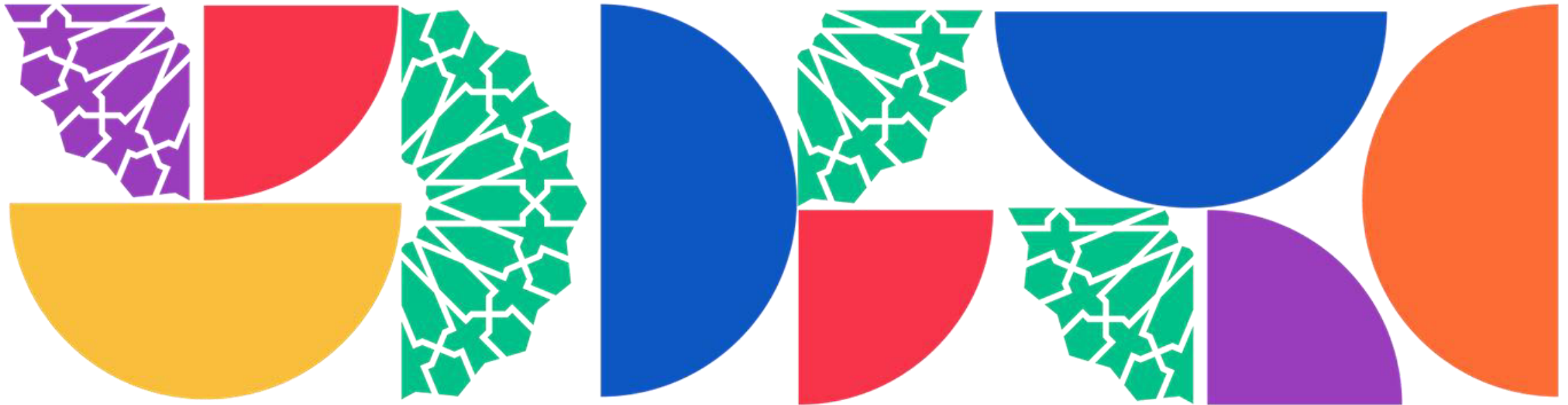


Health Awareness and Nutrition

Overweight and Obesity

Department of Clinical Nutrition and Dietetics
College of Health Sciences



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Obesity

Obesity is a chronic disease.

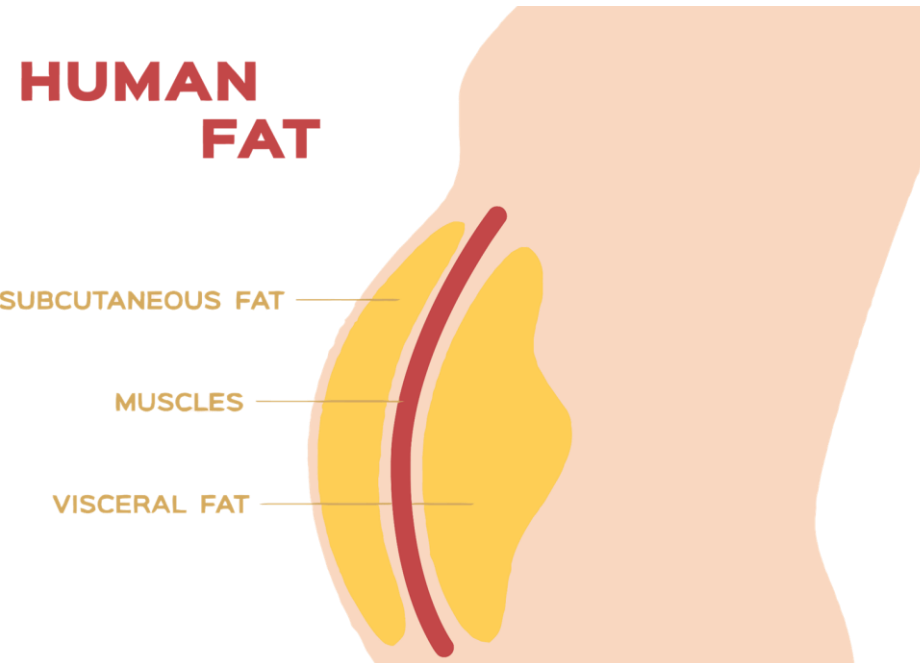
It is the result of **Positive Energy Balance**:

- Energy intake exceeds energy expenditure
- Low physical activity results in an excessive amount of body fat (adipose tissue)

Obesity is a **medical condition** in which **excess body fat has accumulated** and has **an adverse effect on health**, leading to increased health problems.



Central Obesity



Fat that accumulates around the central abdomen is called **visceral fat** and is very dangerous.

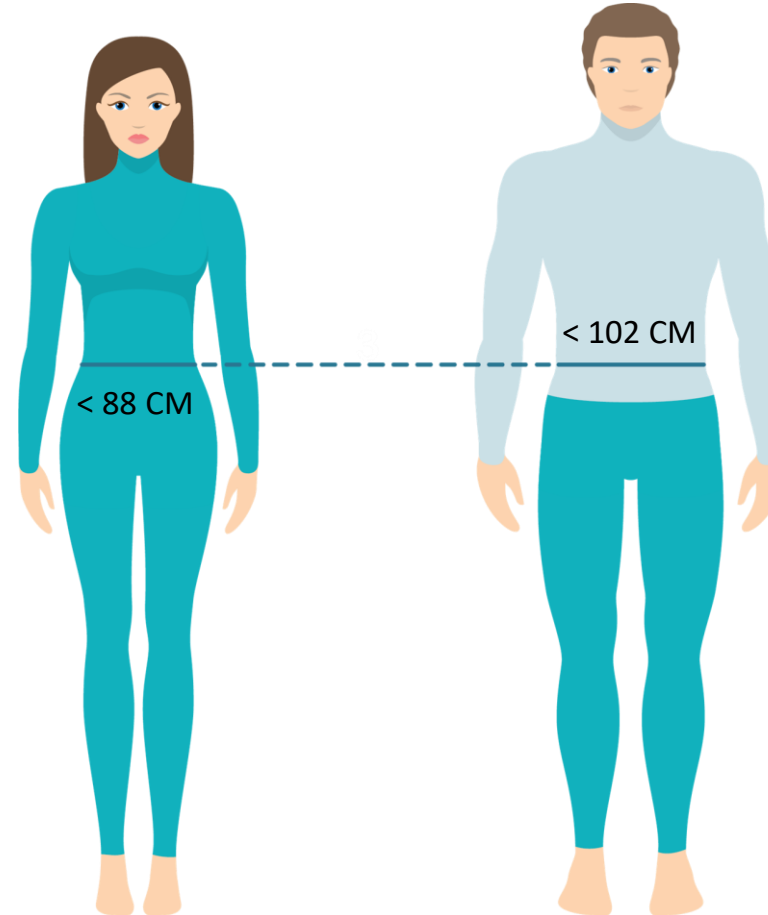
Central obesity increases the risk for lipid disorders, heart disease, diabetes, hypertension and others.

Central Obesity

Waist Circumference should be:

< 102 cm for males

< 88 cm for females



BMI

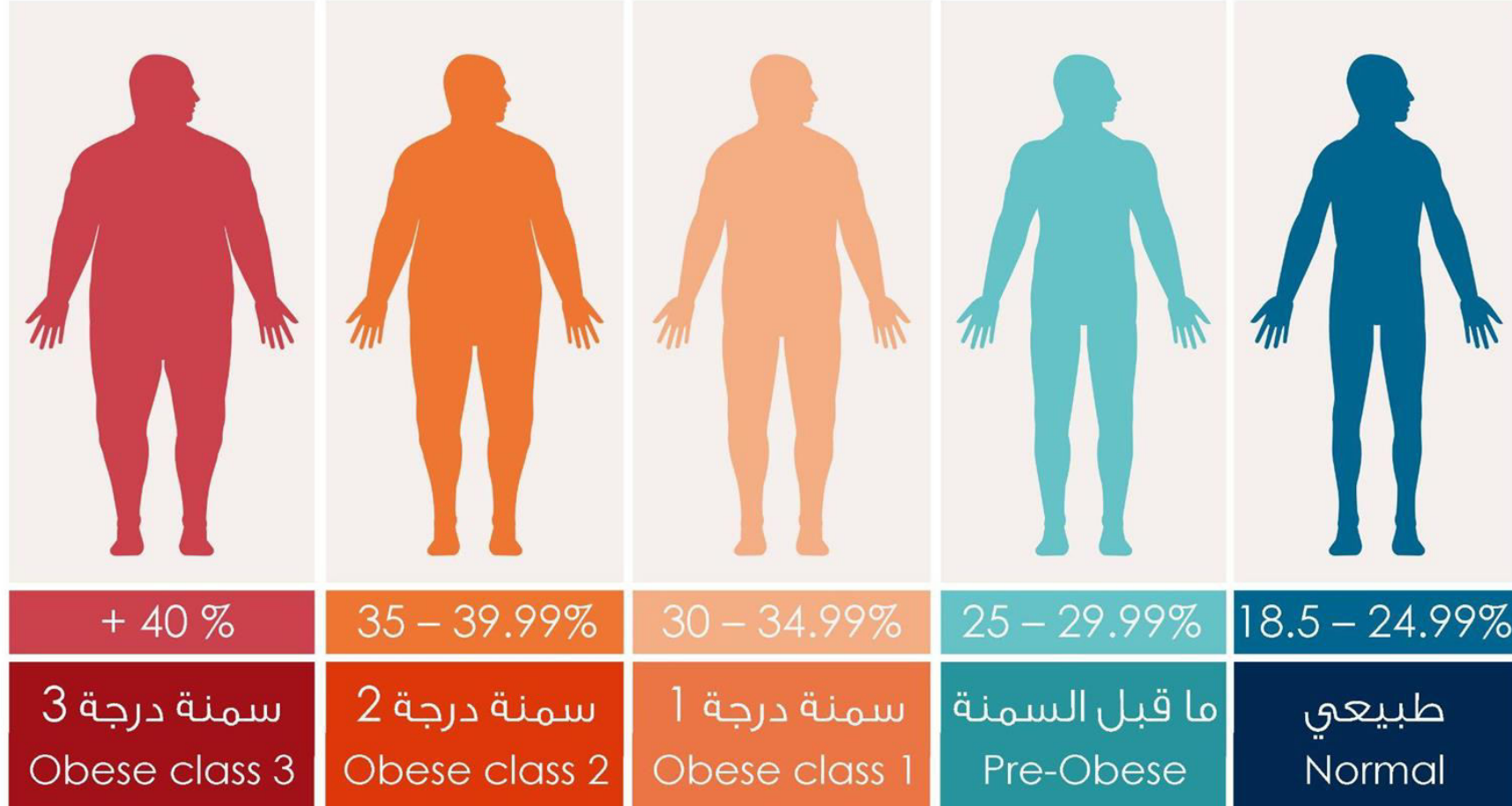
BMI	
18.5 or less	Underweight
18.5–24.9	Normal
25.0–29.9	Overweight
30.0–34.9	Obese, class I
35.0–39.9	Obese, class II
40 or greater	Extremely obese, class III

Body Mass Index (BMI) defines average relative weight for height in people older than 20 years.

BMI = weight in kg/(height in m)²

In general, the higher the BMI, the more **risk of diseases**.

What is Your BMI?



BMI

BMI Drawbacks:

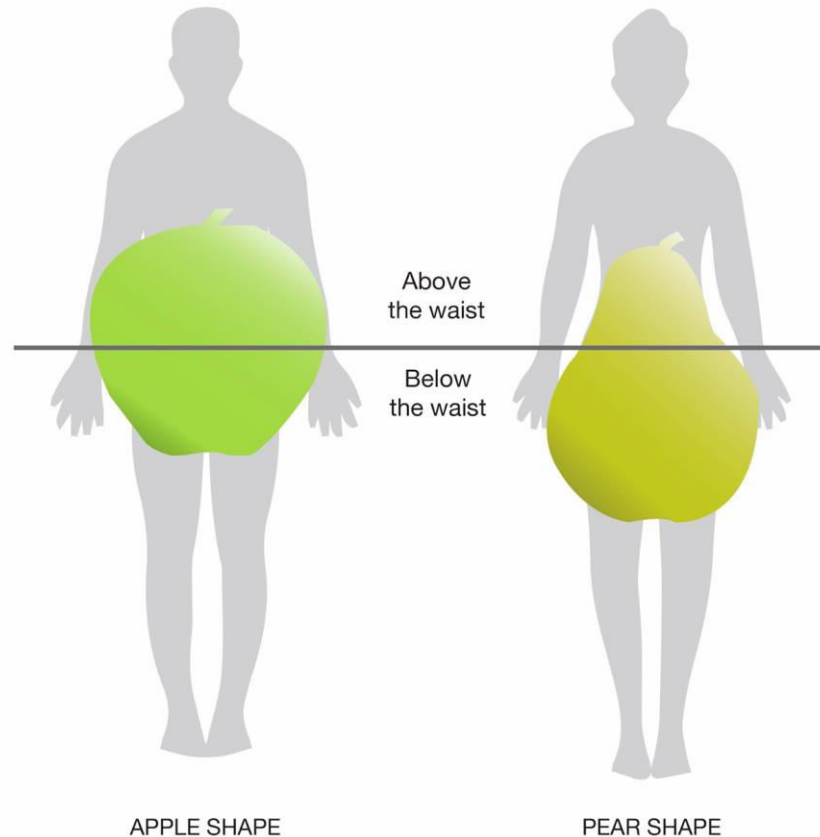
- BMI values fail to reveal **body composition** (% of body fat).
- BMI values fail to reveal **fat distribution** (location of fat).

BMI evaluation is not suitable for:

- **Athletes** (highly developed muscles falsely increase BMI)
- **Pregnant and lactating women**
- **Children** < 20 years old



Types of Obesity



Women: 20-30% body fat

Gynoid obesity

- *Pear Shaped* (fat mainly on the hip area)
- Encouraged by female hormones
- Stores of extra energy for pregnancy and lactation
- More difficult to lose than abdominal fat

Men: 12-20% body fat

Android obesity

- *Apple Shaped* (fat mainly on the waist area)
- Encouraged by male hormones
- Closer association with diseases
- (cardiovascular, hypertension, diabetes)

Causes of Obesity

Genetic factors: children from obese parents have a higher risk of being obese

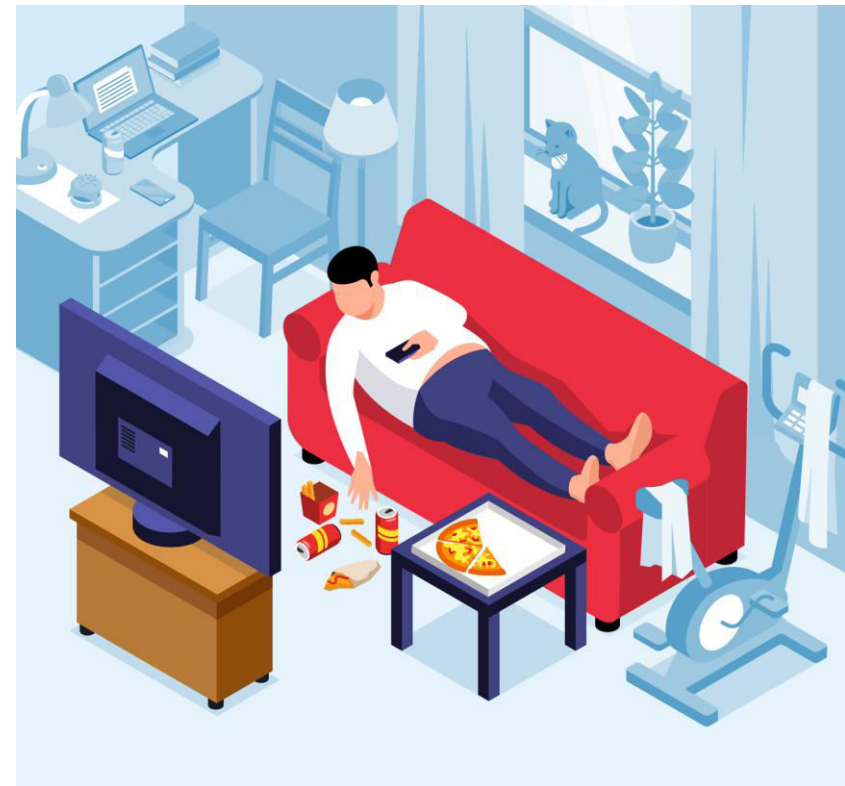
Psychological factors: tension, anxiety, fear, humiliation (food acts as emotional support)

Behavioral factors: sedentary lifestyle

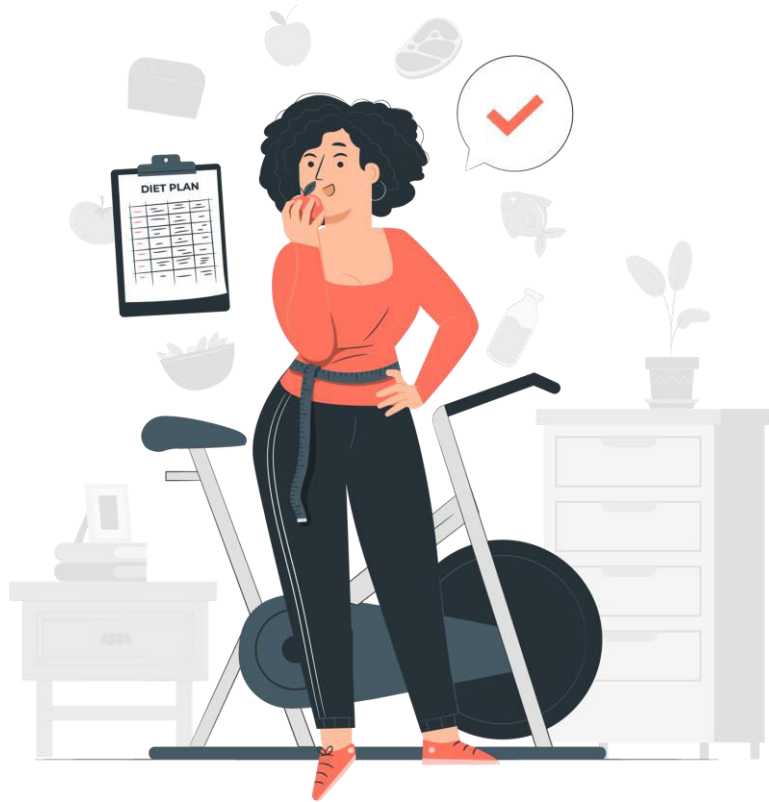
Eating habits: snacking in-between meals, eating late at night, intake of refined, starchy & fatty foods

Social aspects: social commitments, eating out, fast food restaurants

Physiological factors: the presence of disorders in the secretion of some hormones, especially thyroid hormones



Treatment of Obesity



Best ways to fight obesity:

- Diet therapy
- Physical activity
- Behavior modification
- Sometimes drugs and surgery are needed (with all of the above)

Dietary approach:

- Gradually lose weight
- Achieve and maintain desirable body weight and a good nutritional status
- Correct faulty eating habits

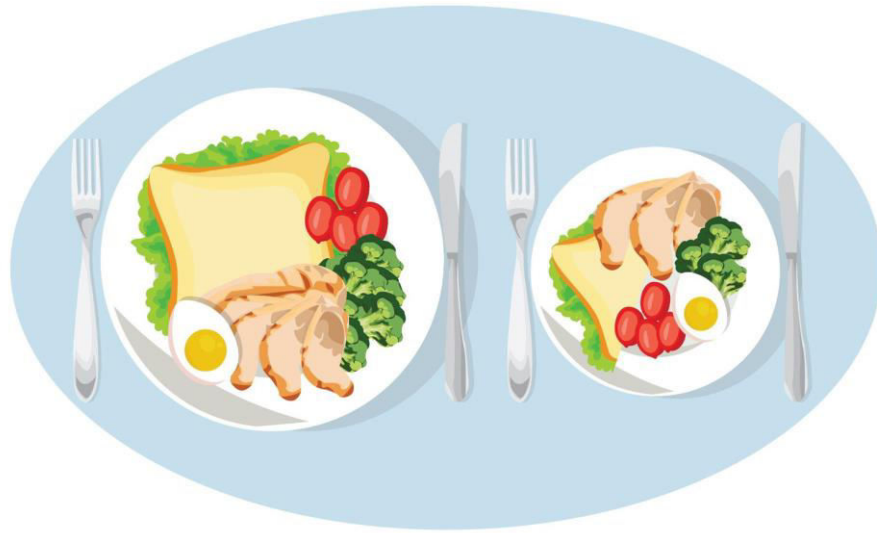
Treatment of Obesity

Weight reducing diets should be:

- Low in energy
- Adequate in other nutrients (vitamins and minerals)
- Provide satiety
- Easily adapted from family meals
- Easy to follow even when eating out
- Reasonable in cost
- Able to modify dietary behavior



Treatment of Obesity



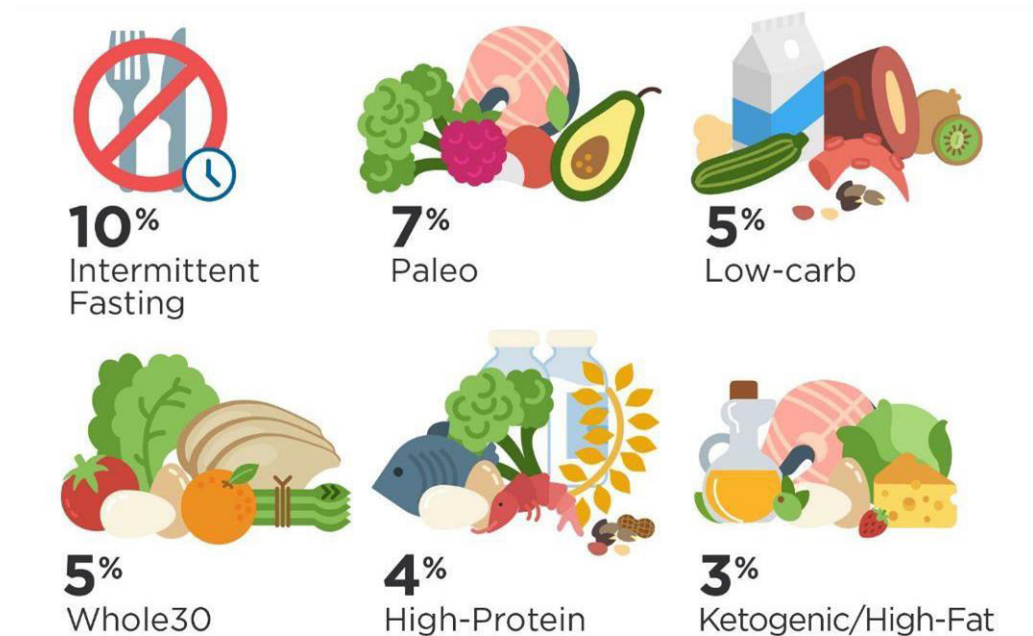
Other recommendations:

- Eat smaller portions
- Lower energy density of food
- Remember to drink more water
- Focus on complex carbohydrates (fibers)
- Choose fats sensibly
- Focus on physical activity

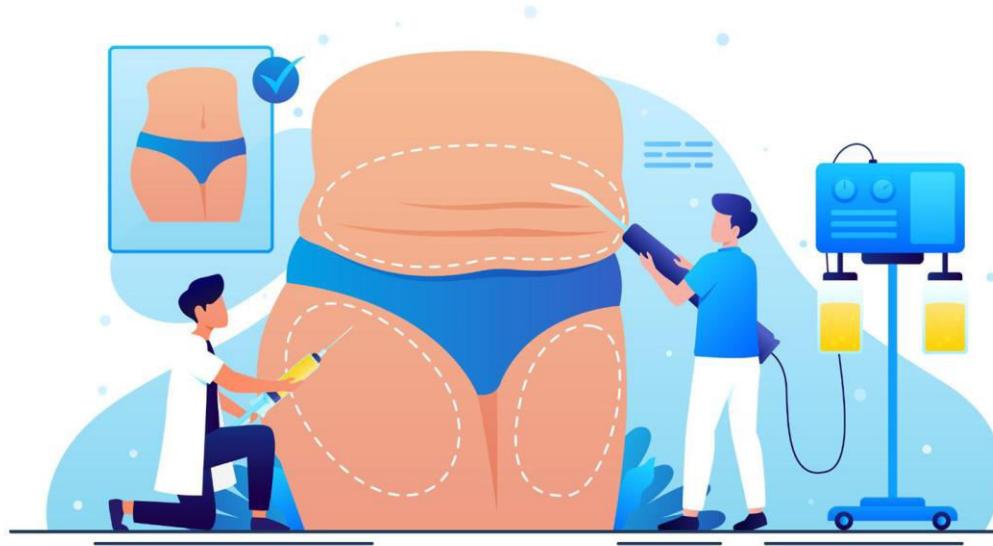
Extreme Approaches to Weight Loss

Fad diets:

“Quick action” diets based on **misinformation**, which result in nutritional imbalance.



Extreme Approaches to Weight Loss



Fasting/Starvation/Dieting: leads to the formation of toxic (poisonous) substances in body & may even cause death due to loss of heart muscle

Body wraps & special clothing: results in temporary weight loss

Drugs: appetite suppressants (drugs to help fat absorption etc.) have negative side effects

Surgery: like liposuction, gastric banding, gastric bypass, and ballooning also have side effects

Healthy Tips

- Set **achievable goals** for weight loss (0.5-1Kg per week).
- Adapt scientific needs to family meals by choosing **healthy methods of cooking** (baking, boiling, steaming, roasting) and fats, starch, sugar and salt intake in the diet.
- Do not be disturbed about weight plateaus (energy intake = energy output). Get started again with **exercise**.
- **Avoid binges** (eating too much at one time).
- **Eat small meals at frequent intervals** and spread energy throughout the day.
- Be careful while eating out – **choose healthy options** in smaller amounts.

