

# Overweight and Obesity

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## Definition

### 1. Overweight

A condition in which a person has **more body weight than is considered healthy** for their height, mainly due to **increased fat, muscle, bone, or water**.

### 2. Obesity

A **medical condition** characterized by **excessive accumulation of body fat** that presents a **risk to health**.

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## Classification (BMI-Based)

**BMI – Body Mass Index** is the most commonly used measure.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2}$$

| Category                   | BMI (kg/m <sup>2</sup> ) |
|----------------------------|--------------------------|
| Underweight                | < 18.5                   |
| Normal weight              | 18.5 – 24.9              |
| Overweight                 | 25 – 29.9                |
| Obesity Class I            | 30 – 34.9                |
| Obesity Class II           | 35 – 39.9                |
| Obesity Class III (Morbid) | ≥ 40                     |

## Causes of Overweight and Obesity

### ◆ A. Lifestyle Factors

- Excessive **caloric intake** (junk food, sugary drinks)
- Physical **inactivity/sedentary lifestyle**
- Lack of **sleep** and irregular routines

### ◆ B. Genetic Factors

- Genes influence **fat storage, appetite regulation, and basal metabolic rate**.
- Examples: **FTO gene** (Fat mass and obesity-associated gene)

### ◆ C. Endocrine/Metabolic Causes

- Hypothyroidism
- Cushing's syndrome
- Insulin resistance
- Leptin deficiency (rare)

### ◆ D. Medications

- Steroids
- Antidepressants
- Antipsychotics

## ◆ E. Psychological and Social Factors

- Emotional eating
  - Depression, anxiety
  - Socioeconomic status and urbanization
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## 🔍 Diagnosis

- **BMI, Waist Circumference** (central obesity marker)
  - **Body Fat Percentage**
  - Lab tests: Blood sugar, lipid profile, thyroid function
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## 🔧 Prevention and Management

### 1. Lifestyle Modification

- Healthy balanced **diet** (low fat, sugar; high fiber)
- Regular **physical activity** (at least 150 minutes/week)
- Avoid **sedentary behavior** (limit screen time)
- **Behavioral therapy**, self-monitoring, stress management

### 2. Medical Treatment

- **Pharmacological agents:** e.g., orlistat (fat absorption inhibitor), GLP-1 agonists
- Used only if BMI  $\geq 30$ , or  $\geq 27$  with comorbidities

### 3. Bariatric Surgery

- For **severe obesity** (BMI  $\geq 40$  or  $\geq 35$  with complications)
  - Types: Gastric bypass, sleeve gastrectomy
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## 🌍 Obesity in Pakistan

- Rising obesity due to **urban lifestyle**, fast food culture, **lack of exercise**.
- High obesity prevalence among **women and children** in urban areas.
- Linked with increasing cases of **type 2 diabetes and hypertension**.