

# Hospitalised often for low sodium level

**Q** My mother, who is in her 70s, frequently experiences sudden high blood pressure and low sodium levels despite being on daily blood pressure medication. When this happens, she has headaches and vomits. She would need to be admitted to hospital for a few days and be put on a sodium chloride drip.

**It is useless to consult the general practitioner for medication as he would simply advise us to send her to the emergency department of a hospital.**

**What causes her to have low sodium levels? Is it linked to having high blood pressure?**

**What can she do?**

**A** Low sodium, also called hyponatraemia, is a medical condition when there is too little sodium in the body.

In cases where people have this condition, their bodies hold on to too much water. This dilutes the amount of sodium in their blood.

Many cells in the body rely on electrical signals to work right and sodium is one type of electrolyte that helps carry electrical signals between cells.

Symptoms of low sodium levels include nausea and vomiting, headache, confusion, feeling weak or tired, feeling restless, muscle weakness, having seizures or passing out.

Low sodium levels can also lead to brain

swelling and nerve damage.

Low sodium levels can happen in many ways.

Drinking too much water, having a poor diet, and long-lasting, severe vomiting or diarrhoea can all lead to low sodium levels.

Other common causes include certain medical conditions that cause your body to hold on to too much water, for example, heart failure, cirrhosis (a form of liver disease), kidney disease and lung disease.

A condition called syndrome of inappropriate anti-diuretic hormone secretion can lead to low sodium as well. This condition happens when the body makes too much anti-diuretic hormone, leading to excessive fluid retention in the body.

That, in turn, leads to low sodium levels.

There are numerous causes for this condition, including medication, infection, surgery, stroke or infection of the brain, and some forms of cancer.

A combination of low sodium level and hypertension can also be observed in a number of medical conditions, including having decreased blood flow to the kidneys, which is caused by the narrowing of the blood vessels supplying blood to the kidneys.

Low sodium levels can also result from taking certain types of medication such as diuretics, which belong to a class of medicine used for hypertension. Being on diuretic medicine results in

low sodium levels by causing a selective loss of sodium in the urine.

Elderly women who are hypertensive and on thiazides, a class of diuretic medicine, are more prone to the risk of low sodium levels induced by this group of drugs.

Having low levels of sodium does not have any direct effect on blood pressure.

The treatment depends on what is causing it.

If it is related to the use of certain types of medicine, then changing the medicine is an option.

As you have mentioned, pumping sodium chloride solution into the veins is one of the ways to treat low sodium levels. Alternatively, salt tablets can be given.

Low sodium levels with symptoms can lead to serious consequences and, therefore, hospitalisation and management are recommended.

However, finding the cause of your mother's hyponatraemia and treating it to prevent the recurrence of symptoms should be the goal when managing her condition.



**DR DEVINDER SINGH**, consultant at the cardiac department at the National University Heart Centre, Singapore