

Hypertension

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Blood Pressure Regulation

- Arterial baroreceptors
- Regulation of body-fluid volume
- Renin-angiotensin system
- Vascular autoregulation

Classifications of HTN

Classification	Systolic		Diastolic
Normal	< 120	and	< 80
PreHTN	120-139	or	80-90
Stage 1 HTN	140-159	or	90-99
Stage 2 HTN	≥ 160	or	≥ 100

Risk Factors for Primary HTN/ Essential HTN

- ☞ Family history
- ☞ Excessive NA intake
- ☞ Physical inactivity
- ☞ Obesity
- ☞ High alcohol consumption
- ☞ African-American descent
- ☞ Smoking
- ☞ Hyperlipidemia
- ☞ Stress

Risk Factors for Secondary HTN

- ☞ Renal disease
- ☞ Cushings disease
- ☞ Primary aldosteronism
- ☞ Pheochromocytoma
- ☞ Brain tumors, encephalitis
- ☞ Medications

Risk Factors for Hypertensive Patients/ Target Organ Damage

- ☞ Coronary disease
- ☞ Cerebral (CVA or TIA)
- ☞ Renal disease
- ☞ Peripheral vascular disease
- ☞ Retinopathy

Signs & Symptoms

- ☞ Headaches
- ☞ Dizziness
- ☞ Fainting
- ☞ Retinal changes, visual disturbances

Diagnostic Tests

- ☞ BUN, creatinine
- ☞ Serum corticosteroids
- ☞ ECG
- ☞ CXR

Lifestyle Modification

- ☞ Weight reduction
- ☞ DASH (Dietary Approaches to Stop HTN)
- ☞ Physical activity
- ☞ Alcohol consumption
- ☞ Stop smoking
- ☞ Stress management

Antihypertensive Medications

- ☞ Diuretics
 - Thiazide
 - Loop
 - Potassium Sparing
- ☞ Aldosterone Receptor Blockers
- ☞ Central Alpha 2 Agonist
- ☞ Beta Blockers/ Intrinsic Sympathomimetic Activity
- ☞ Alpha & Beta Blockers
- ☞ Vasodilators
- ☞ ACE (Angiotension-Converting Enzyme) Inhibitors
- ☞ ARB's (Angiotension II Receptor Blockers)
- ☞ Calcium Channel Blockers
- ☞ Direct Renin Inhibitor

Hypertensive Crisis (Malignant HTN)

- ☞ Hypertensive Emergency
 - BP > 180/120
 - HTN of pregnancy
 - MI
 - Dissecting aortic aneurysm
 - Intracranial hemorrhage
 - IV vasodilators
- ☞ Hypertensive Urgency
 - Headache, epistaxis, anxiety
 - Oral antihypertensive
