# Hypertension — Outpatient

2025 ACC/AHA · Risk now decides who gets a drug, not the blood pressure number alone

**TARGET < 130/80**
*for essentially all adults*

## WHAT CHANGED IN 2025 *the thresholds held; the decision rule moved*

### PREVENT REPLACES THE POOLED COHORT EQUATIONS

**Risk is now estimated with PREVENT**, which **removes race as an input** and instead incorporates **kidney and metabolic measures** alongside the cardiovascular ones. It estimates **10-year total cardiovascular risk**, and the number it produces now feeds directly into the decision to start a drug.

### RISK-BASED INITIATION

**A 10-year PREVENT risk of 7.5% or more** pushes a patient with stage 1 hypertension straight to drug therapy rather than to lifestyle alone. Two people with identical readings can now correctly get different plans.

### ALSO NEW

**Systolic below 130 carries a Class 1 recommendation to reduce cognitive impairment and dementia** — a genuinely new argument for control. Plus a stronger push for **single-pill combinations**, **home monitoring**, **team-based care**, and expanded guidance in **pregnancy, chronic kidney disease and resistant hypertension**.

## MEASURE IT PROPERLY, THEN CLASSIFY *bad technique manufactures hypertension*

| Step | Detail |
|---|---|
| Technique | **Seated and rested 5 minutes, back supported, feet flat, arm at heart level, correct cuff size, no talking.** A cuff that is too small, an unsupported arm or a hurried reading each add clinically meaningful millimetres. **Average two or more readings on two or more occasions** before labelling anyone. |
| Confirm out of office | **Home or ambulatory readings should confirm the diagnosis.** This identifies **white-coat hypertension**, which does not need drugs, and **masked hypertension**, which is normal in clinic yet raised at home and carries real risk — the one you will otherwise miss entirely. |
| The categories | **Normal below 120/80 · Elevated 120–129 systolic with diastolic below 80 · Stage 1: 130–139 systolic or 80–89 diastolic · Stage 2: 140 or above systolic, or 90 or above diastolic**. The category is set by whichever number is higher. |
| Baseline workup | **Electrolytes and creatinine, urine albumin-to-creatinine ratio, lipids, HbA1c, thyroid function, complete blood count and an ECG.** Look for end-organ damage, which raises the urgency independently of the reading. |

## WHO GETS A DRUG, AND WHEN *the 2025 decision tree in four steps*

1. **Everybody gets lifestyle therapy**, at every stage, including those already on drugs. **Sodium below 2,300 mg a day and ideally below 1,500**, a DASH-style diet, **potassium-based salt substitutes** where renal function permits, weight loss, regular aerobic activity, and **alcohol reduced to at most 2 drinks a day for men and 1 for women, or abstinence**.
2. **Stage 2 (140/90 or above): start drug therapy now**, alongside lifestyle change. **Begin with a single-pill combination of two classes** rather than sequential single agents — it controls pressure faster and improves adherence.
3. **Stage 1 (130–139/80–89): the risk decides. Start a drug if there is established cardiovascular disease, diabetes, chronic kidney disease, or a 10-year PREVENT risk of 7.5% or more.** Otherwise **trial lifestyle change for 3 to 6 months**, then start a drug if the pressure remains at or above 130/80.
4. **Choose from the first-line classes: a thiazide-type diuretic, an ACE inhibitor or ARB, or a dihydropyridine calcium channel blocker. Never combine an ACE inhibitor with an ARB. Beta-blockers are not first-line** without a separate indication such as ischemic heart disease, heart failure or rate control. **Reassess monthly until controlled**, then at longer intervals.

## WHEN CONTROL FAILS *most apparent resistance is not resistant hypertension*

| Check | Detail |
|---|---|
| Define it first | **Resistant hypertension is blood pressure above goal despite three agents of different classes including a diuretic at optimal doses, or controlled pressure requiring four or more.** Confirm with **out-of-office readings** before accepting the label. |
| Non-adherence | **The single commonest reason a regimen appears to fail.** Ask non-judgementally about missed doses, cost and side effects, and simplify to **once-daily single-pill combinations**. Poor technique and an undersized cuff are the next commonest. |
| Interfering substances | **NSAIDs, decongestants, oral contraceptives, corticosteroids, cyclosporine, erythropoietin, stimulants, excess alcohol and licorice.** Review the full list including anything bought over the counter. |
| Add spironolactone | **The preferred fourth agent**, supported by PATHWAY-2, where it outperformed the alternatives added to triple therapy. **Monitor potassium and creatinine within 1 to 2 weeks**, and be cautious in chronic kidney disease. |
| Look for a secondary cause | **Primary aldosteronism is the commonest and is markedly underdiagnosed** — screen with an **aldosterone-to-renin ratio** in resistant hypertension, unexplained hypokalemia, an adrenal incidentaloma, or hypertension with sleep apnea or atrial fibrillation. Also consider **obstructive sleep apnea, renal artery stenosis, renal parenchymal disease, pheochromocytoma, Cushing's syndrome, coarctation and thyroid disease**. |

## SPECIAL SITUATIONS *where the standard regimen is wrong*

### PREGNANCY

**ACE inhibitors, ARBs and direct renin inhibitors are contraindicated** because of fetal renal and skeletal harm. **Use labetalol, nifedipine or methyldopa**, and stop the offending agent as soon as pregnancy is recognized or planned. **Discuss contraception and pregnancy intention before prescribing** to anyone who could conceive — this conversation is routinely skipped.

### CKD AND DIABETES

**Use an ACE inhibitor or ARB when there is albuminuria** — the benefit is on kidney outcomes beyond the pressure itself. **Expect and tolerate a creatinine rise of up to about 30%** after starting; a larger rise or hyperkalemia prompts review rather than reflexive discontinuation. **Check renal function and potassium 1 to 2 weeks after every initiation or uptitration.**

## PEARLS & PITFALLS

- **Confirm with out-of-office readings before committing to lifelong treatment** — and to catch masked hypertension, which clinic readings hide.
- **Run PREVENT before deciding on stage 1.** Under the 2025 guideline the risk score, not the reading, is what triggers drug therapy.
- **Start stage 2 on two drugs in one pill.** Sequential single agents control pressure more slowly and adherence is worse.
- **Non-adherence, not true resistance, is the leading cause of uncontrolled pressure.** Ask before you add a fourth drug.
- **Screen for primary aldosteronism** in resistant hypertension or unexplained hypokalemia — it is common and specifically treatable.
- **Stop ACE inhibitors and ARBs before or as soon as pregnancy occurs**, and raise the issue proactively rather than at the first positive test.

**References:** 2025 AHA/ACC multisociety guideline for the prevention, detection, evaluation and management of high blood pressure in adults · AHA PREVENT risk equations · PATHWAY-2 · SPRINT · Endocrine Society guidance on primary aldosteronism.

*Educational aid; verify against local protocol, renal function, pregnancy status and patient factors.*