
Salt

Summary

- Sodium is needed by the body to help regulate fluid levels, but there is generally more than enough dietary sodium in a natural diet without any added salt.
 - The average Australian eats almost double the sodium (salt) that is required for good health.
 - A diet high in sodium has been linked to high blood pressure.
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Salt is a chemical compound (electrolyte) made up of sodium and chloride. It is commonly used to preserve and flavour foods, and is the main source of sodium in our diet.

A small amount of salt is important for good health as it helps to maintain the correct volume of circulating blood and tissue fluids in the body. However, most people consume much more sodium than they need for good health.

The kidneys are the main regulators of sodium levels in the body. Too much sodium can cause high blood pressure and many other health conditions. On the other hand, if sodium levels drop too low, the hormone aldosterone is released and this increases the amount of sodium held in the body by reducing the amount lost in urine.

Excessive sodium loss is very rare, but low sodium levels in the body can be dangerous if not treated.

Australians eat too much salt

The average Australian consumes almost double the amount of sodium they need for good health. The National Health and Medical Research Council (NHMRC) advises that **Australian adults should aim to consume no more than one teaspoon (5 grams) of salt a day (or 2,000 mg of sodium a day) in order to prevent chronic disease.**

Aiming for less than this is perfectly okay too. An adult body only needs around 1 – 2 g of salt (460 – 920mg sodium) per day to function.

Salt intake above 2,000 mg per day is associated with high blood pressure, which is a risk factor for kidney disease and cardiovascular disease (such as heart disease and stroke).

Australian **children are eating too much salt** too. In fact, almost three quarters of Victorian school children are eating more than the recommended amount. This can lead to lifelong unhealthy eating habits, and have a negative effect on children's blood pressure. This can lead to heart attacks and strokes in the future.

Generally, **infants and children need less salt than adults.**

The **recommended daily salt intake for children** varies depending on their age, as follows:

- 1 – 3 years: 200 – 400 mg/day
- 4 – 8 years 300 – 600 mg/day
- 9 – 13 years: 400 – 800 mg/day
- 14 – 18 years 460 – 920 mg/day.

Around 75 per cent of the salt in our diet comes from processed foods. You can't see the added salt in processed foods, which means often you are unaware of the amount of salt you are having. Many food companies are working to try and reduce the sodium content of processed foods.

You can take steps to reduce your salt intake by:

- reading food labels
- choosing foods that have reduced or no added salt
- giving feedback about salty dishes
- asking for less salt when dining out.

Many healthy, everyday foods contain minimal salt, such as vegetables and fruit, most dairy and fresh meats.

High sodium intake and blood pressure

The relationship between sodium intake and blood pressure is well established. Populations with a high average salt intake have a higher average blood pressure and higher levels of hypertension (high blood pressure). Australians consume nearly double the amount of sodium that is recommended to reduce the risk of cardiovascular disease.

Reducing the amount of salt you have will lower high blood pressure – the extent depends on your age, current blood pressure and other factors such as the amount of exercise you do, body weight, stress and alcohol intake. People with high blood pressure, diabetes or chronic kidney disease and those who are older or overweight are particularly susceptible to the effect of too much sodium on blood pressure.

There is strong evidence that sodium reduction lowers blood pressure in people with normal blood pressure and good evidence that consuming a diet low in sodium reduces blood pressure in children.

High sodium intake and other health conditions

Excessive sodium intake has also been linked to other conditions, such as:

- heart failure
- kidney problems and kidney stones
- oedema (fluid retention)
- stroke
- stomach cancer
- left ventricular hypertrophy (thickening of heart muscle)
- osteoporosis.

A high level of salt intake increases the amount of calcium excreted in the urine, which may also contribute to osteoporosis and increased risk of fracture.

The balance of sodium and water in the body can also be disrupted if there is not enough water. This may be caused by a damaged thirst mechanism or by limited access to water. Hyponatremia is a very serious condition that occurs when your sodium levels rise above 145 milliequivalents per litre (mEq/L). It can lead to death. A major symptom is thirst and treatment usually involves controlled water replacement.

Salt loss (hyponatremia)

The body loses salt through urine, perspiration, vomiting and diarrhoea. If too much salt is lost, the level of fluid in the blood will drop. Hyponatremia is a condition that occurs when the sodium in your blood falls below the normal range of 135–145 mEq/L. In severe cases, low sodium levels in the body can lead to muscle cramps, nausea, vomiting and dizziness. Eventually, lack of salt can lead to shock, coma and death.

Severe salt loss is very unlikely to happen because our diets contain more than enough salt. The only time this is likely to occur is when someone has acute gastroenteritis (causing vomiting and diarrhoea), severe sweating or water intoxication (from drinking too much water).

Muscle cramps need water not salt

Some people believe that salt has to be replaced during hot weather or strenuous exercise to avoid muscle cramps. This is not correct. What you need to replace is water.

The human body can happily survive on just one gram of salt a day, as hormones keep a check on sodium levels

and make adjustments for hot weather. A genuine sodium shortage brought on by hot weather or exercise is extremely rare, even among hard-working athletes.

The muscle cramps that sometimes follow a bout of sweating are due to dehydration, not lack of salt. To prevent cramps, drink plenty of water on hot days and before, during and after exercise. This will also help to even out the water–sodium ratio in the body.

Sodium and potassium in the body

Potassium is important for the nerves, muscles and heart to work properly. It also helps to lower blood pressure. However, some people with kidney disease, or who are taking some medications, need to be careful not to get too much potassium in their diet.

Our bodies are designed for a high-potassium diet, not a high-salt diet. Food processing tends to lower the potassium levels in many foods while increasing the sodium content. It is much better to eat unprocessed foods such as fruit, vegetables and lean meats, eggs, fish and other healthy, everyday foods.

When selecting processed everyday foods such as wholegrain breads and cereals, select lower salt options. Foods high in potassium include bananas, apricots, mushrooms and spinach.

Sodium in food

Many foods – wholegrains, meat and dairy products – naturally contain small amounts of sodium, while highly processed foods tend to contain large amounts.

Some foods contain more than you may expect. For example:

- A jam sandwich has only 30 per cent less salt than a vegemite sandwich, because most of the salt comes from the bread.
- Sea salt, onion, celery or garlic salts are not low-sodium substitutes.
- A bowl of cornflakes has about the same amount of salt as a small packet of plain chips.
- Some sweet biscuits contain as much or more salt than savoury biscuits.
- Ricotta, cottage, mozzarella and Swiss cheeses are lower in salt than most other cheeses.

Reducing salt in our diet

To reduce the amount of salt in your diet, slowly reduce your intake (over several weeks), then completely avoid adding salt at the table, and when cooking or preparing meals.

Consider:

- using dry or fresh herbs like parsley, oregano, thyme, dill, basil or a dry herb mix to add flavour
- using spices and other flavour enhancers like garlic and chili
- lemon or lime juices are excellent flavour enhancers and often make meats more tender.

Experiment with small amounts and use a recipe book to get ideas on what flavours go well together. For example, curry powder enhances the flavour of potatoes or eggs and vegetables go nicely with balsamic vinegar and olive oil.

If you currently use quite a lot of salt in cooking or at the table, reducing this is even more important. For the average person, this accounts for around 25 per cent of their total salt intake and is one easy action you can take to reduce your sodium intake. Your taste buds adapt to lower salt levels in a matter of weeks, so gradually reducing salt is a key factors to success.

While reducing the salt you add at the table in when cooking or preparing meals, you should also focus on selecting foods that contain less 'hidden' salt because this accounts for around 75 per cent of all salt in most people's diet. When shopping:

- Choose reduced salt bread and breakfast cereals – bread is a major source of sodium in the diet.
- Buy fresh vegetables or select lower sodium canned varieties.

- Choose products with low salt (less than 120 mg sodium/100 g) or 'salt-free' versions of commonly used foods such as baked beans, margarine, commercial sauces, pre-prepared meals and other foods.

Some people believe that sea salt is a healthier alternative to normal table salt, but both are composed of sodium chloride.

Avoid high-salt, processed foods

High-salt foods that should be eaten sparingly include:

- most 'fast' foods, such as pizza, hamburgers, chips
- most snack foods, such as potato chips
- processed meats, such as sausages, salami, hot dogs and luncheon meats
- dehydrated or packet foods, such as instant pasta or soups
- pre-packaged sauces and condiments, such as tomato sauce and soy sauce, and processed tomato products in general.

Iodine

Our bodies need iodine to make sure our thyroid gland and the hormones that regulate our metabolism work normally. Most bread in Australia and New Zealand is now required by law to use iodised salt in place of non-iodised salt, although bread labelled as 'organic' is exempt.

It is expected that this will make sure most Australian adults and children will consume sufficient iodine. This may not be the case for pregnant and breastfeeding women, who may need a dietary supplement. Low iodine status in the mother can affect the brain development of the child.

Another good way to make sure you get enough iodine is to eat seafood at least once a week. However, some types of fish contain high levels of mercury, which is dangerous to a developing fetus. Pregnant women must take care when choosing the types of fish they eat during pregnancy to reduce this risk.

Vegetarians or people who do not eat seafood can get iodine from multivitamin supplements.

Where to get help

- Your doctor
- **Dietitians Association of Australia** Tel. **1800 812 942**
- **Heart Foundation** Tel. **13 11 12**

This page has been produced in consultation with and approved by:

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