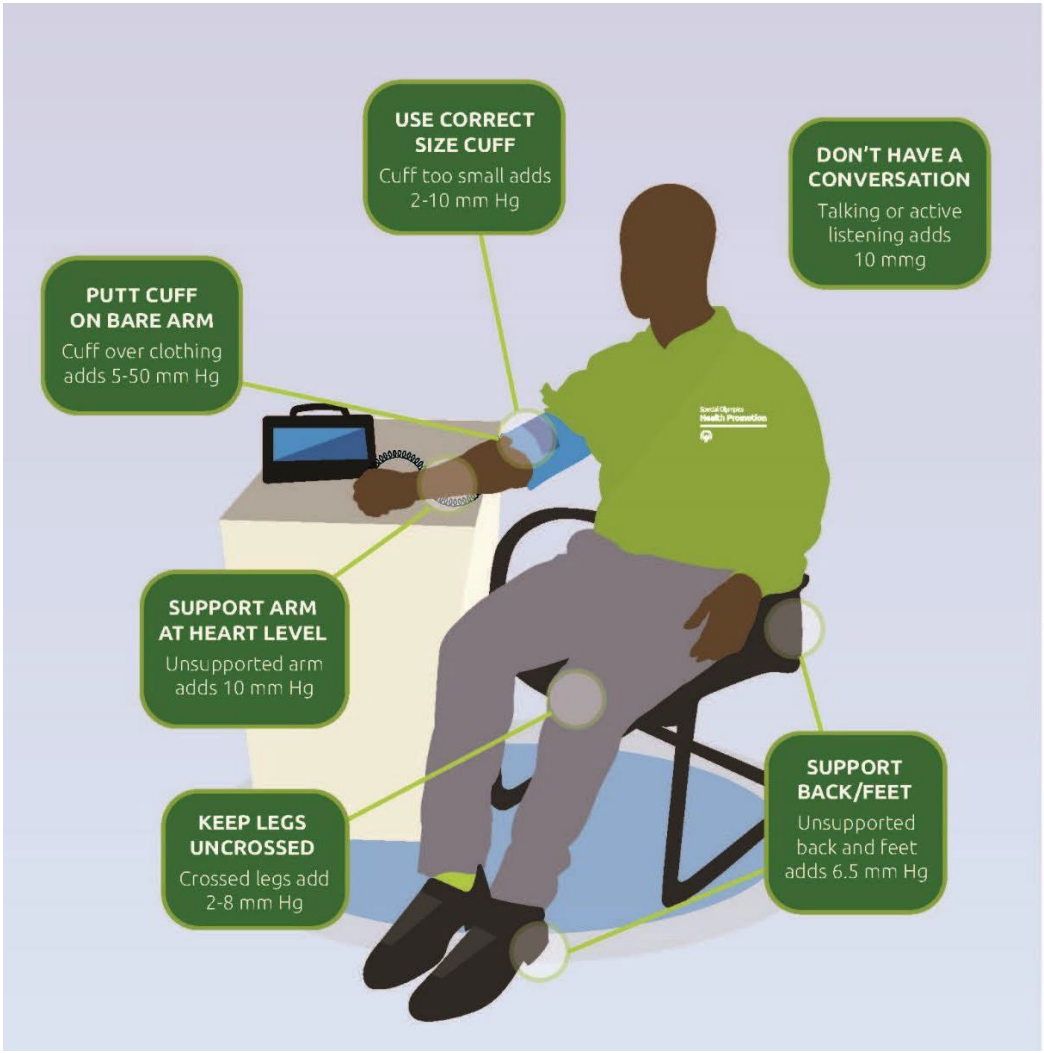
1. Test BP in right arm. If the right side is in normal range – you are done. No need to test left arm.
2. If the right side is abnormal, do the left arm. If the left confirms the right (either hypertensive or hypotensive), then you are done (*and referral is needed*).
    a. If the left is normal, but the right is not, then let the athlete rest, drink water, and redo the right. If right is now normal too, then the athlete is normal. If the right is persistently abnormal, then the right-side rules the diagnosis *(and referral is needed)*
    b. In the rare case that the left is more abnormal than the right, the most abnormal reading wins *(and referral is needed),* but we recommend you let the athlete rest, drink water, and reconfirm.
    c. If the right is more than 20 mm/hg greater than the left, not only is the athlete hypertensive, but they should be referred for a medical evaluation to rule out possible coarctation of the aorta *(referral required)*

Per SOI Policy, if the athlete is competing and in Hypertensive Crisis for repeated readings, you are required to notify the coach and send the athlete to the medical event staff for immediate medical clearance prior to competition.

References:

1. Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines, the 2017 Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults. November 2017. http://hyper.ahajournals.org/content/guidelines2017
2. Flynn JT, Kaelber DC, Baker-Smith CM, et al. Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents. Pediatrics. 2017;140(3):e20171904 (not available for free download)
3. Whelton, P. K., Carey, R. M., Aronow, W. S., Casey, D. E., Collins, K. J., Dennison Himmelfarb, C., ... & Wright, J. T. (2018). 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Journal of the American College of Cardiology*, *71*(19), e127-e248.

May 2024 update



6 SIMPLE STEPS TO GET AN ACCURATE **BLOOD PRESSURE READING**

The common positioning errors can result in inaccurate blood pressure measurement. Figures shown are estimates of how improper positioning can potentially impact blood pressure readings.

Sources:

Pickering, et al. Recommendations for Blood pressure Measurement in Humans and Experimental Animals Part 1. Blood Pressure Measurement in Humans. Circulation. 2005; 111: 697-716.

Handler, J. The importance of accurate blood pressure measurement. *The Permanente Journal/Summer* 2009/Volume 13 No. 351

This graphic was modfied from materials from American Medical Association and The John Hopkins University. The original content can be found at https://www.ama-assn.org/ama-johns-hopkins-blood-pressure-resources.

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