

Health and Lifestyle

Know the facts		Key words	
1	The body needs a balanced diet with lipids, proteins, vitamins, minerals, dietary fibre and water, for its cells' energy, growth and maintenance.	1	Enzyme: A biological catalyst - a substance that speed up the chemical reactions of digestion.
2	Food tests are used to find out which nutrients a food contains.	2	Dietary fibre: Parts of plants that cannot be digested, which help the body eliminate waste.
3	Overweight people have a higher risk of heart disease, diabetes and some cancers.	3	Carbohydrates: The body's main source of energy. There are two types: simple (sugars) and complex (starch).
4	Organs of the digestive system are adapted to break large food molecules into small ones which can travel in the blood to cells, and are used for life processes.	4	Lipids: (fats and oils) a source of energy. Found in butter, milk, eggs, nuts.
5	Calcium is a mineral needed for strong teeth and bones.	5	Protein: Nutrient your body uses to build new tissue for growth and repair. Sources are meat, fish, eggs, dairy products, beans, nuts and seeds.
6	Vitamins and minerals are needed in small amounts to keep the body healthy.	6	Stomach: A sack where food is mixed with acidic juices to start the digestion of protein and kill microorganisms.
7	Organs and tissues in digestion are adapted for their role.	7	Small intestine: Upper part of the intestine where digestion is completed and nutrients are absorbed by the blood.
8	Enzymes are proteins that can break large molecules into smaller soluble molecules.	8	Large intestine: Lower part of the intestine from which water is absorbed and where faeces are formed.
9	A person with an addiction can suffer withdrawal symptoms.	9	Gut bacteria: Microorganisms that naturally live in the intestine and help food break down.
10	Alcoholic drinks contain the drug ethanol.	10	Iron: is a mineral important for red blood cell production.
11	Smoking tobacco causes breathing problems, cancer, heart attacks and stroke.	11	Ethanol: the addictive chemical in alcoholic drinks. It is a depressant, it slows down the nervous system.
12	Tobacco contains nicotine which is a stimulant, it speeds up the nervous system, and is addictive.		

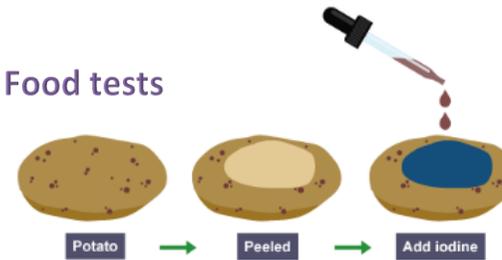
A drug is a substance that has an effect on the body:

- medicines are drugs that help people suffering from pain or disease
- recreational drugs are taken by people because they like the effects they have on their bodies

Nutrient	Use in the body	Good sources
Carbohydrate	To provide energy	Cereals, bread, pasta, rice and potatoes
Protein	For growth and repair	Fish, meat, eggs, beans, pulses and dairy products
Lipids (fats and oils)	To provide energy. Also to store energy in the body and insulate it against the cold.	Butter, oil and nuts
Minerals	Needed in small amounts to maintain health	Salt, milk (for calcium) and liver (for iron)
Vitamins	Needed in small amounts to maintain health	Fruit, vegetables, dairy foods
Dietary fibre	To provide roughage to help to keep the food moving through the gut	Vegetables, bran
Water	Needed for cells and body fluids	Water, fruit juice, milk fluids

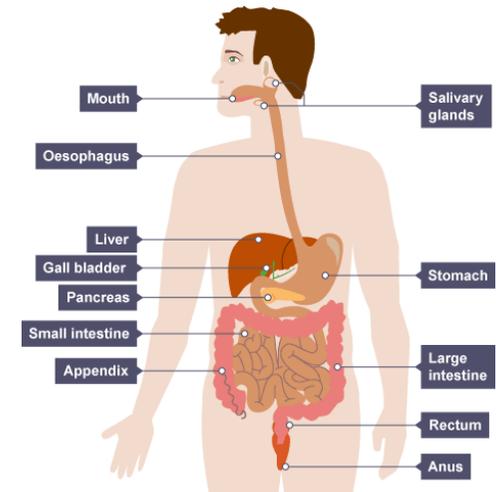
A balanced diet is one that contains the correct amounts of all the necessary nutrients needed for healthy growth and activity. An imbalanced or poor diet can contain too much or too little of a particular nutrient. If you have too little of a particular nutrient, we say that you have a deficiency in that nutrient.

Food tests



There are several tests for food chemicals. These can be used to detect the presence of food chemicals, but not how much is present.

Smoking is very harmful to health. It's estimated that nearly one in every five deaths (of adults aged over 35 in England) is connected to smoking. Tobacco smoke contains many harmful substances. These include: tar, nicotine and carbon monoxide. Tar causes cancer of the lungs, mouth and throat. Nicotine is addictive. It causes a smoker to want more cigarettes. Carbon monoxide is a gas that takes the place of oxygen in red blood cells. This reduces the amount of oxygen that the blood can carry, causing heart disease.



Stages of digestion

- food is digested in the mouth, stomach and small intestine
- digested food is absorbed into the bloodstream in the small intestine
- excess water is absorbed back into the body in the large intestine
- any undigested food passes out of the anus as faeces when we go to the toilet

Enzymes are not living things. They are just special proteins that can break large molecules into small molecules. Different types of enzymes can break down different nutrients.

Food type	Description of test	Positive result	Negative result
Sugar (glucose)	Add Benedict's solution and heat	Turns brick red	Stays blue
Starch	Add iodine solution	Turns blue-black	Stays brown
Protein	Add Biuret solution	Turns purple	Stays blue
Lipid	Mix with ethanol then add to water	Water turns milky	Water remains clear