

Measuring Blood Pressure Checklist

Updated February 2026

Prepare the Patient



- Verify patients have not engaged in activities within the last 30 minutes that can raise blood pressure, such as:
 - » Exercise
 - » Consuming caffeine
 - » Using nicotine
- Ask patients to empty their bladder to avoid elevated readings.

- Allow patients to rest quietly for at least 5 minutes before measurement (Canada: 1–5 minutes)
- Seat patients with back supported, both feet flat on the floor, and legs uncrossed.
- Avoid talking with the patient, and instruct the patient not to talk, during resting period and blood pressure measurement.



Use Proper Equipment

- Ensure automated equipment has been validated and calibrated.



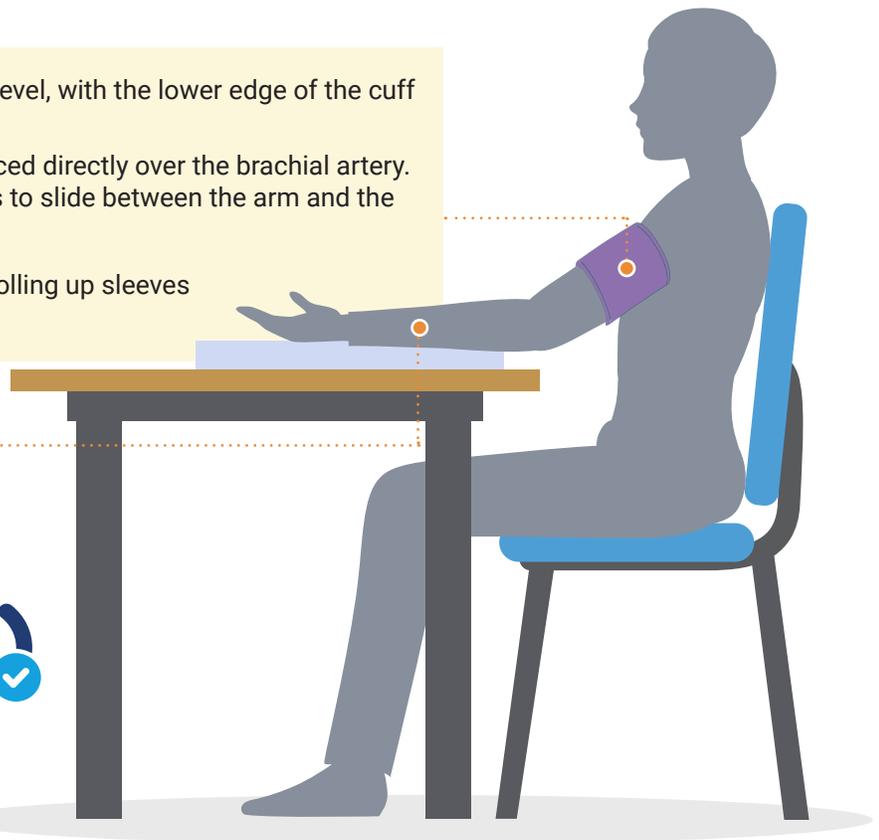
- Use the correct cuff size for the patient:
 - » The width of the bladder should be about 37% to 50% of the patient's arm circumference.
 - » When positioning the cuff, the cuff bladder should go at least 75%, but not more than 100%, of the way around the patient's arm.

Use Proper Technique

- Place the middle of the cuff at the right atrium level, with the lower edge of the cuff above the elbow crease:
 - » The center of the cuff bladder should be placed directly over the brachial artery.
 - » Cuff should feel snug enough for two fingers to slide between the arm and the bottom of the cuff.
- Ensure the cuff is placed on a bare arm; avoid rolling up sleeves and restricting blood flow.

- Ensure the patient's arm is supported at the level of the heart.

- For a patient's first blood pressure measurement, check the pressure in both arms. If blood pressure differs between arms (e.g., >10 mm Hg), use the arm with the higher pressure.
- Take two or three readings, separated by one minute, and average the readings.



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Use Proper Technique (continued)



- When taking a manual measurement (e.g., using a stethoscope and sphygmomanometer):
 - » Place the bell or diaphragm of the stethoscope over the brachial artery.
 - » Inflate the cuff to a pressure 30 mm Hg above where you can no longer feel the radial pulse.
 - » Deflate the cuff at a rate of ~2 mm Hg per second.
 - » Pressure when the first Korotkoff sound appears is the SBP.
 - » Pressure when all Korotkoff sounds disappear is the DBP.

Document Results

- Document the time that the last blood pressure medication dose (if applicable) was taken before measurement.



- Provide result to patient in writing and verbally, and explain what it means. (See footnote a for definition of hypertension.)



Abbreviations: DBP = diastolic blood pressure; SBP = systolic blood pressure

a. Hypertension in non-pregnant adults:

- Blood pressure $\geq 130/80$ mm Hg, confirmed with ambulatory or home blood pressure monitoring (preferred), or at office follow-up (i.e., ≥ 2 separate visits).
- ISH: Blood pressure $\geq 140/90$ mm Hg at 2 to 3 office visits separated by 1 to 4 weeks, depending on blood pressure. A blood pressure of $\geq 180/110$ mm Hg on a single occasion may be enough for a diagnosis if signs or symptoms of cardiovascular disease are present.

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Treatment of Hypertension

Updated September 2025



WITHOUT CVD or CKD	CAD ^b	Stroke/TIA ^a	CKD ^b	HFrEF ^b	HFpEF ^b	Other CVD
<p>One, or low-dose combo^b of two, of these:</p> <p>ACEI^h or ARB^h, thiazide,^a long-acting DHP, CCB^{1,2,e}</p>	<p>Evidence-based ACEI,^h ARB,^h or BB^d (BB especially for recent MI or ACS, or angina)^{1,11}</p> <p>Add-ons: long-acting DHP, CCB,^e thiazide,^a MRA^{9,1,11}</p>	<p>Thiazide,^a ACEI,^h or ARB^{1,h}</p>	<p>ACEI^h or ARB.^{1,h}</p> <p>Can add a long-acting DHP, CCB^e or thiazide (loop if eGFR <30 mL/min/1.73m²).^{1,4}</p> <p>Consider adding finereone for diabetic kidney disease.¹⁷</p>	<p>Evidence-based BB;^d MRA⁹ (if symptomatic, eGFR >30 mL/min/1.73m², potassium <5 mEq/L); sacubitril/valsartan (NYHA Class II to III [preferred over ACEI^h or ARB^h]), and SGLT2 inhibitor (if symptomatic)¹</p> <p>Loop diuretic as needed.¹</p> <p>Can add hydralazine plus isosorbide dinitrate in Black patients, or other patients who can't take sacubitril/valsartan, ACEI^h or ARB.^{1,h}</p>	<p>SGLT2 inhibitor.^{1,5} Consider MRA⁹ or sacubitril/valsartan or ARB.^{1,5,h} Loop diuretic as needed.¹</p> <p>HFmrEF^b</p> <p>SGLT2 inhibitor.⁵ Consider MRA⁹ or sacubitril/valsartan or ARB.⁵ Consider Evidence-based BB.^{4,5}</p>	<p>A-fib^b ACEI,^h ARB,^h or MRA^{9,1,3}</p> <p>Aortic disease^b BB^d (largely extrapolated from acute management)¹</p> <p>Aortic VALVE regurgitation^b ACEI,^h ARB^h (note: antihypertensives that reduce HR may increase SBP)</p>



- Optimize dose, then add another appropriate first-line agent (e.g., thiazide,^a ACEI,^h ARB,^h long-acting dihydropyridine CCB^e).^{2,4}
 - DO NOT combine an ACEI plus ARB and/or aliskiren.
- Consider SGLT2 inhibitor (for diabetes, HF) or GLP-1 agonist (diabetes, obesity) for appropriate patients.^{1,18}



Investigate resistant HTN (i.e., BP >goal despite optimal dosing of three antihypertensives from different classes,^{6,7} or BP controlled with four antihypertensives.⁵) Consider pseudoresistance and secondary HTN. **See footnote c** for more information on resistant HTN.



Add a drug(s) from a class not currently in use.				
<p>Spironolactone (preferred^{1,2,4}) or eplerenone^{1,6,g}</p> <p>OR</p> <p>Amiloride^{4,7,13}</p>	<p>If HR ≥70 bpm: Beta-blocker (consider carvedilol)^{6,14,d}</p> <p>OR</p> <p>Clonidine^{4,6}</p> <p>OR</p> <p>Guanfacine⁶</p> <p>OR</p> <p>Long-acting diltiazem or verapamil^{5,e}</p>	<p>Doxazosin Consider for BPH^{1,4} Risk of orthostatic hypotension, especially with first dose and in older patients.¹</p>	<p>Hydralazine Max dose 50 mg TID to reduce lupus risk.⁵ Use with BB and diuretic to counteract reflex tachycardia and fluid retention. Add nitrate for HFrEF.⁶</p> <p>OR</p> <p>Minoxidil⁶ Causes hirsutism.⁶ Use with BB and diuretic to counteract reflex tachycardia and fluid retention.¹</p>	<p>Aprocitan (Tryvio [US]).¹² Risk of embryo-fetal toxicity. Lacks CV risk reduction data. Can cause fluid retention, hepatotoxicity, hemoglobin eGFR reduction, reduced sperm count.</p>

Therapy Optimization (consider during all steps above)



- Optimize lifestyle interventions (e.g., healthy diet, exercise, weight loss, sodium restriction [e.g., 2,400 mg/day], increased dietary potassium [if appropriate], alcohol restriction, stress reduction).^{1,6,7}
- Consider discontinuation or dose reduction of **drugs or substances that may increase blood pressure**.
- Consider use of once-daily antihypertensives (to improve adherence), giving at least one dose at bedtime; patients with resistant HTN often have BP that doesn't "dip" at night like it should.^{6,10}
- Consider choosing indapamide or chlorthalidone (with azilsartan for resistant HTN) over hydrochlorothiazide.^{6,7,a} See footnote a for details.
- Consider switching amlodipine to long-acting nifedipine.⁶

Treatment of Hypertension

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Footnotes

- a. **Thiazide considerations.** “Thiazide” includes thiazide-like diuretics. Chlorthalidone or indapamide have a longer duration of action than hydrochlorothiazide and may be preferable in patients with resistant HTN.^{1,7} Chlorthalidone may provide better CV outcomes in patients with a history of stroke or MI, at the expense of higher risk of hypokalemia.¹² Thiazides are effective to eGFR 25 to 30 mL/min/1.73m².⁶ Chlorthalidone is about twice as potent as hydrochlorothiazide.⁹ Chlorthalidone is available alone or in combination with azilsartan (Edarbyclor). Azilsartan may provide more BP reduction than other ARBs or ACEIs.⁶
- b. Combination Therapy vs. Stepped-Care
- Consider starting with a **combo** of two meds, especially if baseline BP \geq 140/90 mm Hg, Black, or CV risk $>$ 7.5%.¹ Hypertension Canada recommends starting with a combo in all patients.²
 - Monitor older adults for orthostatic hypotension.¹
 - Choose a single-pill combination with two meds to promote adherence.^{1,2,4} Available single-pill combinations include ACEI/CCB, ARB/CCB, ACEI/diuretic, ARB/diuretic.
 - Consider starting with a single agent, carefully uptitrating, then adding other agents if needed (**stepped care**) when starting antihypertensives in frail patients, patients with a history of adverse effects with antihypertensives (e.g., hypotension), and/or baseline BP 130 to 139/80 to 89 mm Hg.¹
- c. Resistant Hypertension
- Hypertension Canada recommends specialist referral for patients not at goal with three agents.⁷
 - Consider pseudo-resistance due to **nonadherence, blood pressure measurement error, or white coat HTN.**^{6,7}
 - Consider secondary HTN due to obstructive sleep apnea (very common),⁸ primary hyperaldosteronism (AHA guidelines recommend screening all patients⁶), CKD, renal artery stenosis, chromaffin cell tumors (e.g., pheochromocytoma), coarctation of the aorta (even post-repair), Cushing's disease, rare endocrine disorders.⁶
 - Adverse effects are an important consideration when choosing an add-on antihypertensive because evidence that BP reduction improves CV outcomes in resistant HTN is lacking.⁷
- d. Beta-blocker considerations:
- BB are not recommended first-line for HTN unless the patient has CAD or HF.¹
 - In **HTN**, BBs do not reduce stroke risk as much as ACEIs, ARBs, thiazides, or dihydropyridine CCBs.²
 - For **CAD**, evidence-based BB choices include carvedilol, metoprolol succinate, nadolol, bisoprolol, propranolol, or timolol.¹¹
 - Avoid atenolol; it is inferior to other BBs for reducing CV events.¹¹
 - For **HF**, evidence-based BB choices include metoprolol succinate, bisoprolol, or carvedilol.¹
 - Avoid combining a BB with clonidine or a non-DHP CCB (diltiazem, verapamil).¹²
 - For indications and dosing, see our chart, [Comparison of Oral Beta-Blockers](#).
- e. Calcium channel blocker considerations
- Do not use short-acting nifedipine.¹
 - Consider use of long-acting nifedipine over amlodipine for potentially better BP control; however, nifedipine may cause more edema than amlodipine.⁶
 - Do not use a non-DHP CCB (diltiazem, verapamil) in patients with HFrEF.¹
 - A nondihydropyridine CCB (diltiazem, verapamil) can be used **instead** of a BB for angina unless the patient has significant left ventricular dysfunction.¹¹
 - DHP and non-DHP (diltiazem, verapamil) can be combined.¹
- f. Some evidence suggests that ACEIs or ARBs may reduce A-fib recurrence, and MRAs may reduce A-fib burden.^{1,3}
- g. Mineralocorticoid receptor antagonist considerations
- Do not combine MRAs (spironolactone, eplerenone, finerenone).¹
 - MRAs with evidence in HFrEF are spironolactone and eplerenone.⁵
 - In HFpEF, consider MRAs (spironolactone or finerenone) for females, or males with ejection fraction $<$ 55% to 60%).^{5,15,16}
 - MRAs with evidence in HFmrEF are spironolactone and finerenone.^{5,16}
 - Spironolactone has been studied for BP control in resistant HTN, and is a first-line-add-on.¹
 - Eplerenone is dosed BID for HTN, but poses lower risk of gynecomastia and erectile dysfunction than spironolactone.¹
 - Like eplerenone, finerenone is less likely than spironolactone to cause gynecomastia.¹⁷
- h. ACEIs and ARBs: for indications and dosing, see our chart, [Angiotensin Receptor Blockers and Angiotensin-Converting Enzyme Inhibitors](#).

Abbreviations: ACEI = Angiotensin converting enzyme inhibitor; A-fib = atrial fibrillation; ARB = angiotensin receptor blocker; BB = beta-blocker; BID = twice daily; BNP = brain natriuretic peptide; BP = blood pressure; BPH = benign prostatic hypertrophy; bpm = beats per minute; CCB = calcium channel blocker; CKD = chronic kidney disease; CVD = cardiovascular disease; DBP = diastolic blood pressure; DHP = dihydropyridine; DM = diabetes mellitus; GLP-1 = glucagon-like peptide-1; HF = heart failure; HR = heart rate; HTN = hypertension; ISH = isolated systolic hypertension; LVH = left ventricular hypertrophy; MI = myocardial infarction; MRA = mineralocorticoid receptor antagonist; NT-proBNP = N terminal pro-B-type natriuretic peptide; NYHA = New York Heart Association; SGLT2 = sodium-glucose cotransporter-2

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