

# Vitamins and minerals in our food

Different foods provide us with different vitamins and minerals in varying amounts, which is why it is important to aim for a varied and balanced diet that includes foods from all groups shown in the Eatwell Guide in appropriate amounts. This resource provides more information about the various roles of vitamins and minerals in the body, and which foods you can find them in.

The **Reference Intake (RI)** for vitamins and minerals can be found on the back of pack for some products. This information is intended to help you easily compare the nutritional content of products. It is not intended as individual dietary advice, as requirements for vitamins and minerals vary depending on our age, body size, sex and physiological state (for example, requirements may be higher during pregnancy). Some RI values are given in **milligrams (mg)**, while others are in **micrograms (µg)**. A thousand micrograms is equivalent to 1 milligram.

## Water-soluble vitamins

	What does it do?	Food sources	Reference intake (RI)
<b>Vitamin B1 (Thiamin)</b> 	Helps to release energy from food. It also helps our nervous system and heart function normally.	Bread, fortified breakfast cereals, nuts and seeds, meat (especially pork), beans and peas.	1.1 mg
<b>Vitamin B2 (Riboflavin)</b> 	Helps to release energy from food and helps maintain normal skin. It helps to maintain a normal nervous system and helps to reduce tiredness.	Milk and milk products, eggs, fortified breakfast cereals, offal, some oily fish (e.g. mackerel and sardines), mushrooms and almonds.	1.4 mg
<b>Vitamin B3 (Niacin)</b> 	Helps to release energy from food and helps to maintain normal skin. It also helps the nervous system function normally and helps reduce tiredness.	Meat, poultry, fish and shellfish, wholegrains (e.g. brown rice, wholewheat pasta and quinoa), bread and some nuts and seeds (e.g. peanuts and sesame seeds).	16 mg
<b>Vitamin B6</b>	Helps to make red blood cells, which carry oxygen around the body. It helps our immune system work	Meat, poultry, fish, fortified breakfast cereals, egg yolk, yeast extract, soya beans, sesame seeds,	1.4 mg



as it should, regulates hormones and helps to reduce tiredness.

some fruit and vegetables (e.g., banana, avocado and green pepper).

### Vitamin B<sub>12</sub>



Helps to make red blood cells, which carry oxygen around the body, and helps the nervous system function normally. Helps keep our immune system working as it should and helps to reduce tiredness.

Meat, fish, shellfish, milk, cheese, fromage frais, eggs, fortified yeast extract and fortified breakfast cereals.

2.5 µg

### Folate/Folic acid



Helps to make red blood cells, which carry oxygen around the body. Helps the immune system work as it should and helps to reduce tiredness. It is also needed for the normal development of the nervous system in unborn babies.

Green leafy vegetables, some breads (e.g. malted wheat and brown bread), offal, peas and beans, oranges, berries and fortified breakfast cereals.

200 µg

### Vitamin C



Helps to protect cells from damage. Helps with the formation of collagen, which is important for normal bones, gums, teeth and skin. It also helps the immune system work as it should and the nervous system to function normally.

Fruit (especially citrus fruits, blackcurrants, strawberries, papaya and kiwi), green vegetables, peppers and tomatoes.

80 mg

## Fat-soluble vitamins

	What does it do?	Food sources	Reference intake (RI)
<b>Vitamin A</b> 	Helps the immune system to work as it should. It also helps with vision and helps keep skin and the linings of some parts of the body, such as the nose, function normally.	Liver, cheese, eggs, dark green leafy vegetables and orange-coloured fruits and vegetables (e.g., carrot, sweet potato, butternut squash, cantaloupe melon and papaya).	800 µg
<b>Vitamin D</b> 	Helps the body to absorb calcium and helps to keep bones strong. It also helps muscles to function normally and the immune system to work as it should.	Oily fish, eggs, fortified breakfast cereals and fat spreads. In summer, the majority of people will get most of their vitamin D through the action of sunlight on the skin.	5 µg
<b>Vitamin E</b> 	Helps to protect the cells in our bodies against damage.	Vegetable and seed oils (e.g., olive, rapeseed, sunflower, peanut oils) nuts and seeds (e.g., sunflower seeds and almonds), avocados and olives.	12 mg
<b>Vitamin K</b> 	Needed for the normal clotting of blood and is required for normal bone structure.	Green vegetables (including leafy greens, broccoli, green beans and peas) and some oils (e.g., rapeseed, olive and soya oil).	75 µg

## Minerals

	What does it do?	Food sources	Reference intake (RI)
<p><b>Calcium</b></p> 	<p>Helps to build and maintain strong bones and teeth, as well as the normal functioning of nerves and muscles. It also helps blood clot normally.</p>	<p>Milk, cheese, yogurt, fromage frais, some green leafy vegetables (such as kale), calcium-fortified dairy-alternatives, canned fish (where soft bones are eaten) and breads (white, brown and wholegrain).</p>	<p>800 mg</p>
<p><b>Fluoride</b></p> 	<p>Helps with the formation of strong teeth and helps to reduce the risk of tooth decay.</p>	<p>Tap water, tea (and toothpaste).</p>	<p>3.5 mg</p>
<p><b>Iodine</b></p> 	<p>Helps to make thyroid hormones. It also helps the brain to function normally.</p>	<p>Milk, yogurt, cheese, fish, shellfish and eggs (and some fortified dairy alternative drinks).</p>	<p>150 µg</p>
<p><b>Iron</b></p> 	<p>Helps to make red blood cells, which carry oxygen around the body. It also helps the immune system to work as it should and helps the brain to function normally.</p>	<p>Offal, red meat, beans, pulses, nuts and seeds, fish (e.g. canned sardines, cockles and mussels), quinoa, wholemeal bread and dried fruit.</p>	<p>14 mg</p>
<p><b>Magnesium</b></p> 	<p>Helps to release energy from food. It also helps to maintain strong bones and helps muscles and nerves to function normally.</p>	<p>Nuts and seeds (e.g. Brazil nuts and sunflower seeds), wholegrain breakfast cereals, wholegrain and seeded breads, brown rice and quinoa.</p>	<p>375 mg</p>
<p><b>Phosphorus</b></p> 	<p>Helps to build strong bones and teeth and helps to release energy from food.</p>	<p>Red meat, poultry, fish, milk, cheese, yogurt, eggs, bread and wholegrains (such as brown rice and wholewheat pasta).</p>	<p>700 mg</p>

	What does it do?	Food sources	Reference intake (RI)
<p><b>Potassium</b></p> 	<p>Helps regulate the water content in the body and maintain a normal blood pressure. It also helps the nerves and muscles function normally.</p>	<p>Some fruit and vegetables (e.g. banana, blackcurrants, avocado, spinach, parsnip and beetroot), dried fruit (e.g. apricots, sultanas and figs), poultry, red meat, fish, milk and wholegrain breakfast cereals.</p>	<p>2000 mg</p>
<p><b>Sodium</b></p> 	<p>Helps regulate the water content in the body.</p>	<p>Very small amounts found naturally in foods. Often added as salt (sodium chloride) during processing, preparation, preservation and serving. Currently intakes of sodium are too high and most people need to reduce their intake substantially.</p>	<p>6 g salt (equivalent to about 2.4 g of sodium)</p>
<p><b>Selenium</b></p> 	<p>Helps to protect the cells in our bodies against damage. It also helps the immune system to work as it should, helps maintain normal skin and nails and normal fertility in males.</p>	<p>Some nuts and seeds (e.g. Brazil nuts, cashews and sunflower seeds), eggs, offal poultry, fish and shellfish.</p>	<p>55 µg</p>
<p><b>Zinc</b></p> 	<p>Contributes to normal mental skills and abilities and helps to maintain normal hair, skin and nails. It also helps with the normal healing of wounds and contributes to normal fertility and reproduction.</p>	<p>Meat, poultry, cheese, some shellfish (e.g. crab, cockles and mussels), nuts and seeds (e.g. pumpkin seeds and pine nuts), wholegrain breakfast cereals and wholegrain and seeded breads.</p>	<p>10 mg</p>

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