

Obesity

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Obesity-related diseases

- diabetes, hypertension, dyslipidemia, stroke, heart, neurological, psychological, respiratory, joint, gallbladder diseases, cancer etc.

Assessment of obesity

■ Body mass index (BMI) = weight(Kg) / height squared (meter²)

	<u>BMI (Kg/m²)</u>
underweight	< 18.5
normal	18.5 – 24.9
overweight	25 – 29.9
obesity	30 – 39.9
extreme obese	≥ 40

Therapy of obesity

- Mainstay = diet, lifestyle modification, exercise
- Therapeutic goal = loss of 10-25% baseline body weight, and further reduction yearly until ideal body weight

Diet control (most important):-

- Low calorie, low fat, low salt balanced diet. Avoid energy-dense foods (eg. alcohol, beverage, sugar, high fat foods). Increase grains, fruits and vegetables.

Exercise :-

- Better health and longevity
- Expend energy and calorie
- Begin with walking, then gradually increase intensity and duration as jogging, biking, aerobic dance, swimming, resistance training etc.
- Best predictor of long-term weight maintenance

Health benefits of exercise :-

- Maintain body weight and fat content
- Prevent weight/fat regain
- Reduce blood pressure, increase cardiac output, reduce risk of heart disease and stroke
- Reduce blood lipids. Improve blood glucose control and insulin sensitivity → reduce oral hypoglycemic drugs and insulin dosage
- Reduce bone/joint diseases. Reduce cancer risk.
- Reduce morbidity and mortality risks
- Increase immunity, pulmonary function, bone mineral density, psychological profile, muscular function, aerobic capacity

Drug therapy of obesity

Sibutramine

(10 mg qd)

- Mechanism of action = inhibit adrenergic and serotonergic systems and regulate food intake
- Side effects = dry mouth, headache, insomnia, constipation, hypotension, bradycardia, anxiety, delusion etc.

Orlistat (Xenical)

- Mechanism of action = reduce intestinal fat absorption
- Side effects = abdominal pain, liquid stool, fecal incontinence with oily stool, nausea, vomiting, flatulence

Metformin

- **Mechanism of action = reduce hepatic glucose production and intestinal glucose absorption, increase insulin sensitivity → increase peripheral glucose uptake**
- **Phentermine : anorectic drug affecting central noradrenergic or serotonergic systems**
- **Other drugs: eg.amphetamine, benzphetamine**

Behavior therapy

- Assess motivation, social and family background, environmental conditions, knowledge about diet and exercise etc.
- Self-monitoring to alter eating and activity habits

Surgery

- For severe obese with BMI > 40 Kg/m²
- Gastric banding, gastric bypass etc.