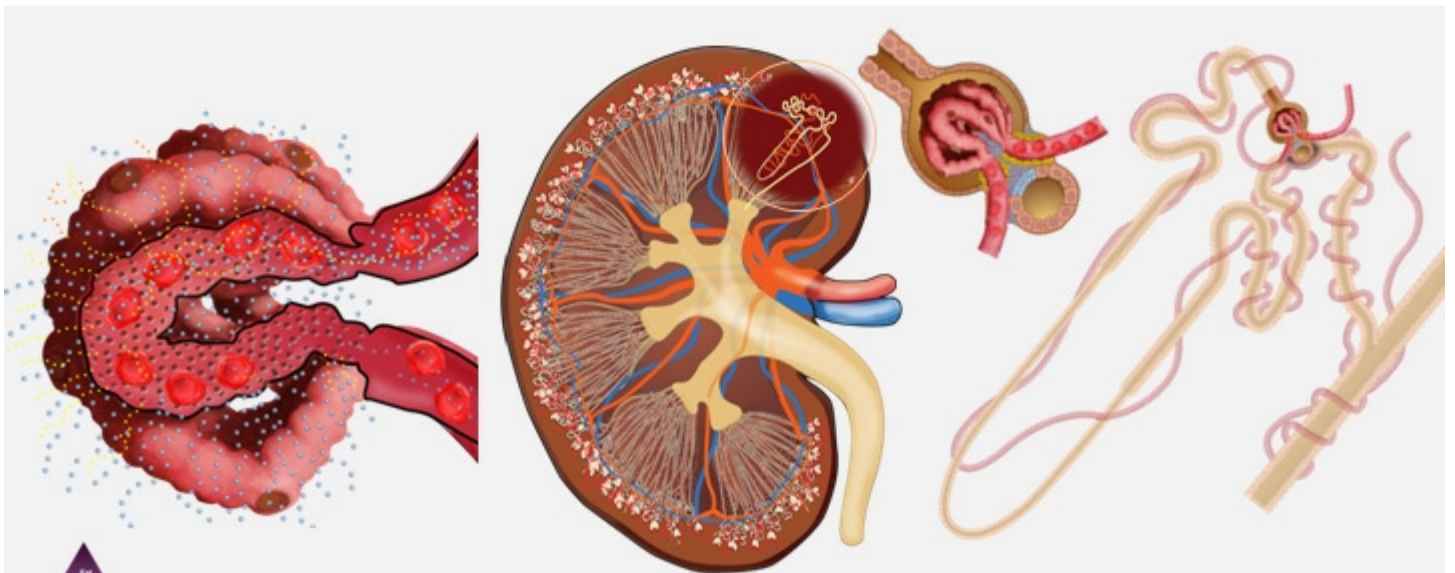
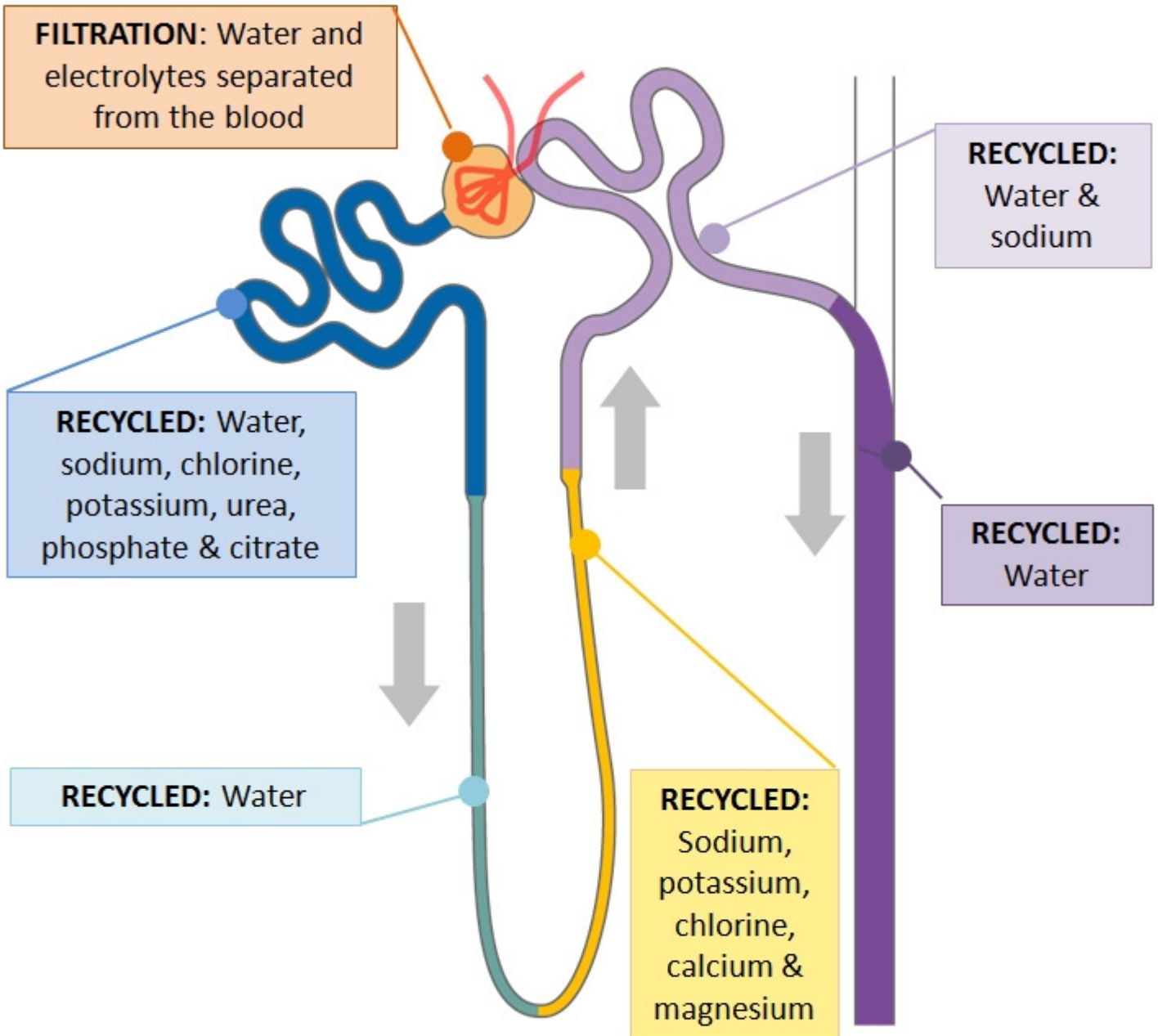
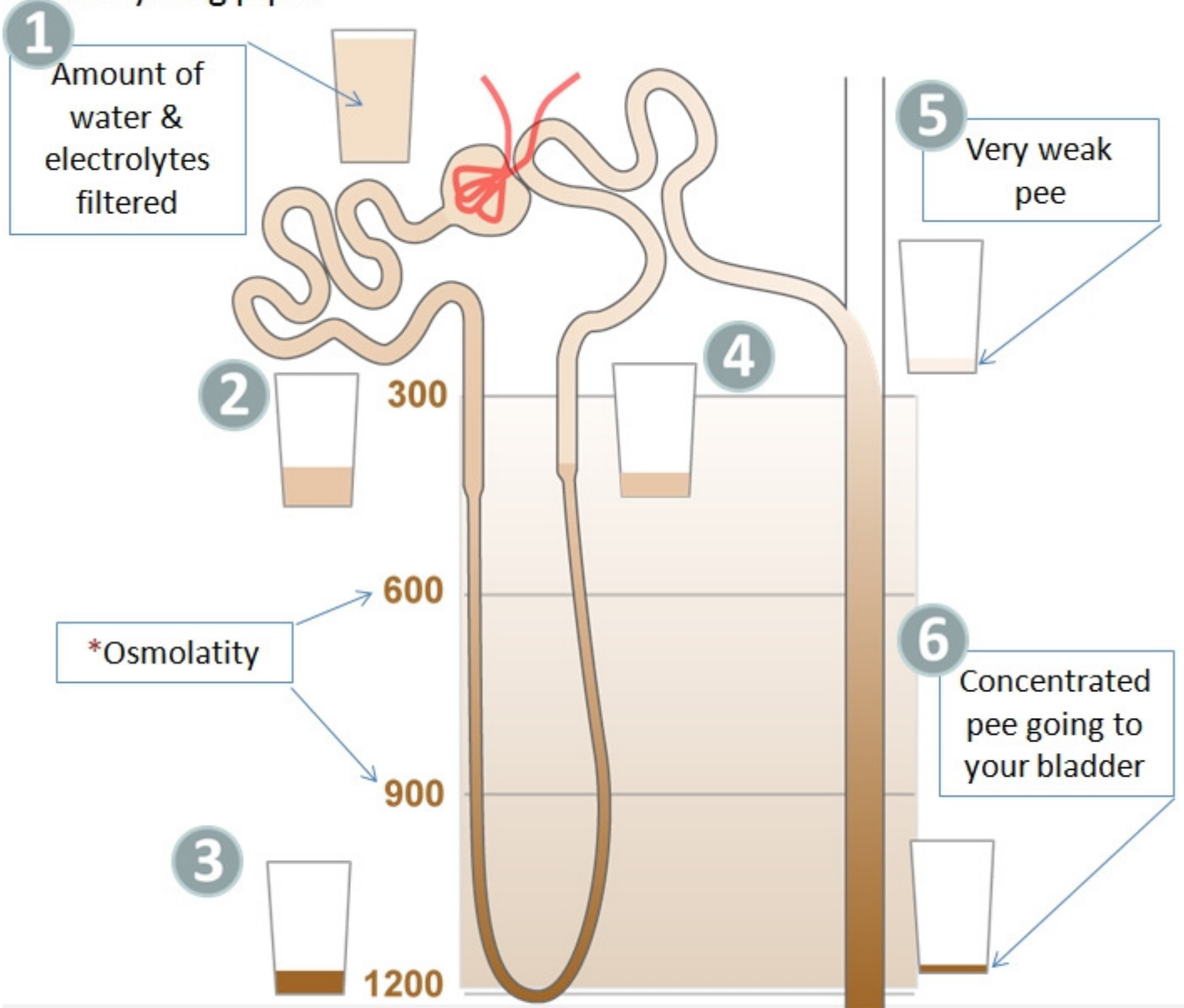


Your kidneys Recycled water & electrolytes



Your kidneys Recycled water & electrolytes

The water and electrolytes' concentration changes as it passes through the recycling pipes



Concentration:

STRONG

More electrolytes (particles)

Raspberry & apple cordial



WEAK

More water

***Osmolality** is a measure of the dissolved charged particles

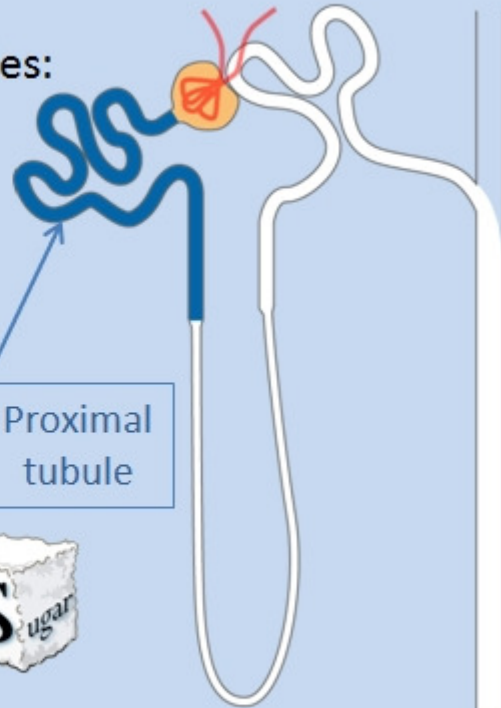
Your kidneys Proximal Tubule

1 The *first part of the nephron pipes recycles:

$\frac{2}{3}$ of the **water, sodium, chlorine, potassium, phosphate & citrate** are recycled

$\frac{1}{2}$ of the **urea** is recycled

All of the **sugar** is usually recycled

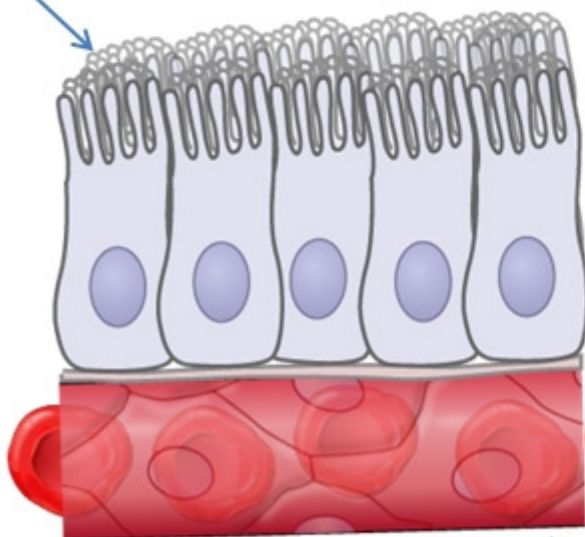


2 The recycling pipes in this part of the nephron have special **brush border cells.**

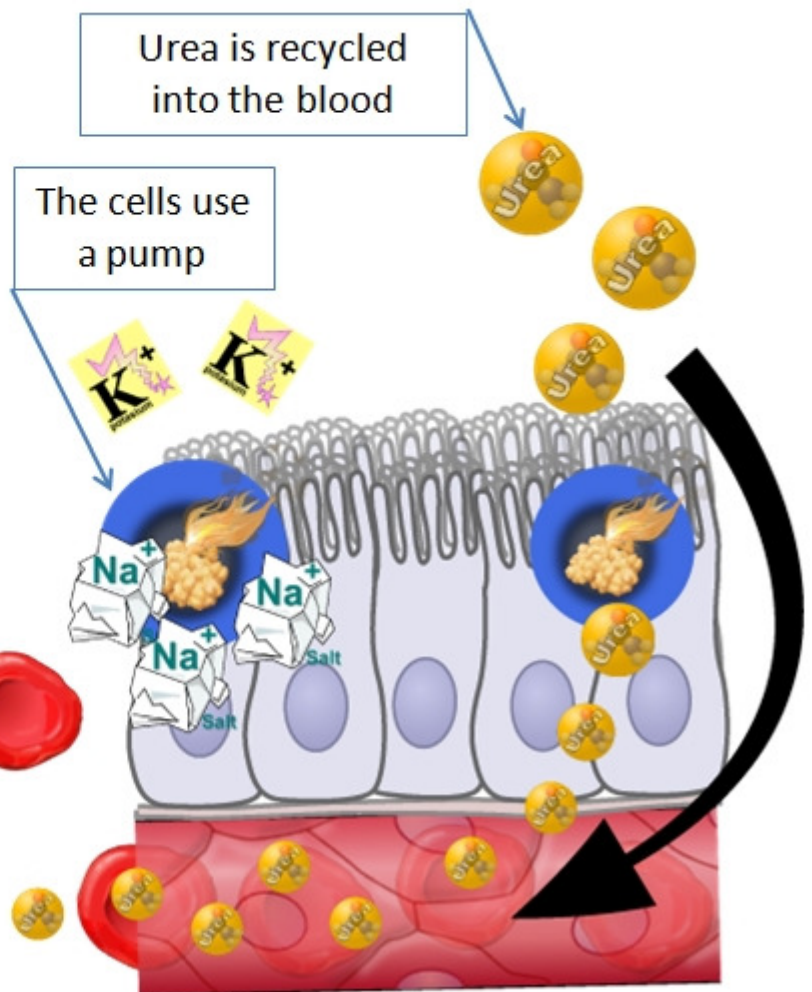
The cells look hairy. They make a bigger area which helps catch the water & urea

Urea is recycled into the blood

The cells use a pump

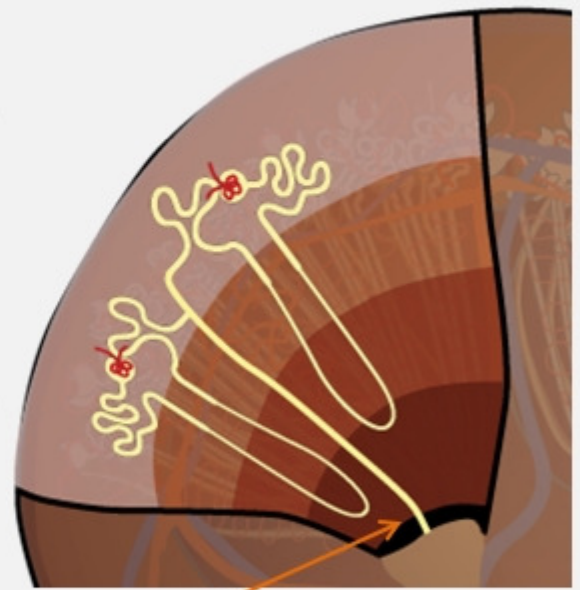
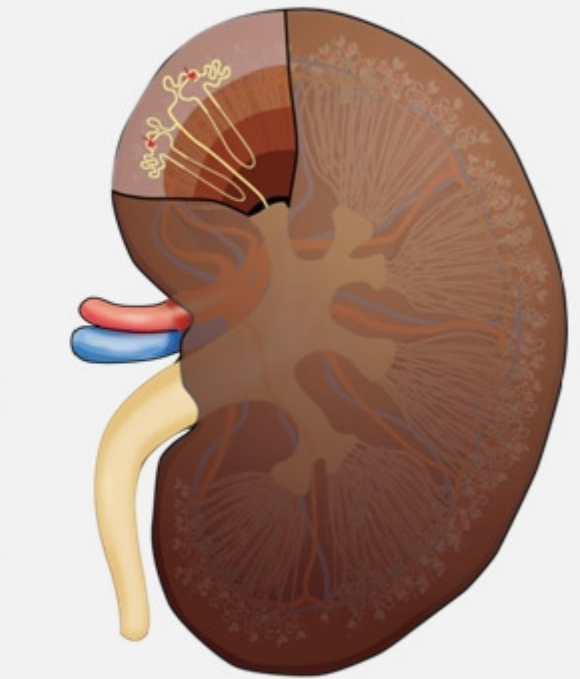
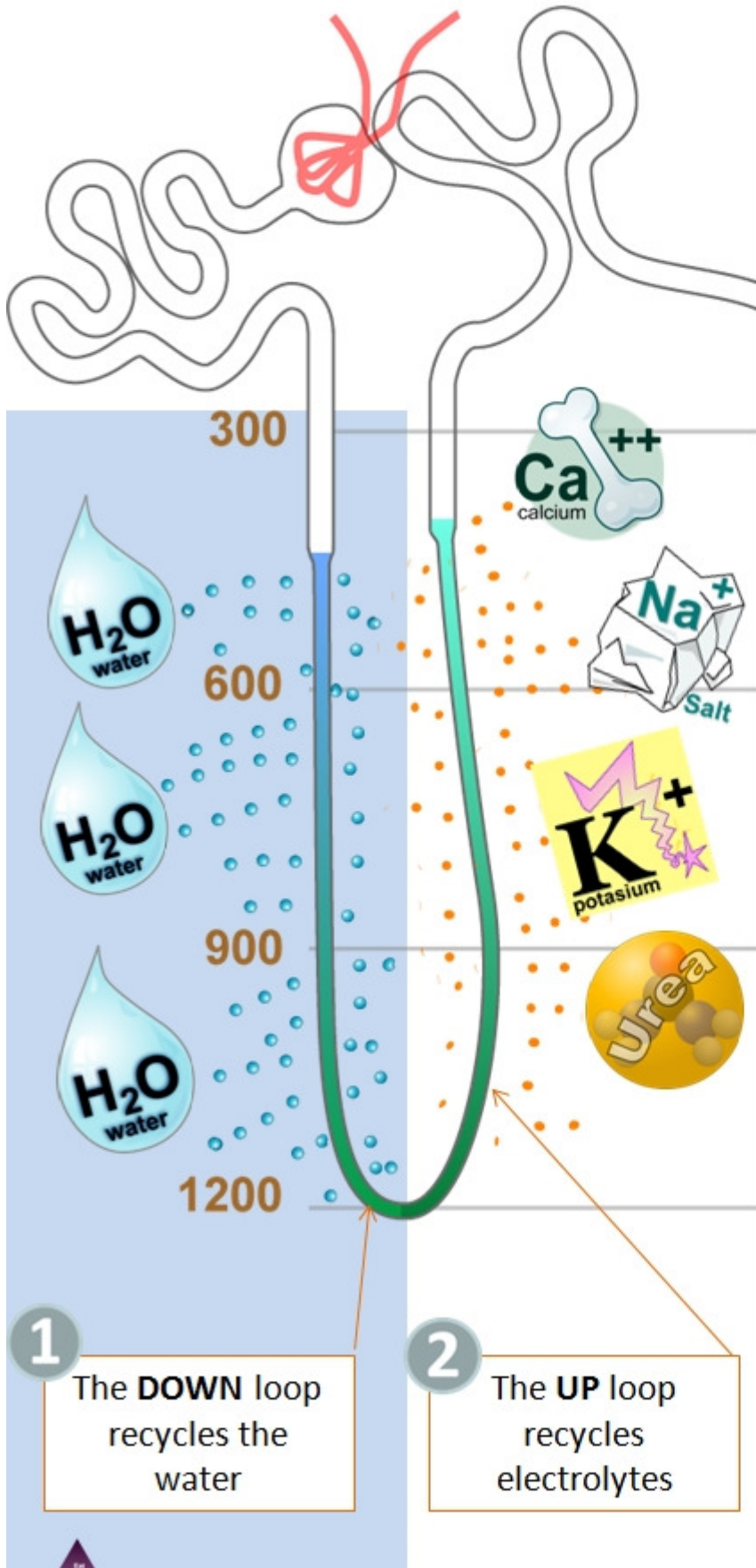


A tiny blood pipe runs next to the cells



* This part of the recycling pipe is called the Proximal tubule

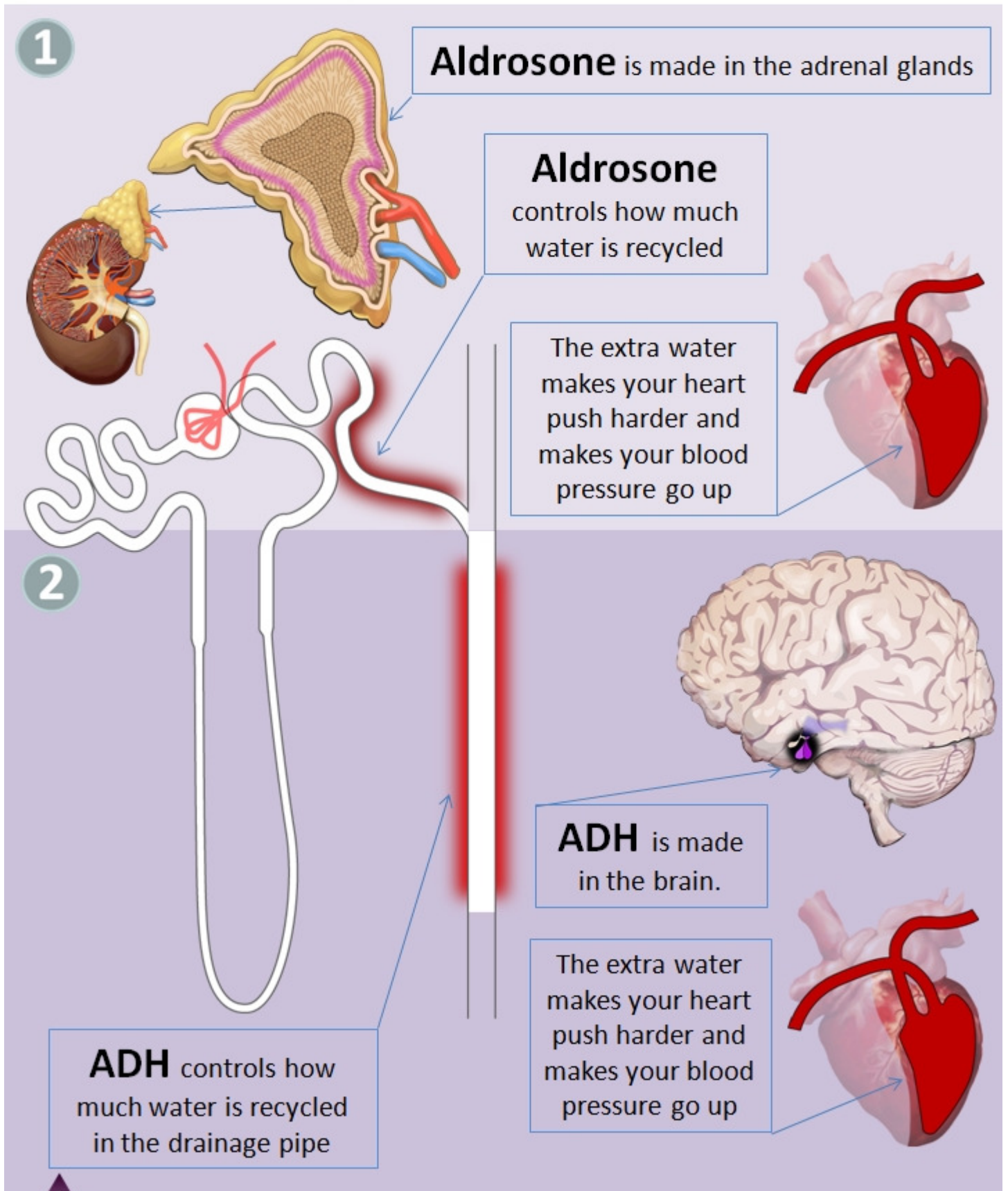
***The loop in the recycling pipe**



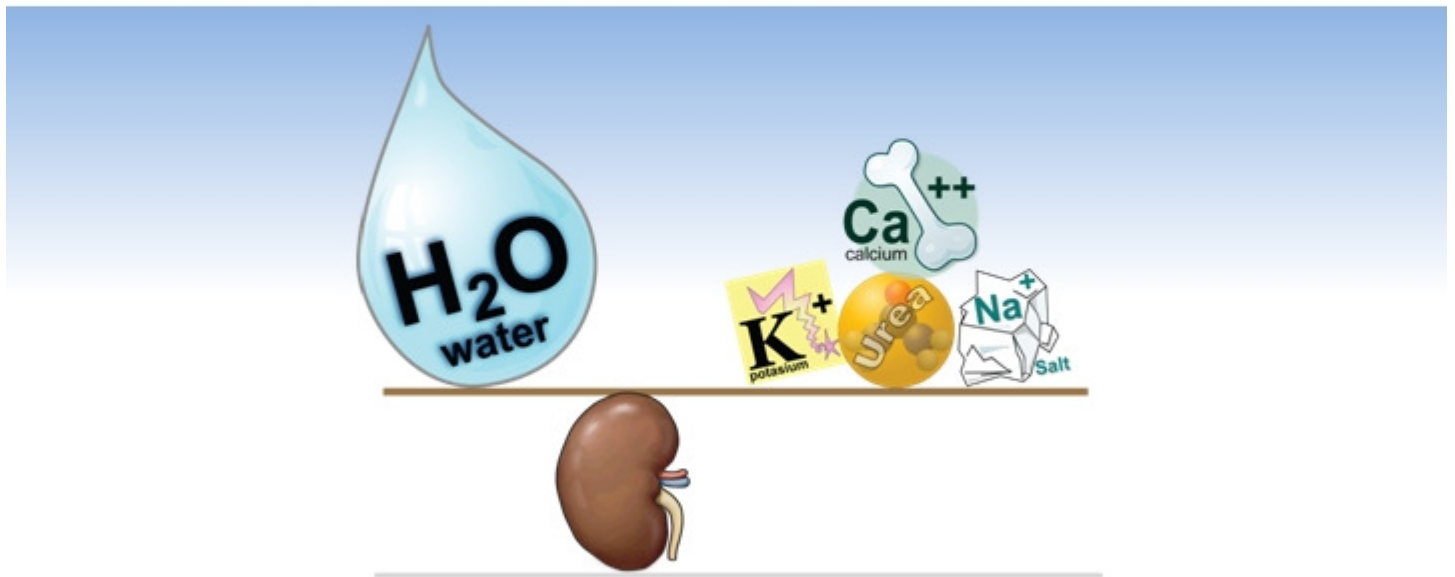
The loop in the recycling pipe goes down into a very salty part of the kidney which helps the recycling

*The loop is called the Loop of Henle

Adjusting your **blood volume** is done at the end of the recycling pipe and in the drainage pipe.



1 If you have **healthy kidneys** they will keep your electrolytes and water balanced for you.



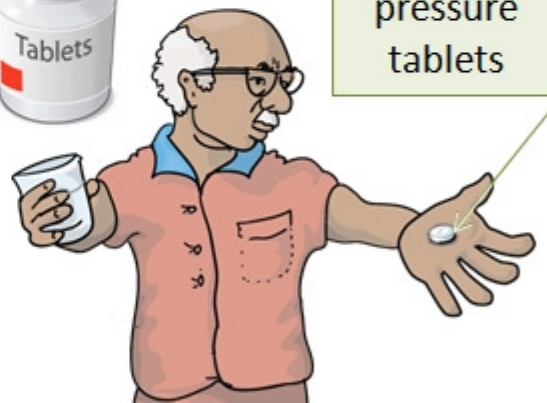
2 Look after your kidneys **remember to:**



Eat right – more vegetables



Take your blood pressure tablets



Drink water, **not** alcohol or sugary drinks



Be active



Control your blood sugar



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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