




## Maximise Energy – D.E.A.R.

### Diet – Exercise – Attitude – Rest

#### DIET – FOOD GROUPS

#### Macronutrients








Required in large quantities daily for energy, growth and health.

Nutrient	Function	Sources
<b>Carbohydrate</b> 	Provides energy for the body.	All starchy foods, such as bread, rice, potatoes, pasta, cereals and cereal products; fruit and starchy vegetables, milk and milk products, sugar, preserves and confectionery.
<b>Protein</b> 	Provides amino acids (building blocks) that we can't make ourselves. Needed for growth, development and repair of the body. Also provides energy.	Meat, fish, eggs, dairy foods, cereal products such as bread, soya products, nuts and pulses.
<b>Fat</b> 	Provides essential fatty acids (that we can't make ourselves but need in small amounts), as well as energy. It also carries important fat-soluble vitamins and is important for their absorption.	Fats and oils, meat and meat products, dairy foods, oily fish, nuts, cakes, biscuits, pastry products, crisps and other snacks, chocolate.

## Micronutrients





### Water-soluble vitamins

Water-soluble vitamins cannot be stored in our bodies and are readily excreted. These include vitamin B<sub>1</sub>, vitamin B<sub>2</sub>, vitamin B<sub>3</sub>, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, folate and vitamin C. Required daily.

Nutrient	Function	Sources
<b>Vitamin B<sub>1</sub></b> (Thiamin) 	Helps to release energy from carbohydrate. It is also involved in the nervous system and the heart.	Whole grains, nuts, meat (especially pork), fruit and vegetables and fortified breakfast cereals.
<b>Vitamin B<sub>2</sub></b> (Riboflavin) 	Helps to release energy from food and is needed for the normal structure and functioning of the skin and body linings.	Milk and milk products, eggs, rice, fortified breakfast cereals, liver, pulses, mushrooms and green vegetables
<b>Vitamin B<sub>3</sub></b> (Niacin) 	Helps to release energy from food, and is important for the normal structure of the skin and body linings. It also keeps the digestive and nervous systems healthy.	Meat, wheat and maize flour, eggs, milk and milk products and yeast.
<b>Vitamin B<sub>6</sub></b> 	Helps to release energy from protein, and helps to form haemoglobin in blood (the substance which carries oxygen around our bodies).	Poultry, white fish, milk and milk products, eggs, whole grains, soya beans, peanuts and some vegetables.
<b>Vitamin B<sub>12</sub></b> 	Important for making red blood cells and to keep the nervous system healthy. Also helps to release energy from food.	Meat, fish, milk and milk products, cheese, eggs, yeast extract and fortified breakfast cereals.
<b>Folate/ Folic acid</b> 	Needed for the formation of healthy red blood cells. It is also needed for the nervous system and specifically for the development of the nervous system in unborn babies.	Green leafy vegetables, wholegrain products, liver, nuts, peas, oranges, bananas and fortified breakfast cereals.
<b>Vitamin C</b> 	Acts as an antioxidant and is important for the normal structure and functioning of body tissues. It also helps the body to absorb iron from non-meat sources such as vegetables, as well as assisting the healing process.	Fruit especially citrus fruits and berries; green vegetables, peppers and tomatoes. Also found in potatoes (especially new potatoes).




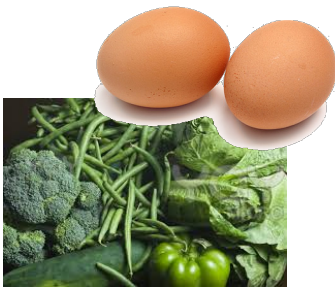

### Fat-soluble vitamins






Fat-soluble vitamins are absorbed through the gut with the help of fat. These include vitamin A, vitamin D, vitamin E and vitamin K. Required daily.

Nutrient	Function	Sources
<b>Vitamin A</b> 	Important for the normal structure and functioning of the skin and body linings, e.g. in lungs. It also helps with vision in dim light as well as keeping the immune system healthy.	Liver, whole milk, cheese, butter, spreads, carrots, dark green leafy vegetables and orange-coloured fruits, e.g. mangoes and apricots.
<b>Vitamin D</b> 	Needed for the absorption of calcium and phosphorus from foods, to keep bones healthy. Recent research also suggests that vitamin D enhances immune function and improves muscle strength.	Oily fish, eggs, meat, fortified cereals and spreads. Most is obtained through the action of sunlight on our skin during the summer months.
<b>Vitamin E</b> 	Acts as an antioxidant and protects the cells in our bodies against damage.	Vegetable and seed oils and spreads, nuts and seeds.
<b>Vitamin K</b> 	Needed for the normal clotting of blood and is required for normal bone structure.	Green leafy vegetables, meat and dairy products.

## Minerals



There are certain minerals we need to keep our bodies healthy. These include calcium, fluoride, iodine, iron, magnesium, phosphorous, potassium, selenium, sodium and zinc. Required daily.

Nutrient	Function	Sources
<b>Calcium</b> 	Important for the formation and maintenance of strong bones and teeth, as well as the functioning of nerves and muscles. It is also involved in blood clotting.	Milk and milk products, cheese and other dairy products, some green leafy vegetables such as broccoli, fortified soya bean products, canned fish (if containing bones that are soft and can be consumed) and bread.
<b>Fluoride</b> 	Helps with the formation of strong teeth and protects against dental decay (caries).	Fluoridated water, tea, fish and toothpaste.
<b>Iodine</b> 	Needed to make thyroid hormones, which control many metabolic processes, and keep our bodies healthy.	Milk and milk products, sea fish, shellfish, seaweed and iodine-fortified foods, such as some salt.
<b>Iron</b> 	Required for making red blood cells, which transport oxygen around the body. Also needed for normal metabolism and the functioning of enzymes that remove unwanted substances from the body.	Liver, red meat, pulses, nuts, eggs, dried fruits, poultry, fish, whole grains and dark green leafy vegetables.
<b>Magnesium</b> 	Helps to release energy from food and to maintain water balance. It is also important for the formation of strong muscles, bones and teeth.	Found widely in foods, particularly green leafy vegetables, nuts, bread, fish, meat, milk and milk products.

<b>Phosphorous</b> 	<p>Needed for the formation of healthy bones and teeth, and for the release of energy from food.</p>	<p>Red meat, milk and milk products, fish, poultry, bread, rice and oats.</p>
<b>Potassium</b> 	<p>Controls water balance in our bodies and helps maintain a healthy blood pressure. It is also involved in the normal functioning of nerves.</p>	<p>Fruit (especially bananas), vegetables, meat, fish, shellfish, milk and milk products, nuts, seeds and pulses.</p>
<b>Sodium</b> 	<p>Helps regulate the water content in the body and the balance of electrolytes. Also involved in the use of energy, as well as the functioning of the central nervous system.</p>	<p>Very small amounts in raw foods. Often added during processing, preparation, preservation and serving. Currently intakes of sodium are too high and so although some sodium is essential, most people need to reduce their intake substantially.</p>
<b>Selenium</b> 	<p>An important component of the body's defence system that protects our bodies against damage. It is also necessary for the use of iodine in thyroid hormone production, as well as the normal functioning of the reproductive system.</p>	<p>Brazil nuts, bread, fish, meat and eggs.</p>
<b>Zinc</b> 	<p>Helps to release energy from food. Needed for cell division, growth and tissue repair. Also necessary for normal reproductive development, the immune system and healing of wounds.</p>	<p>Meat, milk and milk products, cheese, eggs, shellfish, wholegrain cereals, nuts and pulses.</p>

## Water and Fibre

Water and fibre are not nutrients but are important substances that we need to include in our diets to stay healthy. Needed daily.

Non-nutrient	Function	Sources
<b>Water</b> 	<p>Not a nutrient in the classical sense, but is essential for our bodies to work properly, for example for regulating body temperature, cushioning the joints, controlling blood pressure and keeping the body in balance.</p>	<p>All drinks including water, milk, and juices. We actually get roughly 20% of our water requirements from the food we eat. Water-rich foods include fruit and vegetables, soups, stews and sauces.</p>
<b>Fibre</b> 	<p>Not a nutrient but improves the movement of the gut contents and helps prevent constipation. Some types of fibre also help lower blood cholesterol and glucose levels.</p>	<p>Cereals, beans, pulses, lentils, fruit and vegetables.</p>

Source - British Nutrition Foundation - [www.nutrition.org.uk](http://www.nutrition.org.uk)