

When	Why	How
<ul style="list-style-type: none"> <li>All new patients</li> <li>Patients with a history of elevated blood pressure (BP)</li> <li>Returning patients who have not had their blood pressure taken in the last 12 months</li> <li>Prior to certain treatments** (see below) for patients with cardiovascular disease (CVD) risk factors, including hypertension, diabetes, dyslipidemia, smoking, and clinical obesity.</li> </ul>	<ul style="list-style-type: none"> <li>To screen for high or low blood pressure. By far, more concerns arise from blood pressure being too high, versus too low.</li> <li>As a measure of cardiovascular stress. Most hypertension (HTN) is asymptomatic until it has caused end-organ damage (to heart, brain, eyes, or kidneys), so screening is paramount.</li> <li>To identify contraindications to certain in-office treatments.</li> <li>To make recommendations for management and identify the urgency of any referral needed.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to LINCC How to Take Blood Pressure document.</li> </ul>
Interpretation of BP Readings		Management Considerations
<ul style="list-style-type: none"> <li>A diagnosis (dx) of HTN should only be assigned after averaging 4 or more in-office readings – 2 readings, at least 1 minute apart at one visit + 2 additional readings, at least 1 minute apart at a sequential visit.                             <ul style="list-style-type: none"> <li>Until HTN is confirmed, the dx “elevated BP reading” should be used.</li> </ul> </li> <li>Isolated systolic HTN is associated with increased stroke risk. Often due to pulse pressure &gt; 60 mm Hg (Pulse pressure = systole minus diastole).</li> </ul>		<ul style="list-style-type: none"> <li>Ideally, elevated BP measurements in the office should be confirmed by the patient at home prior to recommending HTN treatment.                             <ul style="list-style-type: none"> <li>Self-monitoring at home with arm BP cuff: 2 readings (separated by 1 minute), twice daily x 7 days; then averaged.</li> <li>Exception: BP in hypertensive crisis range needs immediate referral.</li> </ul> </li> </ul>

The table below shows blood pressure categorization and management guidelines as agreed upon by UWS faculty.

UWS Blood Pressure Guidelines for Adults (≥18-years-old)				
BP Category	Systolic mm Hg (upper number)		Diastolic mm Hg (lower number)	Management Strategy
Hypotensive	<90	Or	<60	<ul style="list-style-type: none"> <li>If asymptomatic, monitor at re-evaluation.</li> <li>If symptomatic, consider causes and referral depending on acuity and severity.</li> </ul>
Normal	90-119	And	60-79	<ul style="list-style-type: none"> <li>Monitor at least 1x/year.</li> </ul>
Elevated BP	120-139	Or	80-89	<ul style="list-style-type: none"> <li>Monitor at each re-evaluation exam.</li> <li>Encourage self-monitoring and lifestyle modifications.</li> <li>Recommend co-management with PCP for possible medication if <a href="#">PREVENT*</a> calculator CVD risk &gt;10%.</li> </ul>
Stage 1 Hypertension	140-159	Or	90-99	<ul style="list-style-type: none"> <li>Monitor at each re-evaluation exam.</li> <li>Report this to clinician prior to initiating certain treatments.**</li> <li>Encourage self-monitoring and lifestyle modifications.</li> <li>Refer to PCP for co-management, probable pharmacology.</li> </ul>
Stage 2 Hypertension	≥160	Or	≥100	<ul style="list-style-type: none"> <li>Monitor at each re-evaluation.</li> <li>Report this to clinician prior to initiating certain treatments.**</li> <li>Encourage self-monitoring and lifestyle modifications.</li> <li>Requires co-management with PCP for pharmacology.</li> </ul>
Hypertensive Crisis	≥180	Or	≥120	<ul style="list-style-type: none"> <li>Report this immediately to clinician.</li> <li>Urgent evaluation and treatment needed, typically in the emergency department.</li> <li>If the patient also has symptoms of heart attack or stroke, call 911 for immediate transport.</li> </ul>
<p>*PREVENT (Predicting Risk of cardiovascular disease EVENTS) is a risk calculator from AHA/ACC, developed in 2024.</p> <ul style="list-style-type: none"> <li>It replaces the <a href="#">ASCVD</a> (AtheroSclerotic CardioVascular Disease) risk calculator from the AHA/ACC (2013), though either can be used.</li> <li>Compared to ASCVD, PREVENT is based on more recent data, from a larger pool of people, and adds metabolic and renal risk factors by asking about BMI (body-mass index) and eGFR (estimated glomerular filtration rate) while removing race.</li> </ul>				



### Chiropractic Treatment Considerations

- Mechanical spinal traction may not be appropriate for individuals with blood pressure at or above the Stage II hypertension range. Any BP readings  $\geq 140$  systolic or 90 diastolic should be reported to a clinician and other risk factors considered prior to initiating, as traction can increase blood pressure, based on limited evidence.
- Cervical manipulation is not contraindicated for BP  $<180/120$  mmHg, according to current evidence. However, it should not be performed in the case of a hypertensive crisis. Readings  $\geq 140$  systolic or 90 diastolic should be reported to a clinician and other risk factors considered. Cardiovascular risk factors, along with genetic factors, recent infection and minor trauma, are potential risk factors for cervical arterial dissection (CeAD). Evidence is overall low to very low certainty for associated CeAD risk factors, except for migraine and certain genetic traits. Clinical judgement based on evaluation of the whole patient is recommended.
- Refer to LINCC Cervical Arterial Dissection (CeAD) document for more information

### Guidelines and Management Tools

**These UWS guidelines are a composite of 4 other guideline systems currently in wide use which medical providers should be aware of:**

- AHA (American Heart Association), 2005. This is commonly used by cardiologists and the ACC (American College of Cardiology). They define the category of "Stage 1 Hypertension" earlier at  $\geq 130/80$  mm Hg. Useful if dealing with populations with higher cardiac risk.
- JNC7. Most used by primary care providers for the category definitions. Most consistent with UWS guidelines and taught in preclinical courses. Hypertension is defined as  $\geq 140/90$  mm Hg.
- JNC8. Most used by primary care providers for management strategies.
- Canadian guidelines (2025). Also define the category of "hypertension"  $\geq 130/80$  mm Hg, but management strategies are in line with the chart above.

**Other management tools and recommendations to be aware of:**

- HEARTS. Healthy-lifestyle counselling, Evidence-based treatment protocols, Access to essential medicines and technology, Risk-based cardiovascular disease management, Team-based care, Systems for monitoring. Developed by Kaiser Permanente, adopted by World Health Organization (WHO) and others.

### Potential ICD 10 Codes

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• <b>R03.0</b> = Elevated blood pressure reading</li><li>• <b>I10</b> = Essential (primary) hypertension (for Stage 1 &amp; Stage 2)*different codes if other known causes of the HTN</li><li>• <b>I16.9</b> = Hypertensive crisis, Unspecified (urgency or emergency)</li></ul> | <ul style="list-style-type: none"><li>• <b>O16.9</b> = During pregnancy - unspecified maternal hypertension, unspecified trimester *different final digits for known trimesters</li><li>• <b>I95.9</b> = Hypotension, unspecified</li><li>• <b>I95.1</b> = Orthostatic hypotension</li></ul> |
|--|--|

### Author(s)

- Jenny Nordeen, M.D.
- Heidi Olejnik, D.C.

### References

1. [AAFP Clinical Practice Guideline, July 2022](#)
2. AHA/ACC/etc. Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults, 2025.
3. [CMAJ. Hypertension Canada Guideline for the diagnosis and treatment of hypertension in adults in primary care, May 2025.](#)
4. Jacobs W, Wright DS, Pohlman K, Rosenbaum R, Hutten BA, Scholten-Peeters GG, et al. Risk factors for cervical artery dissection: a systematic review with meta-analysis. *Stroke and Vascular Neurology*. 2025;:svn-2025-004186. <https://doi.org/10.1136/svn-2025-004186>
5. *JAMA*. Screening for Hypertension in Adults – USU Preventive Services Task Force Reaffirmation Recommendation Statement. 2021 April 27; Volume 325, Number 16, page 1650-1656.
6. NEJM. [A New Cardiovascular Risk Calculator from the American Heart Association](#). June 2024.
7. Tsai CT, Chang WD, Kao MJ, Wang CJ, Lai PT. Changes in blood pressure and related autonomic function during cervical traction in healthy women. *Orthopedics*. 2011 Jul 7;34(7):e295-301. doi: 10.3928/01477447-20110526-08. PMID: 21717993.
8. Utti, V., Ege, S., & Lukman, O. (2006). Blood pressure and pulse rate changes associated with cervical traction. *Nigerian Journal of Medicine*, 15(2), 141–143. <https://doi.org/10.4314/njm.v15i2.37098>