

BLOOD PRESSURE MEASUREMENT TECHNIQUES

METHOD	NOTES
In-office	Two readings, 5 minutes apart, sitting in chair. Confirm elevated reading in contralateral arm.
Ambulatory BP monitoring	Indicated for evaluation of "white coat hypertension." Absence of 10-20 percent BP decrease during sleep may indicate increased CVD risk.
Patient self-check	Provides information on response to therapy. May help improve adherence to therapy and is useful for evaluating "white coat hypertension."

CAUSES OF RESISTANT HYPERTENSION

- Improper BP measurement
- Excess sodium intake
- Inadequate diuretic therapy
- Medication
 - Inadequate doses
 - Drug actions and interactions (e.g., nonsteroidal anti-inflammatory drugs (NSAIDs), illicit drugs, sympathomimetics, oral contraceptives)
 - Over-the-counter (OTC) drugs and herbal supplements
- Excess alcohol intake
- Identifiable causes of hypertension (see reverse side)

COMPPELLING INDICATIONS FOR INDIVIDUAL DRUG CLASSES

COMPPELLING INDICATION

- Heart failure
- Post myocardial infarction
- High CVD risk
- Diabetes
- Chronic kidney disease
- Recurrent stroke prevention

INITIAL THERAPY OPTIONS

- THIAZ, BB, ACEI, ARB, ALDO ANT
 BB, ACEI, ALDO ANT
 THIAZ, BB, ACEI, CCB
 THIAZ, BB, ACEI, ARB, CCB
 ACEI, ARB
 THIAZ, ACEI

Key: THIAZ = thiazide diuretic, ACEI = angiotensin converting enzyme inhibitor, ARB = angiotensin receptor blocker, BB = beta blocker, CCB = calcium channel blocker, ALDO ANT = aldosterone antagonist

STRATEGIES FOR IMPROVING ADHERENCE TO THERAPY

- Clinician empathy increases patient trust, motivation, and adherence to therapy.
- Physicians should consider their patients' cultural beliefs and individual attitudes in formulating therapy.

PRINCIPLES OF LIFESTYLE MODIFICATION

- Encourage healthy lifestyles for all individuals.
- Prescribe lifestyle modifications for all patients with prehypertension and hypertension.
- Components of lifestyle modifications include weight reduction, DASH eating plan, dietary sodium reduction, aerobic physical activity, and moderation of alcohol consumption.

LIFESTYLE MODIFICATION RECOMMENDATIONS

MODIFICATION	RECOMMENDATION	AVG. SBP REDUCTION RANGET
Weight reduction	Maintain normal body weight (body mass index 18.5-24.9 kg/m ²).	5-20 mmHg/10 kg
DASH eating plan	Adopt a diet rich in fruits, vegetables, and lowfat dairy products with reduced content of saturated and total fat.	8-14 mmHg
Dietary sodium reduction	Reduce dietary sodium intake to ≤100 mmol per day (2.4 g sodium or 6 g sodium chloride).	2-8 mmHg
Aerobic physical activity	Regular aerobic physical activity (e.g., brisk walking) at least 30 minutes per day, most days of the week.	4-9 mmHg
Moderation of alcohol consumption	Men: limit to ≤2 drinks* per day. Women and lighter weight persons: limit to ≤1 drink* per day.	2-4 mmHg

* 1 drink = 1/2 oz or 15 ml ethanol (e.g., 12 oz beer, 5 oz wine, 1.5 oz 80-proof whiskey).
 † Effects are dose and time dependent.



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