

**\*Sodium** and **\*potassium** are electrolytes. They play a very important part in controlling your blood pressure

1

The chemical name for **Salt** is Sodium Chloride.

When salt is dissolved in water it makes **sodium** ions.

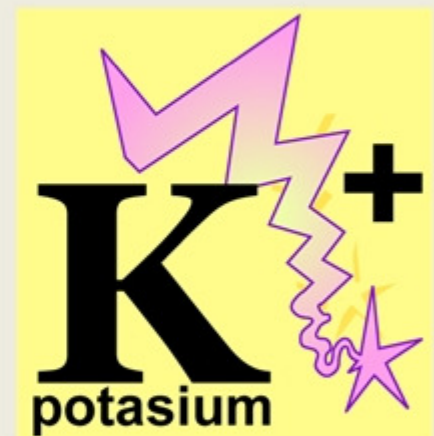
**Sodium ions** are electrically charged.



2

When potassium salts dissolve in water they make **potassium ions**.

You get potassium from the food like beans, green leafy vegetables squash, yogurt, fish, avocados, mushrooms, and bananas.



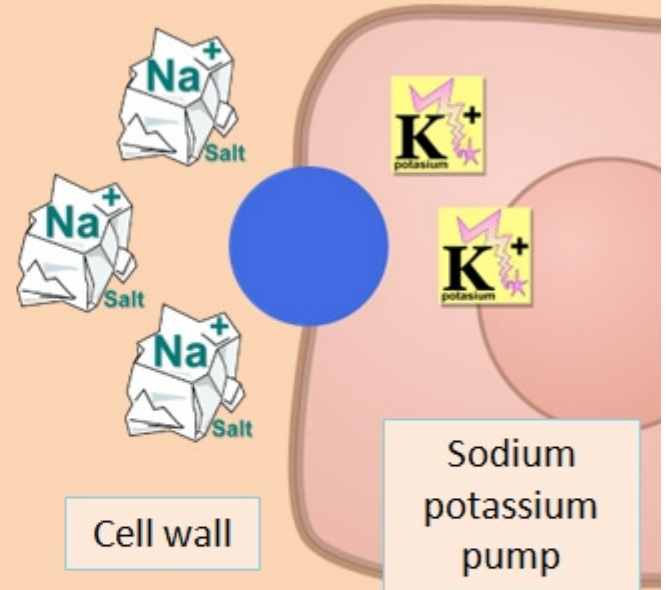
\* The chemical symbol for sodium is Na.  
The chemical symbol for potassium is K



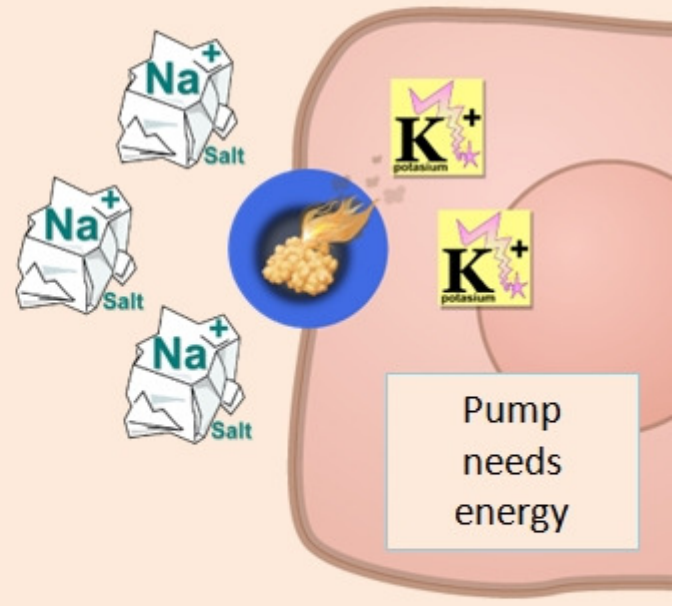
# Blood pressure Electrolytes – Sodium potassium pump

**1** Normally **Sodium** and **Potassium** ions can't go through a cell's wall.

But if they have a **sodium potassium pump** they can.

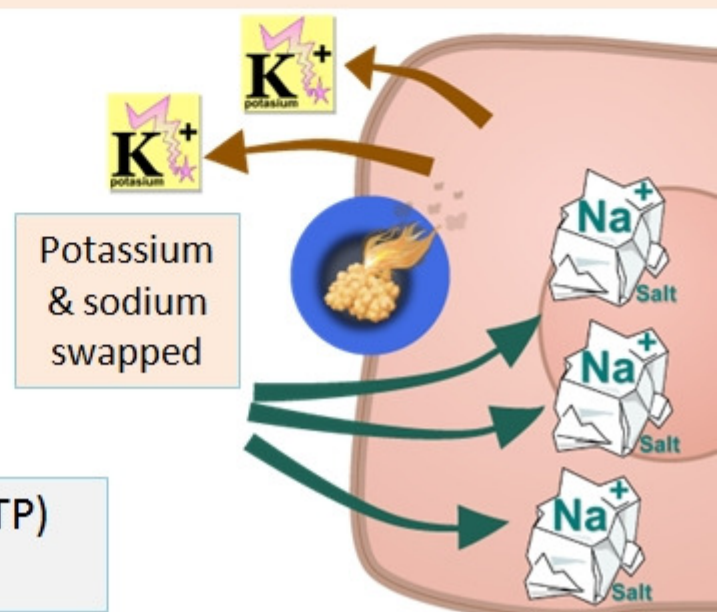


**2** The **pump** needs **\*energy** to work.



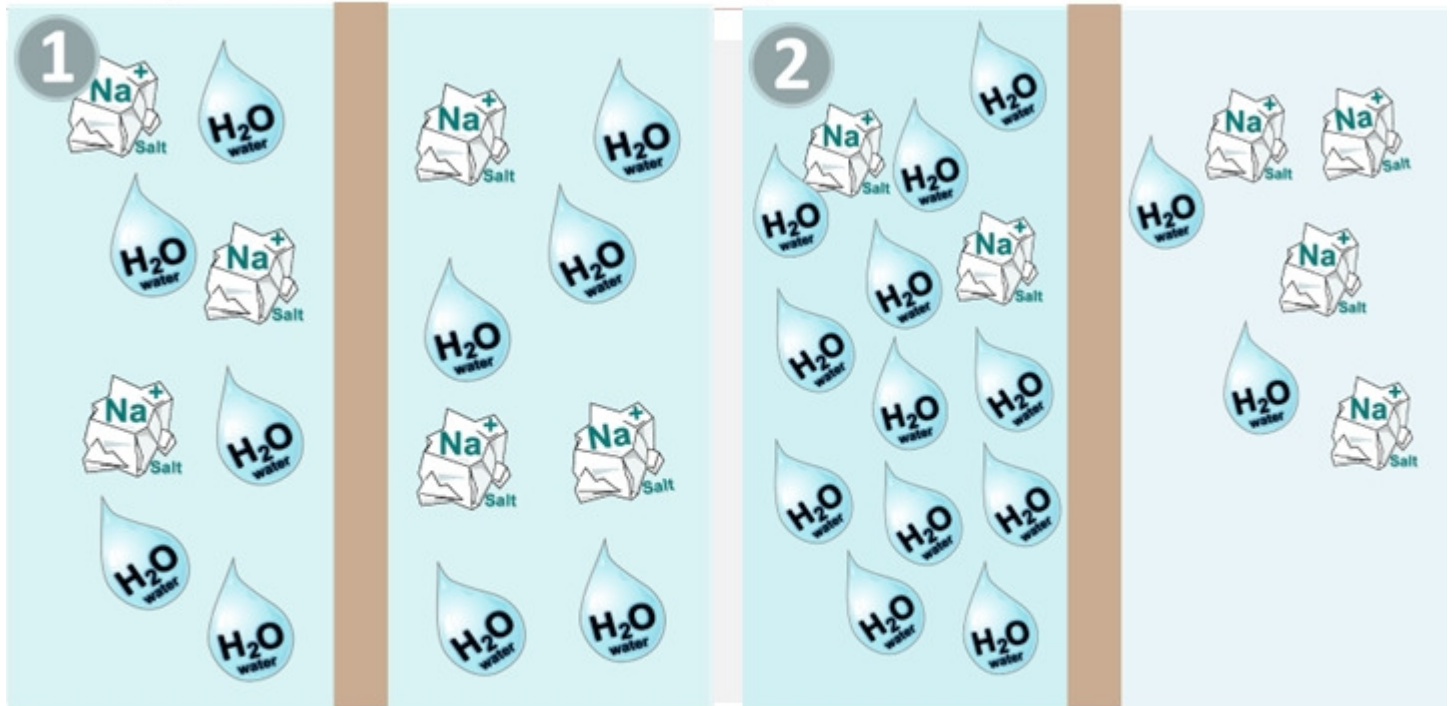
**3** When the sodium potassium pump is working **2 potassium** ions are always swapped for **3 sodium** ions.

\*Adenosine triphosphate (ATP) provides the energy



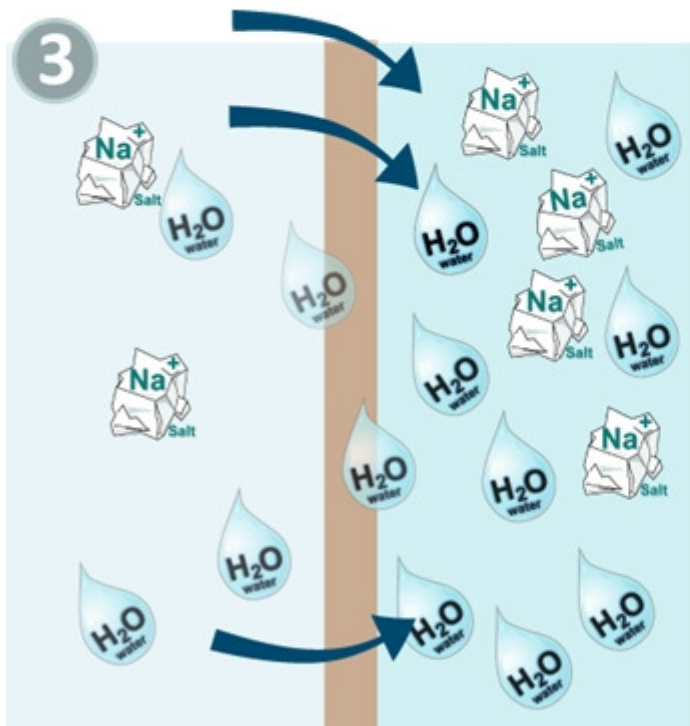


# Blood pressure Other electrolytes

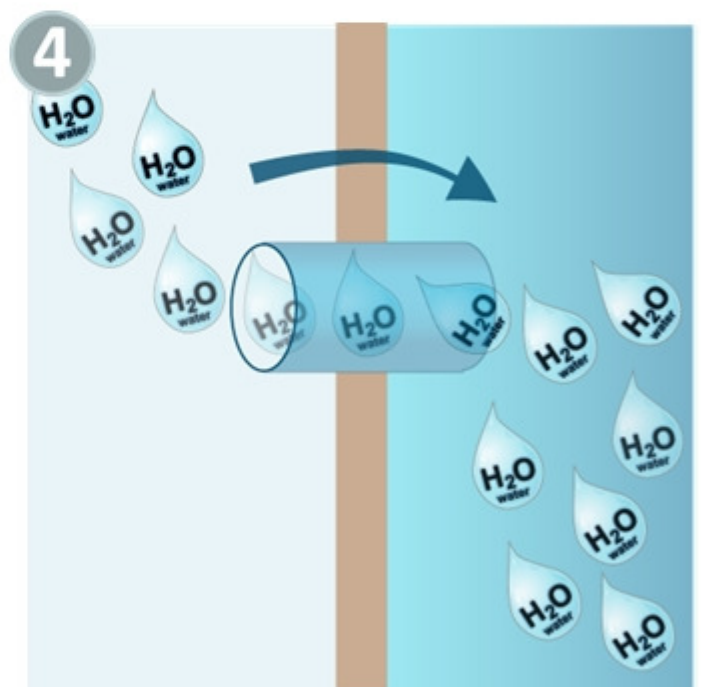


A cell wall likes to have the same concentration of an electrolyte on each side of a cell's wall.

If one side of a cell has more salt than the other...



...water moves across the wall to dilute the salt on the other side. This is called **Osmosis**



Sometimes cells put pipes in the cell wall so the water can just flow through. These are called **channels**

There is no need to print the following page when printing and using this resource

## Health Professional Facilitator Information

You must use your own professional judgement when using this resource

### Purpose of resource:

To explain the sugar story to people who need to know about diabetes. The story can be adapted for people with different kinds of diabetes.

There are a number of different sets of sugar story cards which deal with the two main stories about sugar and insulin together with other stories which are specific to the type of diabetes a client has.

### Key health competencies:

After using the resource a client should be able to tell you:

- How sugar gets into the blood and is used as a fuel.
- How the pancreas makes insulin keys which help the sugar get into cells

Different clients should be able to tell you either

- How fat can cause insulin resistance ,or
- How insulin needs to be replaced when the pancreas does not work, or
- How the pancreas may not make enough insulin

All clients should be able to tell you why they need to 'Eat right', 'Be active' and 'Take their medicine'.

### Target group:

This resource is designed to be used with an individual client.

It can be used by Australians of all ages who need to know about the sugar story.

### Notes:

When you tell the sugar story to your client you can draw and write on the yarn sheet (worksheet). Make sure you give the client the completed sheet when you have finished.

The circulation poster is an additional aid as the illustrations on the worksheet may be too small for some patients to see properly.

Other resources like story cards can be used to help tell the story and evaluate whether the client is competent in the health competencies.

Some clients will not be able to get all the required competencies straight away.

The resource can be printed A3 size and then laminated, or as an A4 printed yarn sheet.

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