

HYPERTENTION

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DEFINITIONS

- Normal blood pressure: systolic <120 mmHg and diastolic <80 mmHg
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- Prehypertension: systolic 120 to 129 mmHg or diastolic <80 mmHg
- **Hypertension:**
- Stage 1: systolic 130 to 139 mmHg or diastolic 80 to 89 mmHg
- Stage 2: systolic \geq 140 or diastolic \geq 90 mmHg

- **Isolated SHTN:**

BP \geq 130/<80 mmHg

isolated DHTN:

BP<130/ \geq 80 mmHg.

systolic pressure is the greater predictor of risk in patients over the age of 50 to 60 .

Under age 50 years, diastolic BP is a better predictor of mortality than systolic readings .

ESSENTIAL (PRIMARY) HTN

- **Pathogenesis:**

understood.

factors have been implicated, including:

- Increased sympathetic neural activity

- Increased AngII activity and mineralocorticoid excess

-HTN is about twice as common in subjects who have one or two HTN parents .

-Reduced adult nephron mass may predispose to HTN, (**genetic factors, intrauterine developmental disturbance (eg, hypoxia, drugs, nutritional deficiency), and post-natal environment (eg, malnutrition, infections).**)

Risk factors

- Blacks
- maternal, paternal or both parents
- Na intake increases
- alcohol intake increases
- Obesity and weight gain are major risk factors for HTN.
- Physical inactivity
- Dyslipidemia, independent of obesity
- Vitamin D deficiency

Etiology SECONDARY HYPERTENSION

- **Primary renal disease(AKI and CKD) particularly glomerular or vascular disorders**
- **Oral contraceptives**
- **Drug-induced ,Chronic NSAIDS and many antidepressants .**
- Chronic alcohol intake and alcohol abuse**
- **Pheochromocytoma**
- **Primary aldosteronism (HTN, unexplained hypokalemia, and metabolic alkalosis).**

-Renovascular disease

- Cushing's syndrome

- Other endocrine disorders

Hypothyroidism, hyperthyroidism, and hyperparathyroidism

Obstructive sleep apnea

- Coarctation of the aorta: major causes of sec HTN in young children .