1.1. Understanding energy intake, weight loss and weight gain

The foods are digested and processed in the body to produce energy.

The amount of energy that will be produced by each type of food is measured in two ways - Calories or kilojoules. Energy is needed to maintain normal body functions.

Eating or drinking produces energy which is stored in the body.

Physical activity entails BURNING more energy.

On average, an adult male needs about 2,500kcal (10,500kJ) a day to maintain a healthy body weight and function normally while an adult female needs about 2,000kcal (8,400kJ) a day to maintain a healthy body weight. This will vary depending on age, weight, level of physical activity, health condition etc.

Eating and drinking in a manner that generates the same amount of energy that the body needs will not lead to weight gain.

However, eating and drinking in a manner that generates more amount of energy than the body needs leads to weight gain because the excess energy is stored as fat.

While, eating and drinking in a manner that generates less amount of energy than the body needs leads to weight loss because the existing fat are burned to produce energy.

The amount of energy in each type of food is different. Certain foods generate more energy than others.

let us arrange food types according to their energy content from highest to lowest

- Fats and oils
- Carbohydrates and proteins
- Fruits
- Vegetables

Note that fats and oils contain twice as much energy in the same grams of carbohydrate or proteins. One gram of fats and oils contains about 9 Calories while One gram of carbohydrate contains 4 Calories and One gram of proteins contain 4 Calories too.

As a rule of thumb:

- Eat food that are very high in calories in small amounts
- Eat food that are lower in calories in large amounts
- Be more physically active

Therefore, maintaining or losing weight requires a combination of diet control and more physical activity.