

# Minerals Brief

Minerals play a crucial role in our metabolic processes. They are central in helping the body produce energy, growth, and in the reproduction and health of our cells.

A deficiency of certain minerals may result in all kinds of health problems such as anaemia (iron), osteoporosis (calcium), and weak immune system (zinc)

Minerals are naturally found in small quantities in foods; however no single food contains all the minerals we need for health.

Choosing a wide variety of foods from the four food groups will ensure we obtain all the energy, protein, vitamins and minerals we need for good health.

Mineral intake even in a healthy diet may vary due to the fact that some minerals in both plants and animal produce is dependent upon the soil in which the plants are grown or on which the animals graze.

What about supplements?

Most people should be able to get all the nutrients they need by eating a varied and balanced diet. Be careful taking minerals in isolation as it can interfere with the absorption of other minerals. If you choose to take supplements, especially for a long time it is best to discuss this with a suitable health professional e.g. a dietitian.



**TOP  
CHOMPS**  
Eat 5-a-day everyday

[www.topchomps.co.uk](http://www.topchomps.co.uk)

# Mineral Information 1

Magnesium

**Role**  
Aids in the release of energy from foods, helps maintain bone health and helps your muscles relax.

Phosphorus

Helps build strong bones and teeth and helps release the energy from the food we eat.

Potassium

Potassium helps regulate fluids and mineral balances in and out of body cells. It also helps maintain normal blood pressure, transmit nerve impulses, and contract muscles

Selenium

Selenium plays an important role in our immune system's function, in thyroid hormone metabolism and in reproduction. It also helps protect cells by acting as an antioxidant.

Sodium  
(found in salt)

Sodium helps regulate movement of fluids in and out of body cells. It also helps transmit nerve impulses, regulate blood pressure and relax muscles. High sodium levels can cause high blood pressure.

Zinc

Essential for growth, promoting cell reproduction, tissue growth and repair and wound healing, Zinc also aids the immune system.

# TOP CHOMPS

**Source**

Richest sources are green leafy vegetables e.g. spinach, and nuts. Good sources include bread, fish, meat and dairy foods.

Red meat, dairy foods, fish, poultry, bread and oats

Fruit (especially bananas), vegetables, pulses, nuts and seeds, milk, fish, shellfish, beef, chicken, turkey, liver, and bread

Good food sources include brazil nuts, bread, fish, meat and eggs.

Processed food accounts for about 75% of sodium we eat, another 25% comes from table salt. Minimum requirements are easily met by everyday food choices.

Meat, shellfish, milk and dairy foods, bread and cereal products.

# Mineral Information 2

# TOP CHOMPS

Calcium

Calcium helps build strong bones and teeth and keeps them strong by slowing bone loss as you age. It also helps muscle contract including the heartbeat and helps blood clot normally.

Cobalt

Cobalt forms the structure of Vitamin B12, therefore promoting growth and a healthy nervous system.

Copper

Copper helps produce red and white blood cells and triggers the release of iron to form haemoglobin which carries oxygen around the blood.

Fluoride

Fluoride helps harden tooth enamel, protecting tooth from decay. It may also protect against osteoporosis by strengthening bones.

Iron

Important for the production of haemoglobin, the part of red blood cells that carries oxygen around your body, and a lack of iron can cause fatigue.

Role

Source

Richest sources are milk, cheese and other dairy foods and fish where you eat the bones e.g. sardines, salmon. Also found in smaller quantities in green leafy vegetables, soybean products, nuts, figs

Fish, nuts, green leafy vegetables and cereals such as oats.

Nuts, shellfish and offal e.g. liver.

The only significant source is tea and fish with edible bones (salmon). Many communities add fluoride to the water supply. Also found in toothpaste.

Richest sources are red meat but also obtained from beans, nuts, dried apricots, whole grains, fortified breakfast cereals, soybean flour, and most green leafy vegetables.

