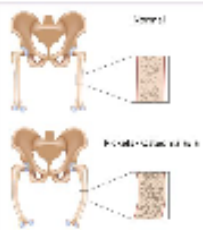






Mineral	Functions	Sources	Deficiency and excess
Calcium	<p>Strong bones and teeth; makes nerves and muscles work; helps blood clot after injury.</p> 	<p>Milk, cheese, yogurt, green leafy veg., canned fish with soft bones that are eaten e.g. salmon.</p> <p>Enriched soya drinks, wheat flour (added by law to plain white flour)</p>	<p>Rickets: caused by insufficient vitamin D in children meaning calcium cannot be absorbed and put into the bones.</p> <p>Osteomalacia: adult form of rickets</p> <p>Peak bone mass: may not be reached.</p> <p>Osteoporosis: after peak bone mass is reached, bones naturally lose minerals and weaken. Minerals are not replaced and may become fragile and easily break.</p> <p>Excess: Too much salt leads to high blood pressure and cardiovascular disease.</p>
Iron	<p>Makes haemoglobin in red blood cells to carry oxygen to produce energy in body cells.</p> 	<p>Red meat, kidneys, liver, wholemeal bread added by law to wheat flour (except wholemeal), green leafy veg. e.g. watercress, spinach, cabbage), egg yolk, dried apricots, lentils, cocoa, plain chocolate, curry powder, fortified breakfast cereals.</p>	<p>Iron deficiency anaemia; tiredness, lack of energy, weakness, pale skin complexion, weak and spilt nails.</p> <p>Excess: Poisonous if too much taken e.g. in supplements.</p>
Sodium	<p>Controls water in body, nerves and muscles.</p>	<p>Salt (sodium chloride), salted foods, cheese, yeast extract, stock cubes, gravy, and seasonings, snack foods e.g. crisps, canned fish, bacon ham, dried fish, soy sauce, salted butter, fast foods, many ready meals and take away. Baking powder used in baked goods.</p>	<p>Muscle cramps.</p> <p>Excess: high blood pressure which can put a strain on the heart + kidneys which affects how efficiently they work</p> 
Fluoride	<p>Strengthens tooth enamel and bones.</p>	<p>Seafood, fish, tea and some water supplies.</p>	<p>Weak enamel – more chance of tooth decay.</p> <p>Excess: May lead to discoloured teeth.</p>
Iodine	<p>Produces thyroxin in thyroid gland to control metabolic rate of body.</p>	<p>Seafood, vegetables and dairy foods.</p>	<p>Swelling in neck (goitre).</p>
Phosphorus	<p>With calcium for strong bones and teeth; energy release; makes cell membranes especially in the brain.</p>	<p>Wide range of foods.</p> 	<p>This is rare.</p> 

Key words:

Peak bone mass: the age at which the bones should contain the maximum amount of minerals and are at their strongest and most dense (30—35 years old)

Amounts needed for different life stages:

Teenage girls and women: need iron and vitamin C to replace iron lost in menstruation.

Boys and girls still growing: need calcium and vitamin D to enable bone growth and bone density to occur

Salt intake:

People should eat no more than 6g of salt each day. There is a concern about the amount consumed because:

- Too much sodium causes a rise in blood pressure which can lead to hypertension.
- Hypertension can lead to a risk of CVD, blood clots and strokes.
- Salt is added to many foods, e.g. cheese and salt fish, to preserve.
- Added as a flavouring in foods such as fried snacks, crisps, chips, ready meals.
- Sodium also found in baking powder (sodium bicarbonate) and monosodium glutamate, which is used as a flavour enhancer in many processed and fast foods.
- Because it is in so many different foods, it is easy to eat more salt (sodium) than people realise.