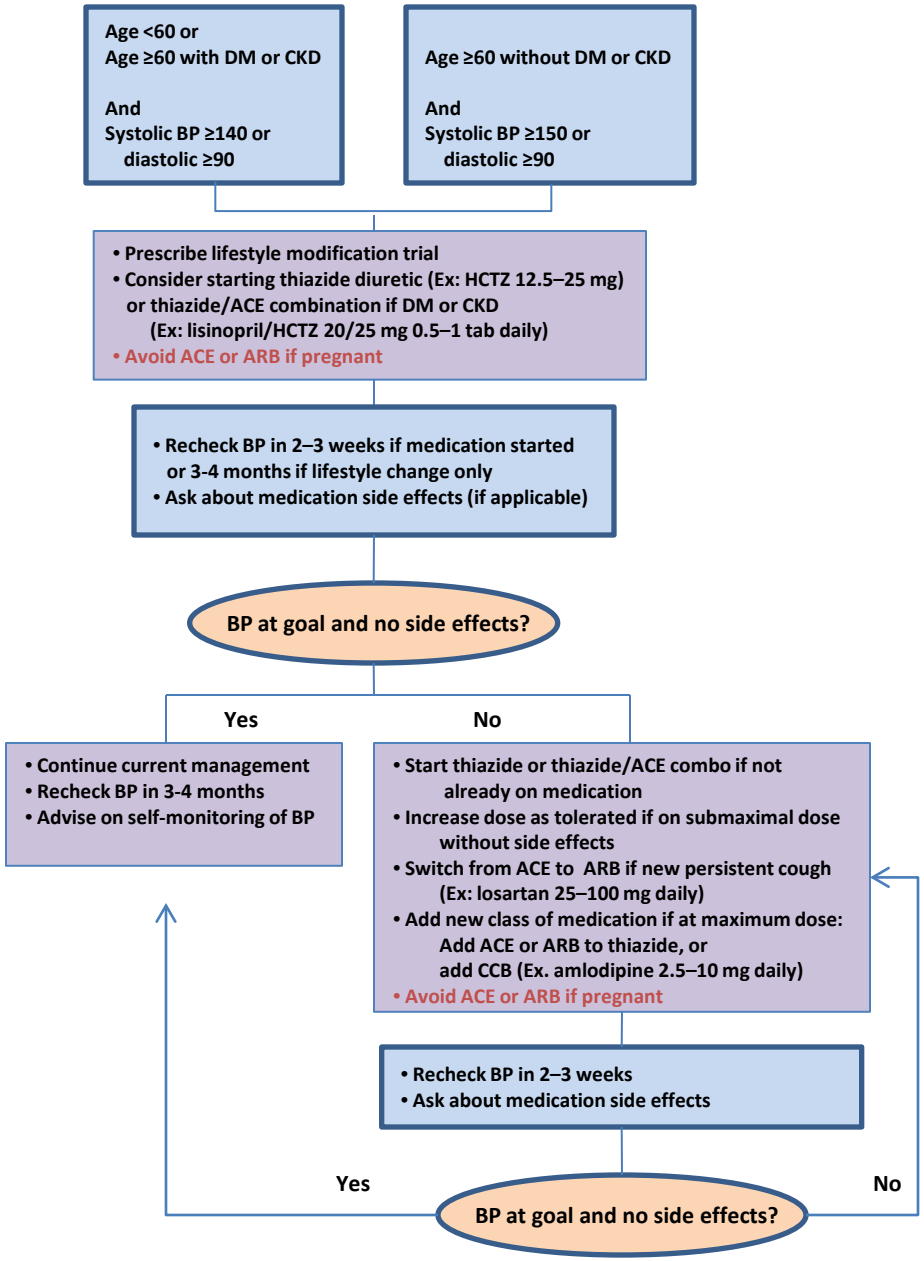
Alabama Hypertension Control Algorithm Template for Adults ≥18 Years



Caveats:

- Repeat BP if isolated BP elevation
- Consider secondary causes of BP elevation
- Consider white coat effect – try ambulatory BP measurement
- Consider medication non-adherence
- Consider interfering agents (e.g., NSAIDs, excess alcohol)
- **For age ≥60, if pharmacologic treatment for hypertension results in systolic BP <140 and is well tolerated without adverse effects, treatment does not need to be adjusted**

Special considerations:

- Coronary artery disease/post-MI: consider ACE, BB
- Heart failure with reduced EF: ACE or ARB, BB, aldo, diuretic
- Heart failure with preserved EF: ACE or ARB, BB, diuretic
- Diabetes: ACE or ARB, diuretic, BB, CCB
- Kidney disease: choose ACE or ARB; avoid thiazide if GFR <30
- Stroke or TIA: diuretic, ACE
- African American:
  - ❖avoid **monotherapy** with ACE or ARB (may use in combination with HCTZ)
  - ❖Consider CCB or thiazide as first-line agents

Abbreviations:

DM = Diabetes mellitus
CKD = Chronic kidney disease
BP = Blood pressure
HCTZ = Hydrochlorothiazide
ACE = Angiotensin converting enzyme inhibitor
ARB = Angiotensin II receptor blocker
CCB = Calcium channel blocker
MI = Myocardial infarction
BB = Beta blocker
EF = Ejection fraction
Aldo = Aldosterone antagonist
GFR = Glomerular filtration rate
TIA = Transient ischemic attack
DASH diet = Dietary Approaches to Stop Hypertension

The algorithm presented here is designed to provide general guidance and assist clinical decision-making, but does not take into account the unique health issues of individual patients and thus is not intended as a substitute for the clinical judgment of a qualified healthcare provider. Links to external resources are provided as a public service and do not imply endorsement by the Alabama Department of Public Health. The algorithm will be updated as new evidence is published.

Protocol Recommended by the Alabama Blood Pressure Task Force

Identifiable Causes of Elevated Blood Pressure to Consider Before Diagnosis of Essential Hypertension

- Drug induced (see list)
- Renovascular disease
- Hyperaldosteronism
- Thyroid and parathyroid disorders
- Cushing's syndrome or chronic steroid therapy
- Pheochromocytoma
- Coarctation of aorta
- Sleep apnea

Drugs or Supplements Contributing to Elevated Blood Pressure

- Nonsteroidal anti-inflammatories and COX-2 inhibitors
- Sympathomimetics (decongestants, appetite suppressants)
- Oral contraceptives
- Corticosteroids
- Cyclosporine and tacrolimus
- Erythropoeitin
- Certain dietary supplements (ephedra, ma huang, caffeine)
- Cocaine, amphetamines or other illicit drugs

LIFESTYLE MODIFICATION

- Healthy weight
- DASH/low sodium diet
- Physical activity
- Limit alcohol
- Quit smoking

Lifestyle Modifications to Prevent and Manage Hypertension*

BEHAVIOR CHANGE	PLAN	APPROXIMATE SBP REDUCTION
Lose Weight	Maintain healthy weight (body mass index <25 kg/m^2)	5-20 mm Hg per 22 lb weight loss
Adopt DASH Eating Plan	Diet rich in fruits, vegetables, low fat dairy, whole grains, fish, lean poultry, nuts with low saturated, trans, and total fat	8-14 mm Hg
Dietary Sodium Reduction	Reduce sodium intake to <2.4 g sodium (less than 1 teaspoon of sodium a day)	2-8 mm Hg
Physical Activity	Regular aerobic physical activity, brisk walking, at least 30 minutes per day, most days of the week	4-10 mm Hg
Moderation of Alcohol Consumption	No more than 2 drinks/day for men, 1 drink/day for women (1 drink = 12 oz. beer, 5 oz. wine, or 1.5 oz. spirits)	2-4 mm Hg

DASH, Dietary Approaches to Stop Hypertension; SBP, systolic blood pressure

*For overall cardiovascular risk reduction, stop smoking.

References: James PA, Oparil S, Carter BL, et al. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). JAMA. 2014 Feb 5;311(5):507-20. Erratum in: JAMA. 2014 May 7;311(17):1809.

Chobanian AV, Bakris GL, Black HR, et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the JNC 7 report. JAMA. 2003 May 21;289(19):2560-72. Erratum in: JAMA. 2003 Jul 9;290(2):197.

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