

The Eatwell Guide

•When choosing food and drinks, current healthy eating guidelines should be followed.

KS3 Food Knowledge Organiser



The Eatwell Guide

- Comprises 5 main food groups.
- Is suitable for most people over 2 years of age.
- Shows the proportions in which different groups of foods are needed to have a well-balanced and healthy diet.
- Shows proportions representative of food eaten over a day or more.

Hydration

- Aim to drink 6-8 glasses of fluid every day.
- Water, lower fat milk and sugar-free drinks including tea and coffee all count.
- Fruit juice and smoothies also count but should be limited to no more than a combined total of 150ml per day.

KEY TERMS

The Eatwell Guide:

A healthy eating model showing the types and proportions of foods needed in the diet.

Hydration:

The process of replacing water in the body.

Dietary fibre:

A type of carbohydrate found in plant foods.

Composite/combination food:

Food made with ingredients from more than one food group.

RDA:

Recommended daily allowance

RI:

Reference intake

Fruit and vegetables

- This group should make up just over a third of the food eaten each day.
- Aim to eat at least five portions of a variety each day.
- Choose from fresh, frozen, canned, dried or juiced.
- A portion is around 80g (3 heaped tbs).
- 30g of dried fruit or 150ml glass of fruit juice or smoothie count as a max of 1 portion each day.

Potatoes, bread, rice, pasta, or other starchy carbohydrates

- Base meals around starchy carbohydrate food.
- This group should make up just over a third of the diet.
- Choose higher-fibre, wholegrain varieties.

Dairy and alternatives

- Good sources of protein and vitamins.
- An important source of calcium, which helps to keep bones strong.
- Should go for lower fat and lower sugar products where possible.

Beans, pulses, fish, eggs, meat and other protein

- Sources of protein, vitamins, and minerals.
- Recommendations include to aim for at least two portions of fish a week, one oily, and.
- People who eat more than 90g/day of red or processed meat, should cut down to no more than 70g/day.

Oil and spreads

- Unsaturated fats are healthier fats that are usually from plant sources and in liquid form as oil, e.g., olive oil.
- Generally, people are eating too much saturated fat and need to reduce consumption.
- Saturated fats tend be animal based (cheese, cream and butter)

Foods high fat, salt, and sugar

- Includes products such as chocolate, cakes, biscuits, full-sugar soft drinks, butter, and ice cream.
- Are high in fat, sugar and energy and are not needed in the diet.
- If included, should be had infrequently and in small amounts.

Fibre

- Dietary fibre is a type of carbohydrate found in plant foods.
- Food examples include wholegrain cereals and cereal products; oats; beans; lentils; fruit; vegetables; nuts; and seeds.
- Dietary fibre helps to reduce the risk of heart disease, diabetes, and some cancers; help weight control; bulk up stools; prevent constipation; improve gut health.
- The recommended average intake for dietary fibre is 30g per day for adults.

Meals and snacks can be sorted into The Eatwell Guide food groups.

Composite/combination food - Lasagna

Pasta (lasagna sheets): **Potatoes, bread, rice, pasta, or other starchy carbohydrates**

Onions, garlic and chopped tomatoes: **Fruit and vegetables.**

Lean minced meat (or meat substitute): **Beans, pulses, fish, eggs, meat, and other protein** –

Cheese sauce made with milk and cheese: **Dairy and alternatives.**

Olive/vegetable oil used to cook onions and mince: **Oil and spreads.**

8 tips for healthier eating

These eight practical tips cover the basics of healthy eating and can help you make healthier choices.

- Base your meals on starchy carbohydrates.
- Eat lots of fruit and veg.
- Eat more fish – including a portion of oily fish.
- Cut down on saturated fat and sugar.
- Eat less salt (max. 6g a day for adults).
- Get active and be a healthy weight.
- Do not get thirsty.
- Do not skip breakfast.



To find out more, go to: <https://bit.ly/2QzUMfe>

Energy, nutrients, and digestion

Food and drinks provide energy and nutrients in different amounts, they have important functions in the body and people require different amounts during their life.

Digestion involves different parts of the body, each having an important role.

Energy

Energy is essential for life, and is required to fuel many different body processes, growth, and activities.

These include:

- keeping the heart beating.
- keeping the organs functioning.
- maintenance of body temperature;
- muscle contraction.

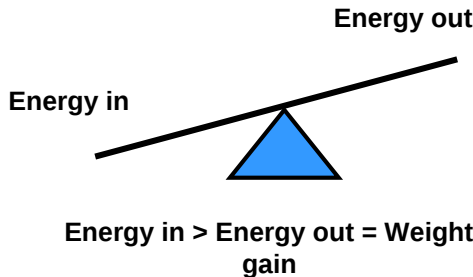
Different people need different amounts of dietary energy depending on their:

- age.
- gender.
- body size;
- level of
- activity.
- genes.



Energy balance

To maintain body weight, it is necessary to balance energy intake (from food and drink) with energy expenditure (from activity).



Stages of digestion

Ingestion - the intake of food into the gastrointestinal (GI) tract.

Digestion - a series of physical and chemical processes which begin in the mouth but take place mainly in the stomach and small intestine.

Absorption - the passage of digested food substances across the gastrointestinal lining into the bloodstream and lymphatic system.

Elimination - the excretion of undigested food substances (such as cellulose) or waste in faeces.

Energy from food

- Energy intake is measured in joules (J) or kilojoules (kJ), but many people are more familiar with the term calories (kcal).
- Different macronutrients provide different amounts of energy.

	Energy per 100g
Carbohydrate	16kJ (3.75 kcals)
Protein	17kJ (4 kcals)
Alcohol	29kJ (7kcals)
Fat	37kJ (9 kcals)

Energy requirements vary from person to person, depending on the Basal Metabolic Rate (BMR) and Physical Activity Level (PAL).

Total energy expenditure = BMR x PAL

Body Mass Index (BMI) can be used to identify if an adult is a correct weight for height.

BMI = $\frac{\text{weight (kg)}}{(\text{height in m})^2}$

Recommended BMI range (adults)

Less than 18.5	Underweight
18.5 to 25	Desirable
25-30	Overweight
30-35	Obese (Class I)
35-40	Obese (Class II)
Over 40	Morbidly obese

Key terms

Energy: The power the body requires to stay alive and function.

Digestion: The process by which food is broken down in the digestive tract to release nutrients for absorption.

Macronutrients: Nutrients needed to provide energy and as the building blocks for growth and maintenance of the body.

Micronutrients: Nutrients which are needed in the diet in very small amounts.

Nutrients

There are two different types of nutrients:

- macronutrients.
- micronutrients.

There are three macronutrients that are essential for health:

- carbohydrate.
- protein.
- fat.

There are two types of micronutrients:

- vitamins.
- minerals.

Carbohydrate

Free sugars include all sugars added to foods, plus sugars naturally present in honey, syrups and unsweetened fruit juice.

Fibre is a term used for plant-based carbohydrates that are not digested in the small intestine.

Sugars include a variety of different sugar molecules such as sucrose

Starchy foods are the main source of carbohydrate for most people and are an important source of energy. We should be choosing wholegrain versions of starchy foods where possible.

Protein

Protein is made up of building blocks called amino acids. There are 20 amino acids found in protein. For adults, eight of these must be provided by the diet (this is higher in children). These are called essential amino acids, which cannot be made by the human body.

Fat

Sources of fat include:

- saturated fat.
- monounsaturated fat.
- polyunsaturated fat.

A high saturated fat intake is linked with high blood cholesterol levels.

Micronutrients

Vitamins

There are two groups of vitamins:

- fat-soluble vitamins, e.g., vitamins A and D.
- water-soluble vitamins, e.g., B vitamins (thiamine, riboflavin, niacin, folate, vitamin B12) and vitamin C.

Minerals

Minerals are inorganic substances required by the body in small amounts for a variety of different functions. Examples include calcium, sodium and iron. Most micronutrients are mostly provided by the diet. An exception is vitamin D which can be synthesised by the action of sunlight on the skin.

Calcium is essential for a number of important functions such as the maintenance of bones and teeth, blood clotting and normal muscle function.

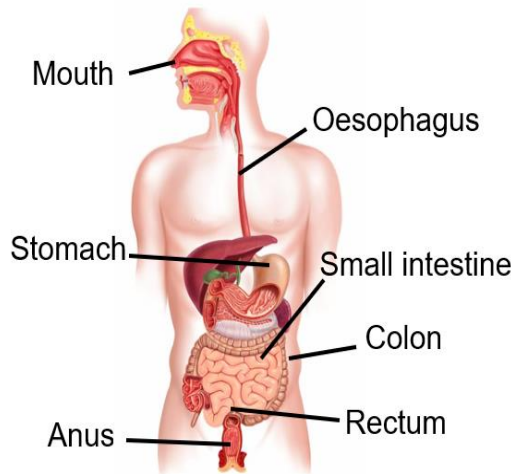
Sodium is needed for regulating the amount of water and other substances in the body.

Iron is essential for the formation of hemoglobin in red blood cells. Red blood cells carry oxygen and transport it around the body. Iron is also required for normal metabolism and removing waste substances from the body.

Digestion

The body requires energy from food and drink. Our bodies release the energy and nutrients from food.

The food passes down the Gastrointestinal tract (GI) tract as shown below.



Diet and health

There is a link between a poor diet, and the risk of developing some diseases. This includes the risk of:

- cancer;
- Coronary heart disease (CHD);
- bone health;
- anaemia.

Obesity

People who are obese are more likely to suffer from CHD, type 2 diabetes, gall stones, arthritis, high blood pressure and some types of cancers, i.e. colon,