

Heart Health and Hypertension

Overview

Hypertension, or high blood pressure, is a chronic condition in which the force of blood against artery walls remains elevated, often without symptoms. It is a major modifiable risk factor for heart disease, stroke, kidney failure, and vision loss.

WHO estimates that 1 in 3 adults worldwide has hypertension, yet only about one in five has it under control. In India, prevalence exceeds 25% among adults, increasing rapidly with urbanization.

[Source: WHO Hypertension Report, 2023; ICMR, 2022]

Causes / Risk Factors

Primary risk factors include:

- Diets high in sodium, saturated fats, and low in potassium
- Physical inactivity and obesity
- Excessive alcohol consumption and tobacco use
- Family history and advancing age
- Chronic stress and inadequate sleep

Secondary hypertension may arise from underlying kidney disease, endocrine disorders, or medications.

[Source: CDC Heart Disease Prevention, 2024]

Symptoms / Warning Signs

Hypertension is often asymptomatic. However, some individuals may experience:

- Morning headaches, dizziness, or nosebleeds
- Blurred vision or shortness of breath
- Fatigue or chest discomfort

Persistent high blood pressure damages arteries and organs silently over years, making regular screening essential.

[Source: Mayo Clinic, 2024]

Prevention / Lifestyle

The American Heart Association (AHA) and WHO recommend:

- Reduce salt intake to <5 g/day
- Engage in 150 minutes/week of moderate-intensity physical activity
- Maintain a healthy BMI (<25)
- Avoid smoking and limit alcohol consumption
- Manage stress through relaxation or mindfulness techniques
- Eat potassium-rich foods (bananas, leafy greens)

[Source: AHA, 2024; WHO, 2023]

Screening / Diagnosis

Diagnosis requires consistent elevated readings:

- Systolic ≥ 140 mmHg and/or Diastolic ≥ 90 mmHg on two separate visits
- Ambulatory blood pressure monitoring for confirmation
- Additional tests: ECG, lipid profile, renal function, fasting glucose

Community screening programs in India encourage adults >30 years to check blood pressure annually.

[Source: NPCDCS, MoHFW, 2023]

Management / Public Health Perspective

Population-wide strategies focus on early detection and risk reduction:

- Salt reduction campaigns and front-of-pack labeling
- Integration of hypertension screening in primary care
- WHO's HEARTS technical package helps countries scale up control programs
- India's NPCDCS program supports nationwide hypertension awareness and treatment

[Source: WHO HEARTS Initiative, 2023; MoHFW India, 2024]

Summary Points

- Hypertension is largely preventable through diet and lifestyle
- Regular screening saves lives

- Public health programs emphasize early control

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