

Diabetes Management

Overview

Diabetes mellitus is a metabolic disorder characterized by high blood glucose levels due to insufficient insulin production (Type 1) or insulin resistance (Type 2).

The International Diabetes Federation (IDF) estimates 537 million adults live with diabetes, projected to reach 643 million by 2030. India is home to over 100 million diabetics, making it one of the global epicenters.

[Source: *IDF Diabetes Atlas, 2023; ICMR, 2024*]

Causes / Risk Factors

- Sedentary lifestyle and obesity
- Unhealthy diets high in refined carbs, sugary beverages, and fats
- Family history and aging
- Polycystic ovary syndrome (in women)
- History of gestational diabetes

Urbanization and reduced physical activity are primary drivers in South Asia.

[Source: *WHO Diabetes Factsheet, 2023*]

Symptoms / Indicators

- Frequent urination and excessive thirst
- Constant hunger, fatigue, or blurred vision
- Slow-healing wounds and frequent infections
- Tingling sensation in hands or feet (neuropathy)

Early detection can prevent long-term complications such as kidney disease, heart attack, or vision loss.

[Source: *CDC Diabetes, 2024*]

Prevention / Lifestyle

WHO and Harvard Health emphasize:

- Maintaining BMI <25 and waist circumference <90 cm (men) or <80 cm (women)

- Regular exercise: at least 150 minutes/week
- Reducing sugary and processed food intake
- Monitoring glucose levels regularly for at-risk individuals

[Source: WHO, 2023; Harvard Health, 2024]

Screening / Diagnosis

Diagnostic criteria:

- Fasting Plasma Glucose ≥ 126 mg/dL
- HbA1c $\geq 6.5\%$
- OGTT (2-hour plasma glucose ≥ 200 mg/dL)

Screening every 3 years is advised for adults over 40 or earlier in obese individuals.

[Source: ADA Guidelines, 2024]

Management / Public Health Perspective

WHO's Global Diabetes Compact (2021) aims to improve global access to affordable insulin and strengthen prevention strategies.

India's National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS) promotes community-level screening and lifestyle education.

Digital health interventions, such as mobile-based monitoring and telemedicine, are improving follow-up care in rural areas.

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

Summary Points

- Type 2 diabetes is largely preventable
- Early detection reduces complications
- Lifestyle change is the cornerstone of management

Disclaimer: This document is for educational purposes only and should not be considered medical advice.