

**Nutrients:** are chemical messengers in foods. They are needed to keep the body healthy throughout life. Each nutrient has a special job (function) to do in the body. Water is **not** a nutrient, however it is essential for life.

Nutrient	Function in the body	Source (where found)
<b>Carbohydrate</b>	Source of energy Dietary fibre is not digested to provide energy	Sugars: jam, honey, fruit, sweets, juice Starch: bread, rice, pasta, potatoes Fibre: cell walls of plants
<b>Fat</b>	Concentrated source of energy Provides essential fatty acids such as omega 3' Provides fat soluble vitamins A,D,E,K,	Saturated: butter, lard, cheese, visible fat on meat Unsaturated: oils, avocado,
<b>Protein</b>	Growth and repair in the body Keeping cells healthy	Meat, fish, eggs milk, cheese Quorn, tofu, soya, nuts, seeds
<b>Calcium</b>	Development of strong bones and teeth	Milk, cheese, yoghurt, dark green leafy vegetables such as broccoli and cabbage. Fortified soya products and bread.
<b>Iron</b>	Formation of haemoglobin in red blood cells	Liver, red meat, eggs, wholegrains, , dark green leafy vegetables, nuts, pulses
<b>Vitamin A</b>	Resistance to infection Healthy skin and eyes. Vision in dim light	Milk and liver, Dark green leafy vegetables and orange fruit and vegetables e.g. carrots
<b>Vitamin B</b>	Release energy from carbohydrate Healthy nervous system	wholemeal flour, cereals, marmite, eggs
<b>Vitamin C</b>	Healthy skin, Helps fight infections Needed to help absorb iron from foods	Fruit and vegetables
<b>Vitamin D</b>	Needed for absorption of calcium to keep bones strong and healthy	Eggs, margarine, oily fish, fortified cereals, sunlight

**Fat soluble vitamins** are: Vitamins A, D, E and K

**Water Soluble vitamins** are B and C. You must have water soluble vitamins in your diet



Stage in life cycle	Dietary needs
<b>Pregnancy</b>	A healthy varied balanced diet is important during pregnancy 400mcg folic acid (folate) daily for 12 weeks pregnancy to reduce risk of neural tube defects. Such as spina bifida. Energy requirements increase in the last trimester by 200 calories daily
<b>Infancy</b>	Breast milk provides all the necessary nutrients until the baby is 6 months old. Breast milk provides antibodies and white blood cells which help protect the baby from infection. Weaning is the introduction of more foods to the baby's diet, it usually occurs when the baby is 6 months old.
<b>Childhood</b>	High energy requirements needed as children grow rapidly, still have a small stomach so often need small frequent meals and snacks. Calcium and vitamin D are important for strong teeth and bones Children should be encouraged to make healthy choices, and be a healthy weight for their height. Food and drinks high in sugar should only be given occasionally.
<b>Adolescence</b>	Rapid growth and development and is when puberty occurs. Boys require more protein and energy than girls for growth. Girls need more iron than boys to replace menstrual losses girls 14.8mg boys 11.3mg
<b>Adulthood</b>	Healthy balanced diet important for good health No extra energy requirements other than during pregnancy and lactation (breastfeeding). This requires 600 extra calories daily and more demand for nutrients such as calcium, phosphorous, vitamin A and C.
<b>Elderly</b>	Energy requirements gradually fall when we are over 50 as our physical activity levels fall. Osteoporosis is major problem in the elderly especially women over 65, it occurs when bones become weak, brittle and break easily. This may lead to fractures in the wrist, back and hips. They are encouraged to have a good intake of calcium rich foods and once over 65 encouraged to take a vitamin D supplement.



### Eight tips for healthy eating

#### Base your meals on starchy carbohydrates

Should make up just over one third of the food you eat. They include potatoes, bread, rice, pasta and cereals.

#### Eat lots of fruit and veg

It's recommended that we eat at least [five portions of a variety of fruit and veg every day](#).

#### Eat more fish – including a portion of oily fish

Fish is a good source of protein and contains many vitamins and minerals. Aim to eat at least [two portions of fish](#) a week, including at least one portion of oily fish.

#### Cut down on saturated fat and sugar

Too much saturated fat can increase the amount of cholesterol in the blood, which increases your risk of developing heart disease. Found in hard cheese, butter, cream, pies etc.

#### Eat less salt

No more than 6g a day for adults

#### Get active and be a healthy weight

#### Don't get thirsty

We need to drink plenty of fluids to stop us getting dehydrated – the government recommends 6-8 glasses every day.

#### Don't skip breakfast

A [wholegrain, lower-sugar cereal](#) with fruit sliced over the top is a tasty

Energy requirements depend on :  
Age, gender, physical activity, body size