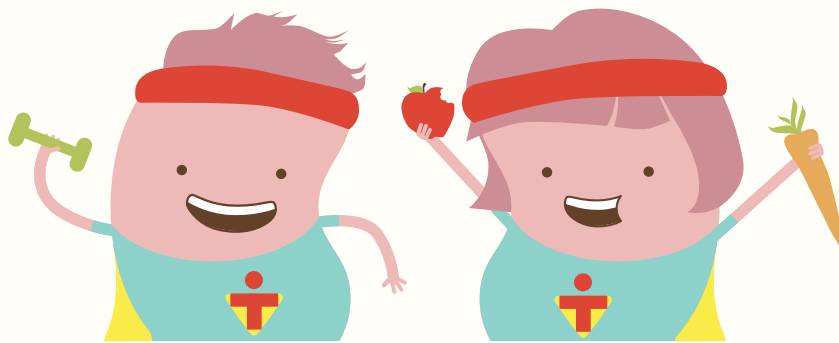


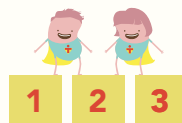
HEALTHY KIDNEYS CONNECTIONS



PRE-SCHOOL LEVEL



SCHOOL AGE LEVEL



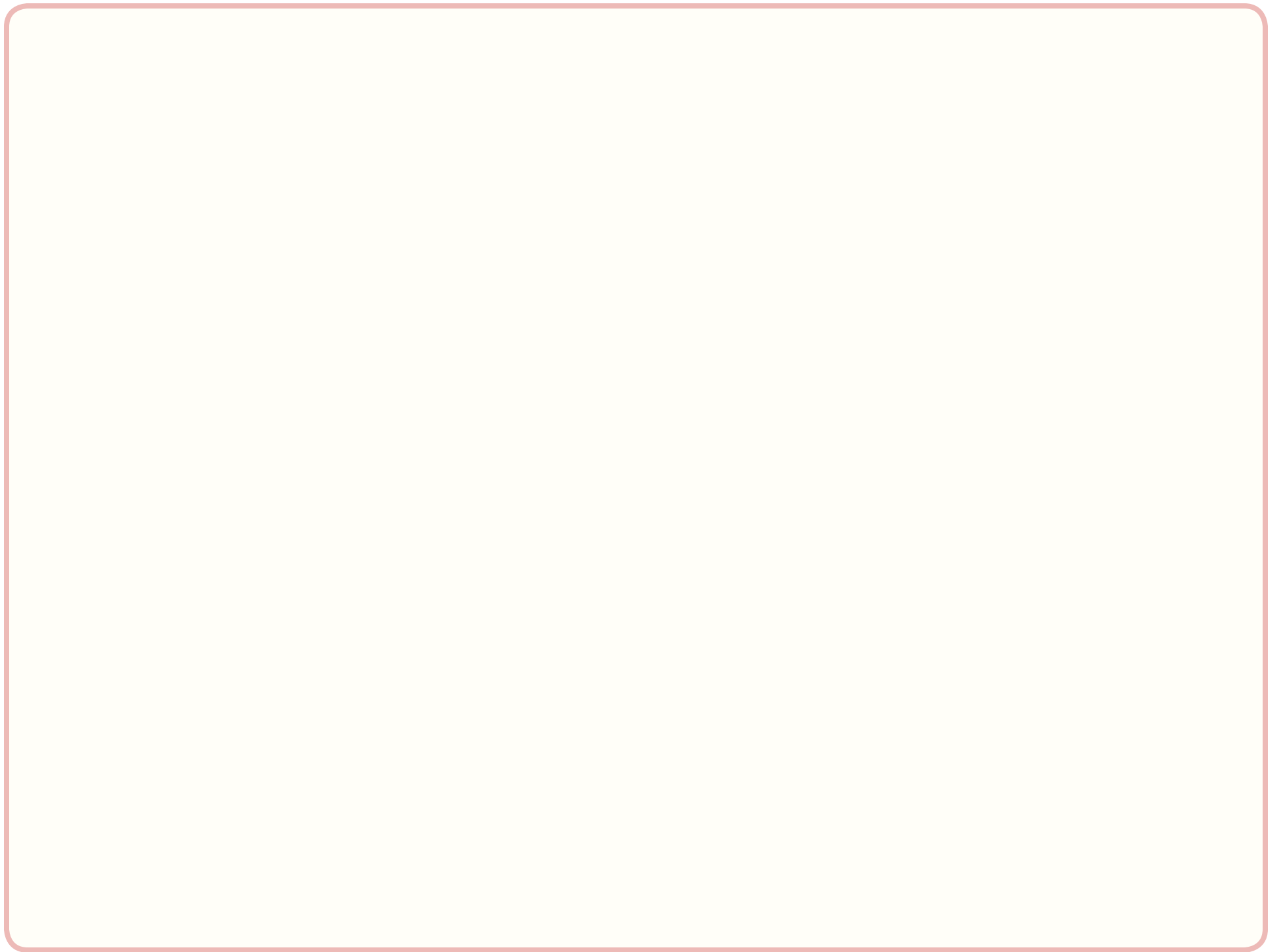
ADOLESCENT LEVEL



RESOURCES MENU

1. Your Kidney Health Team
2. Meet Your Kidneys!
3. Balance
- 4. CONNECTIONS**
5. Healthy Eating
6. Being Active
7. Taking Medicines
8. Healthy Blood
9. Bone Health
10. Blood Pressure
11. Acid Balance
12. Growth
13. Chronic Kidney Disease
14. Family Coping Resources
15. My Coping Resources
16. Glossary







HEALTHY KIDNEYS

The Kidney Health Learning Resource is to help children, parents, families, and caregivers living with kidney disease live well with the disease.

The Kidney Health Learning Resource is also for the health care team. The resource helps open the doors to conversations, learning and relationship-building with children, youth and families about kidney disease by presenting simple, age-appropriate design and medically and clinically accurate information and concepts.

The Kidney Health Learning Resource Advisory Group thanks parents and children who welcomed us into their private experience of living with chronic kidney disease. Children and families shared experiences and took time to let the consultant know what has been - and what would have been - helpful to know as they coped with chronic kidney disease in their families. To the children and families: thank you for sharing so that other families and health care providers can benefit from your wisdom. Your openness, enthusiasm and courage inspires us all.

We thank the members of Pediatric Nephrology, Children's Hospital, Health Sciences Centre Winnipeg who provided input, shared expertise and gave encouragement in the development of the learning resources. We also thank members of CANN-NET for their reviews of materials and their enthusiastic support.

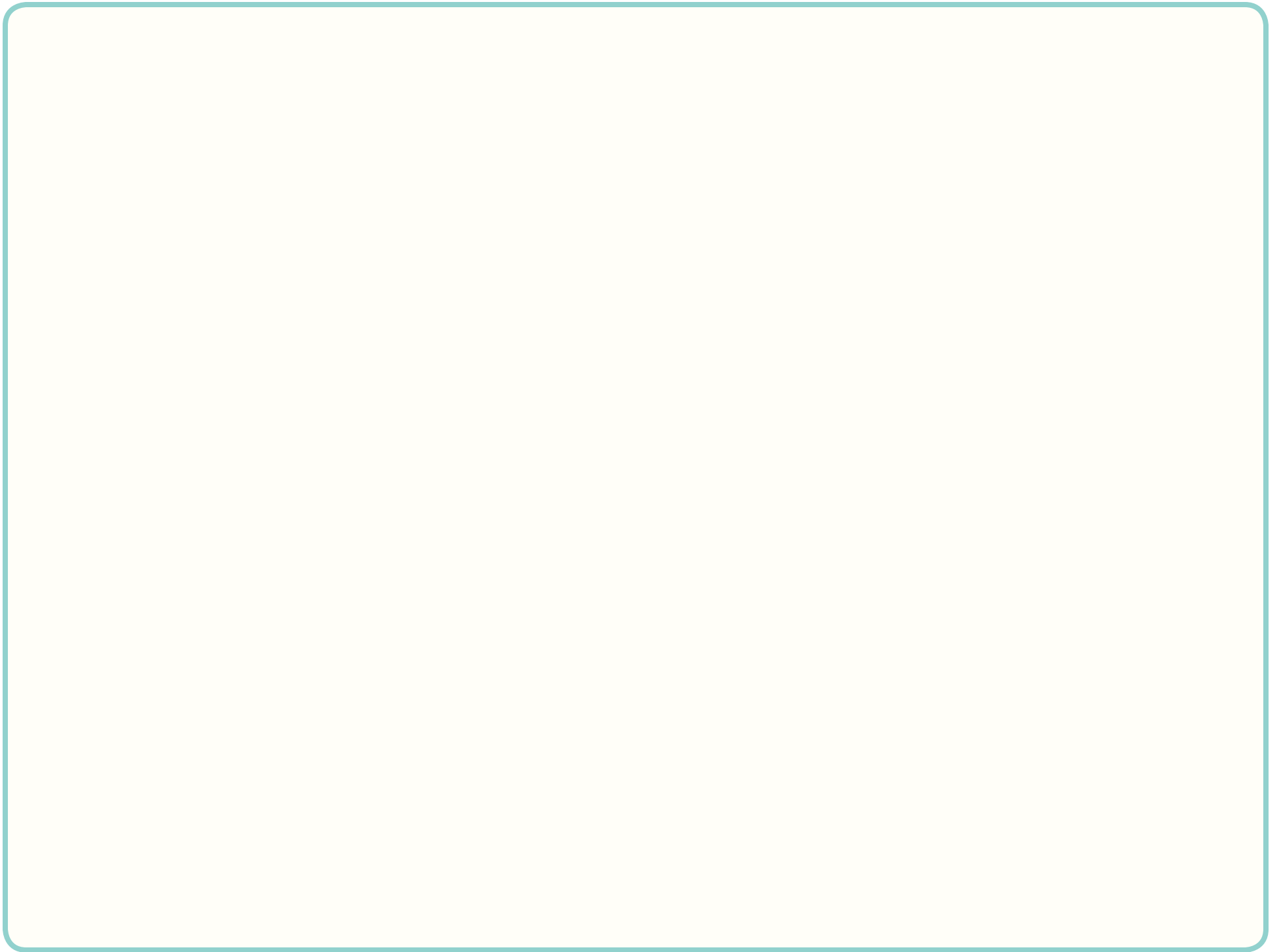
Finally, we thank the Children's Hospital Foundation of Manitoba for their financial support in the development of this resource.

Developmental levels within this resource:

PRE-SCHOOL LEVEL

SCHOOL AGE LEVEL

ADOLESCENT LEVEL



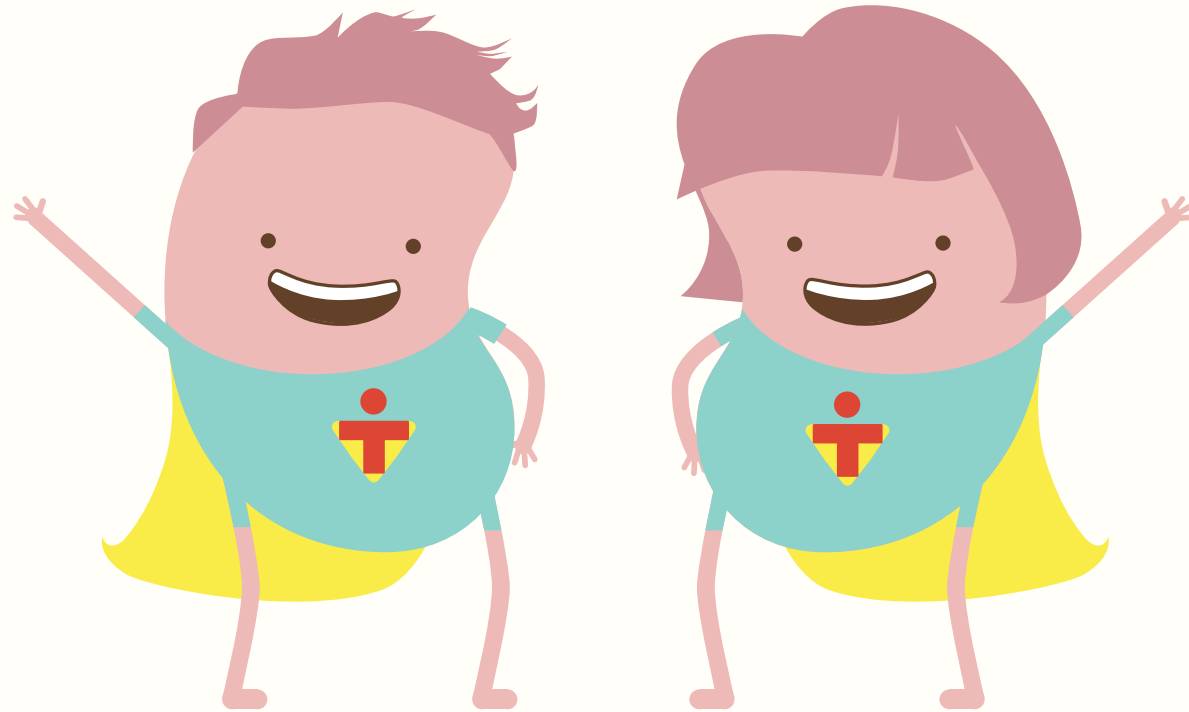
CONNECTIONS

PRE-SCHOOL LEVEL

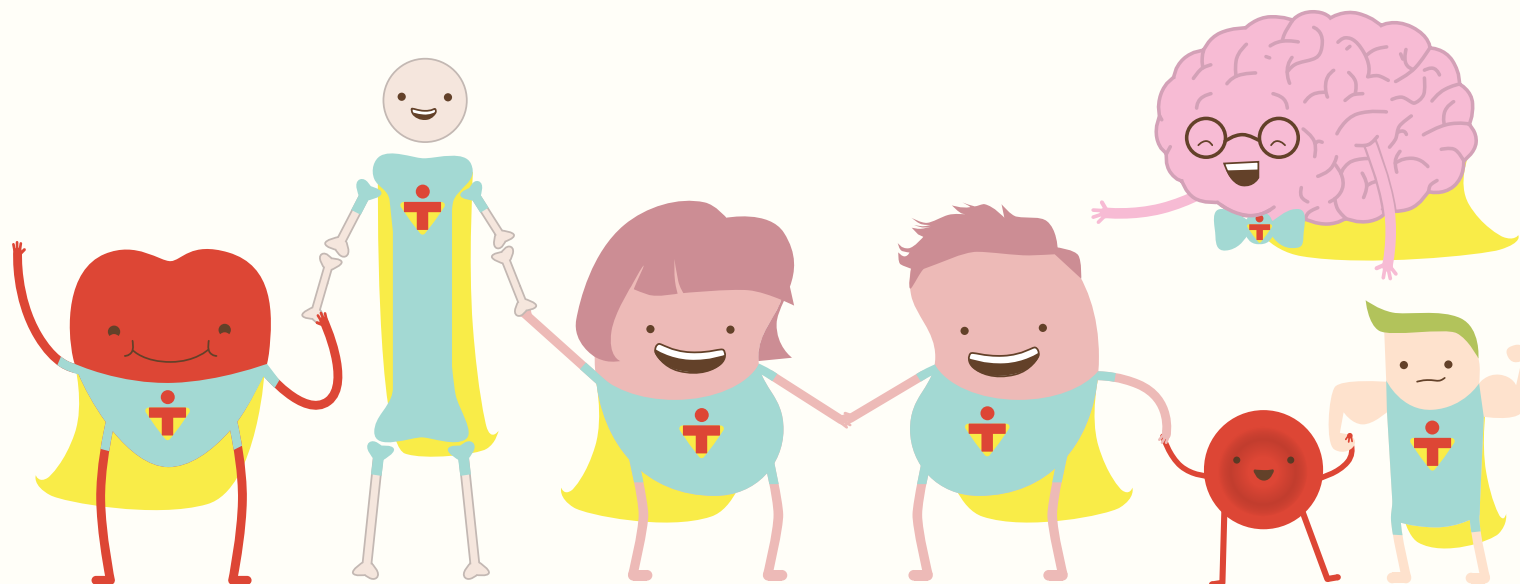


RESOURCES MENU

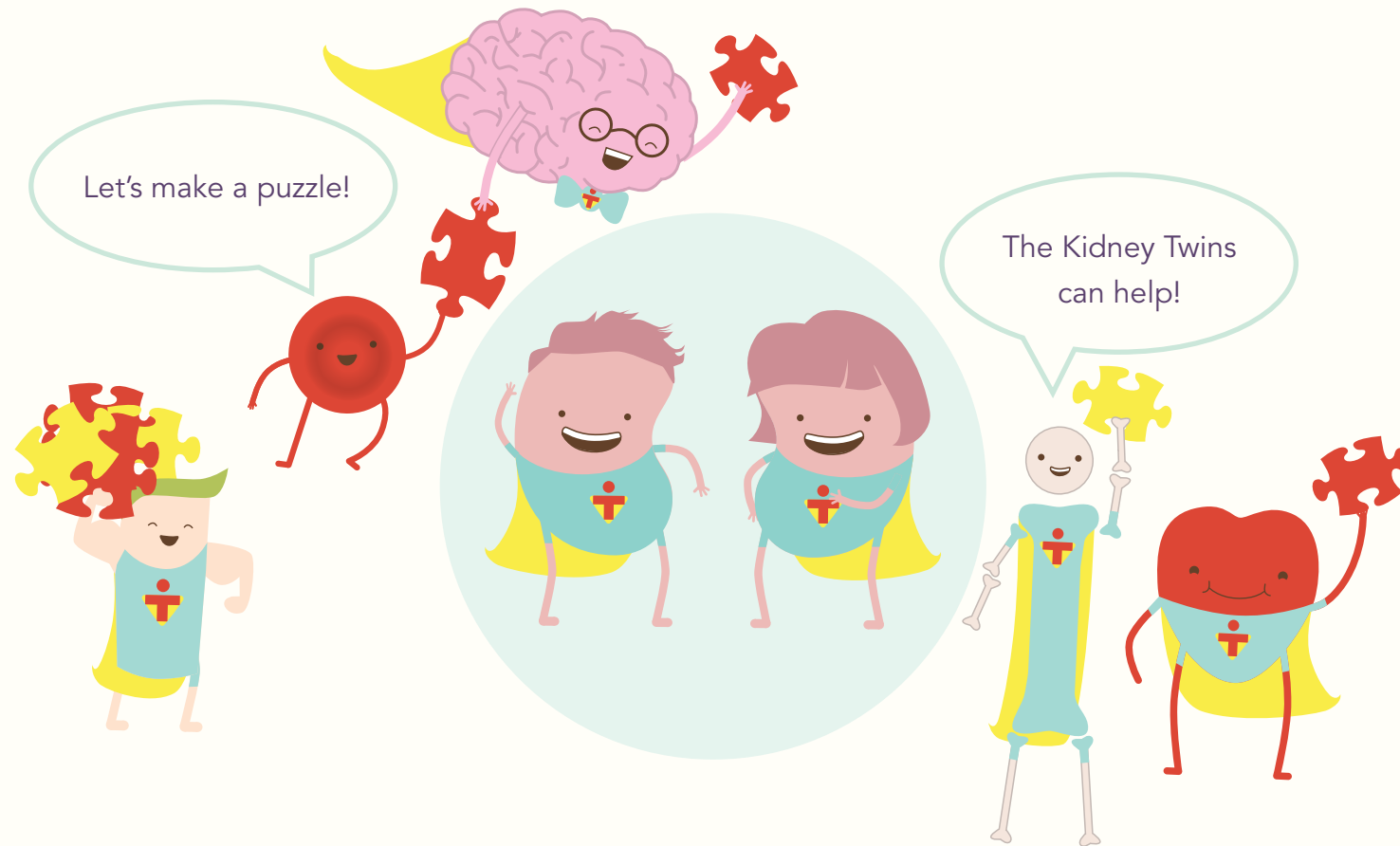
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It's the ***Kidney Twins!***



The Kidney Twins work together and talk to your **Blood, Bones, Brain, Heart** and **Muscle** to help you keep **strong** and **healthy**!

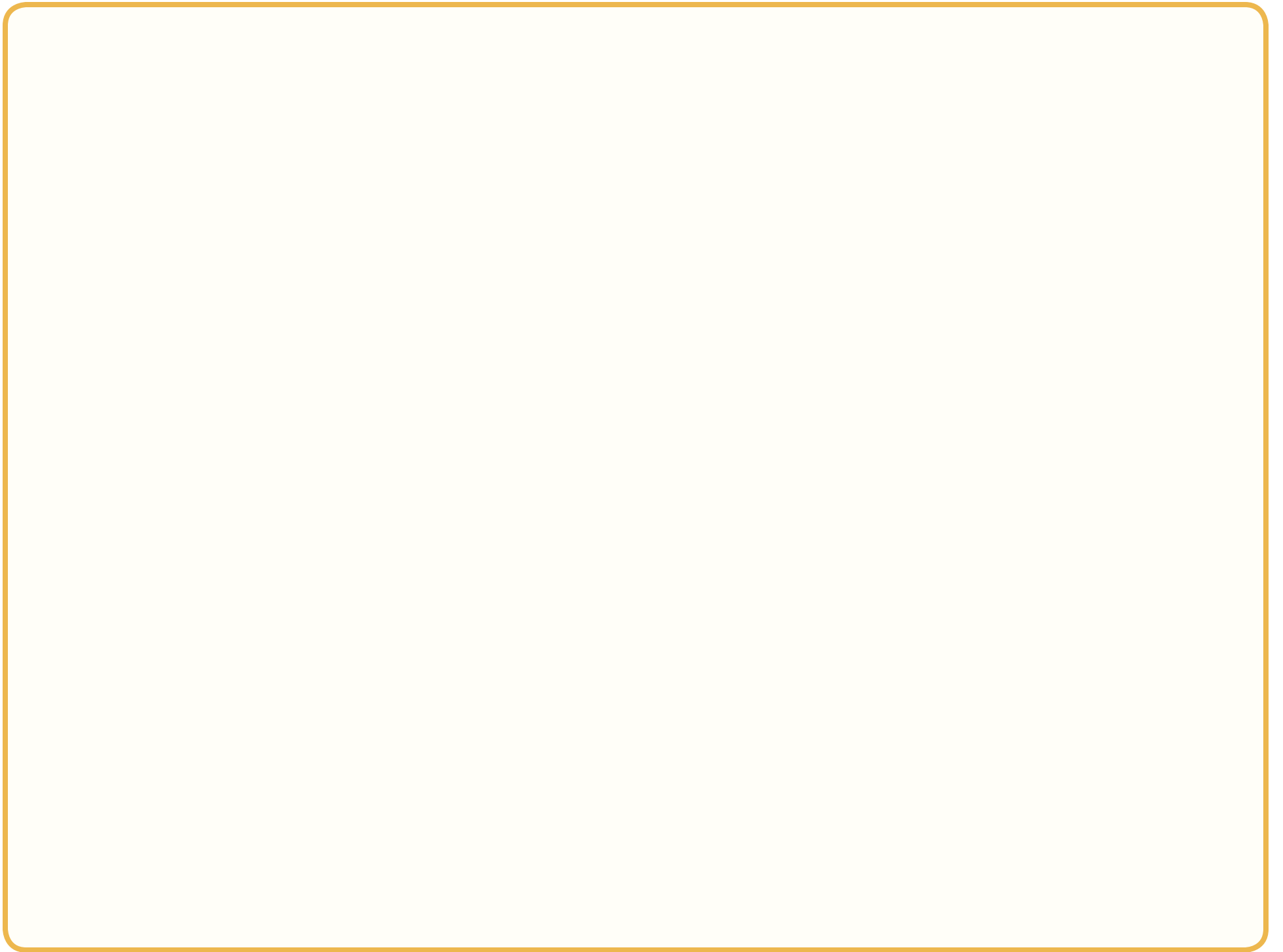


Your bones, your heart, your muscles, your brain and blood all have special jobs to do that keep your body strong and healthy. And they need the Kidney Twins to help them!

The Kidney Twins help them do their important jobs.

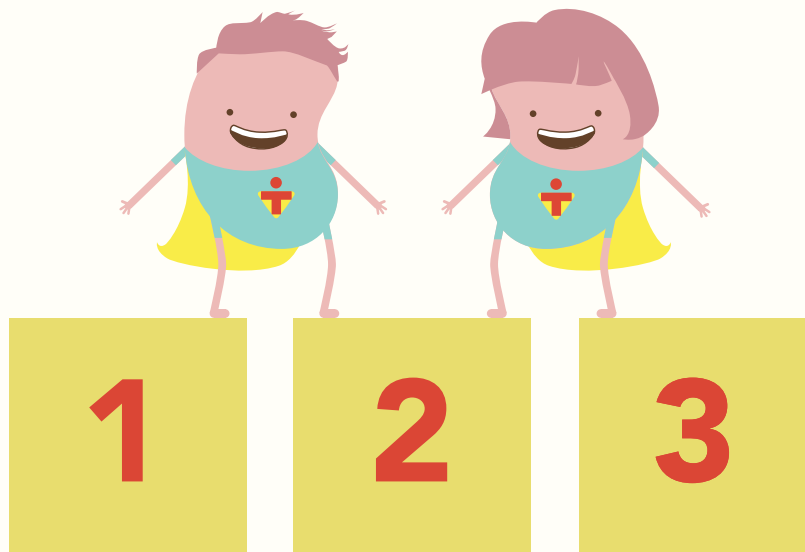


UP NEXT: SCHOOL AGE LEVEL



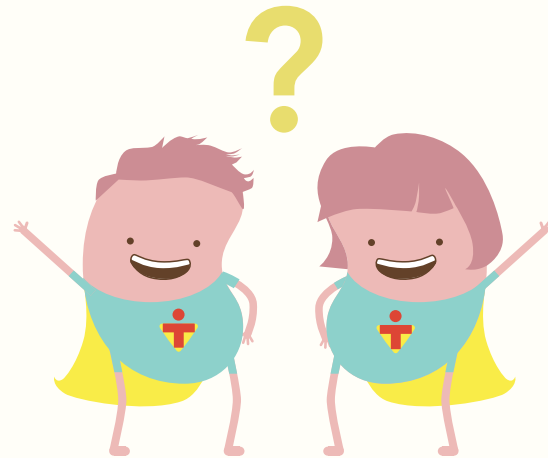
CONNECTIONS

SCHOOL AGE LEVEL

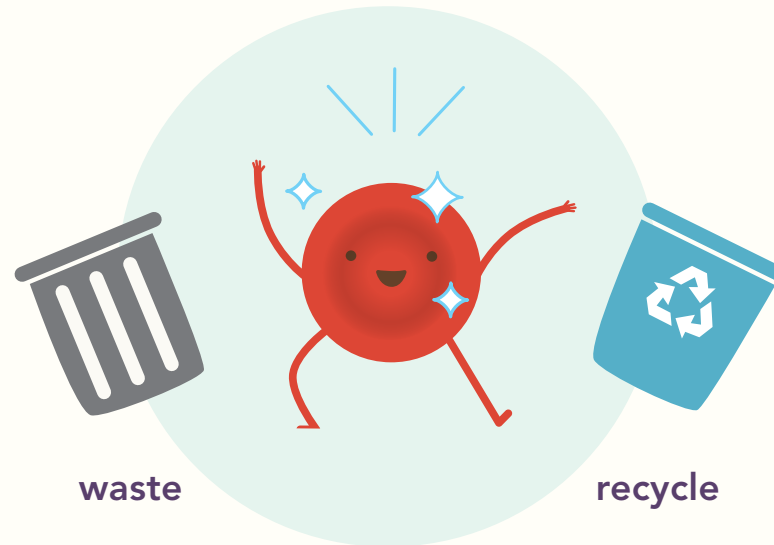


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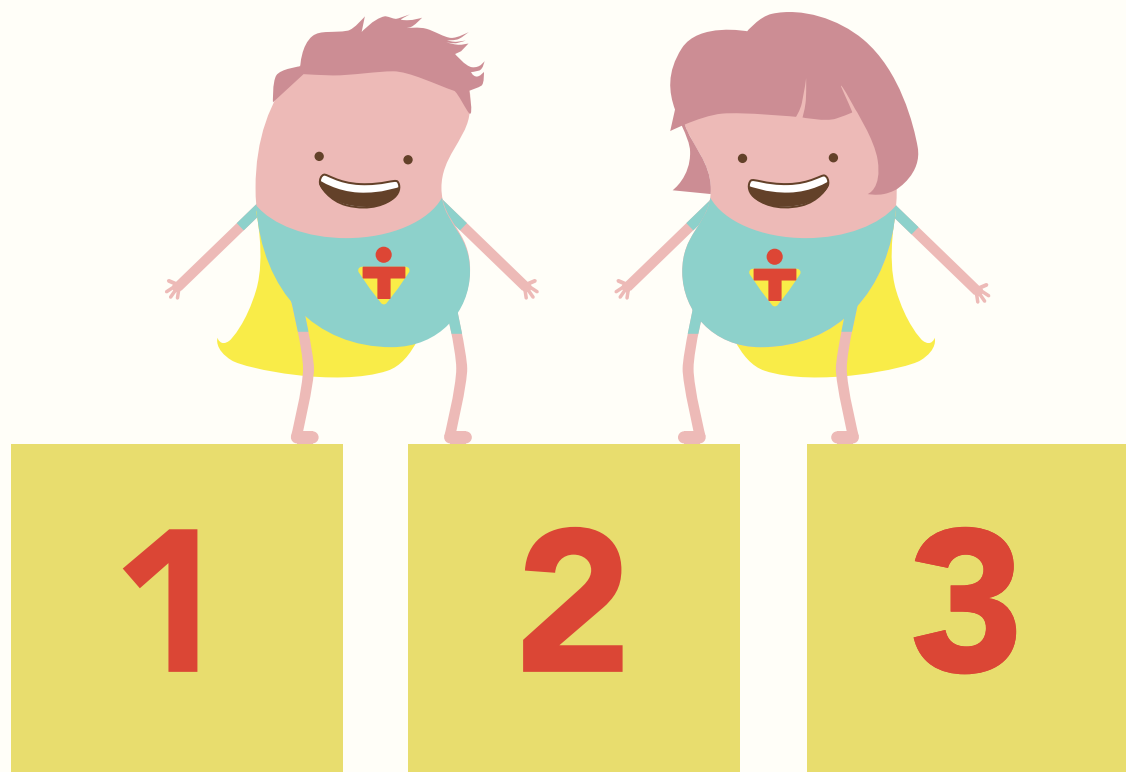


Do you remember the **Kidney Twins**? What do you remember about them?





The Kidney Twins know what your body can **reuse** and **recycle**. They know what the body does not need: that's the **waste**. The waste comes out your body in **urine** or **pee**.



After ***cleaning your blood*** and ***keeping balance***, the ***Kidney Twins*** do 3 other important jobs for your body.

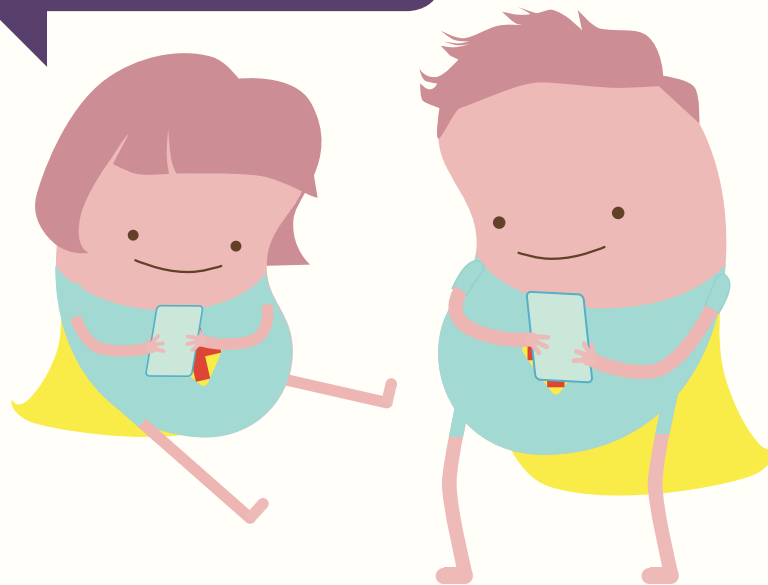
job

1

The Kidney Twins help make **more strong blood** to give you lots of energy.

KIDNEYS: NEW ESA MESSAGE

Hey @BONE, we need
#MOREBLOOD






job

2

The Kidney Twins help **Heart** stay healthy.



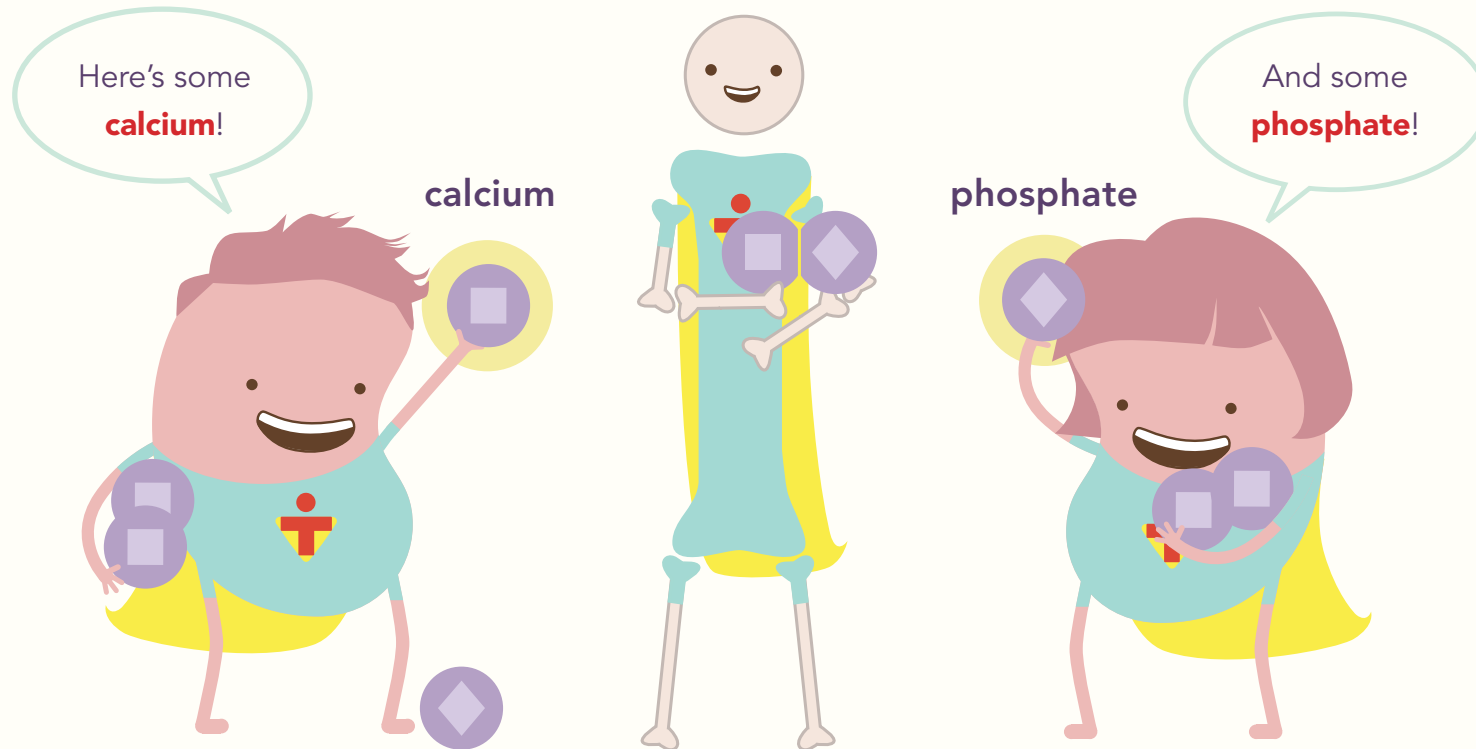
Here's some more **water**!

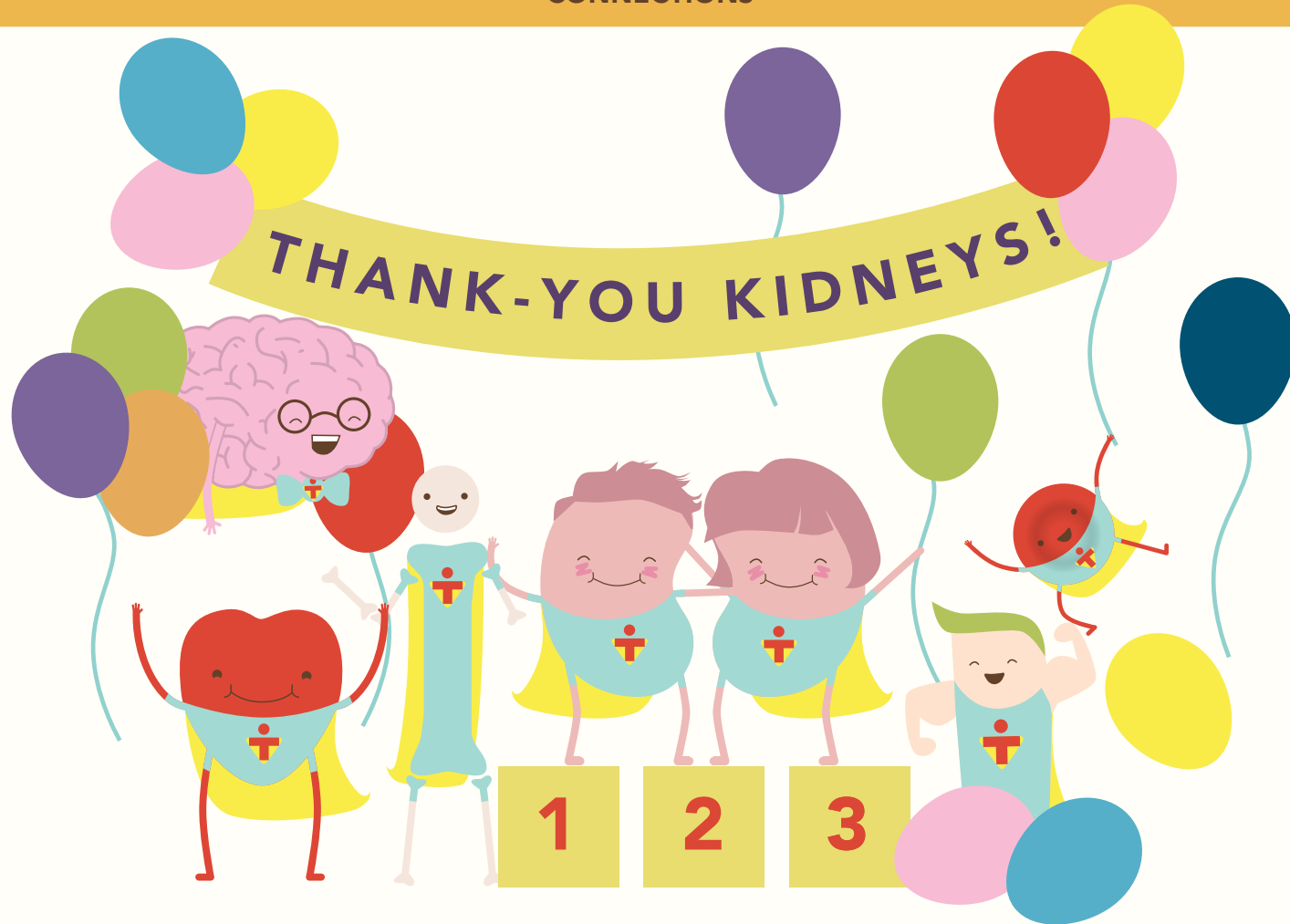


We already have enough **salt**!

job**3**

The Kidney Twins pass the right **Building Blocks** to **Bone**.
The right number of the right Building Blocks keeps your bones strong and healthy so you can grow and play!



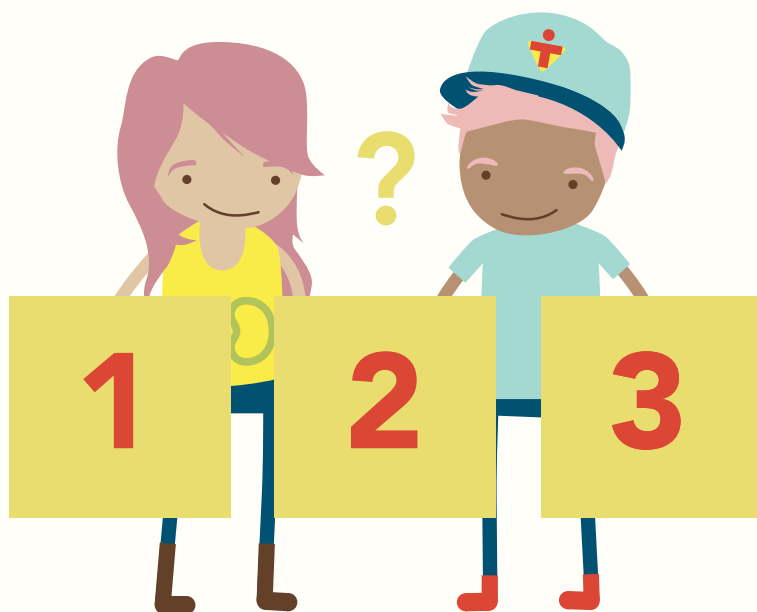


The Kidney Twins are busy! They have 3 big jobs for your body after cleaning blood and keeping balance.

UP NEXT: ADOLESCENT LEVEL

CONNECTIONS

ADOLESCENT LEVEL



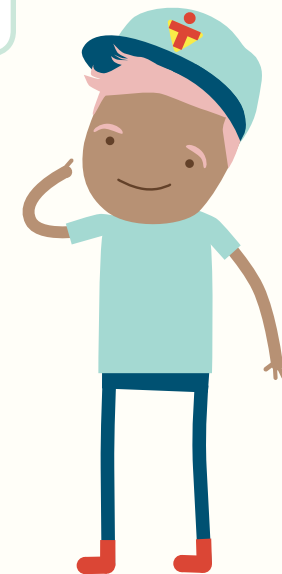
RESOURCES MENU

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The **kidneys** are way more important in our bodies than I ever thought. Do you remember what the kidneys do?



Don't they clean the **blood** and make sure there is **balance** in our body?

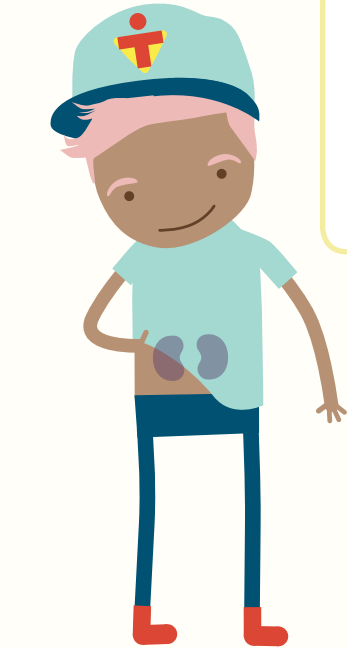


The Kidneys **recycle Building Blocks** that our bodies can **reuse** and they put other things in the **waste**. The waste comes out in **urine**. Urine has the things our body needs to get rid of.



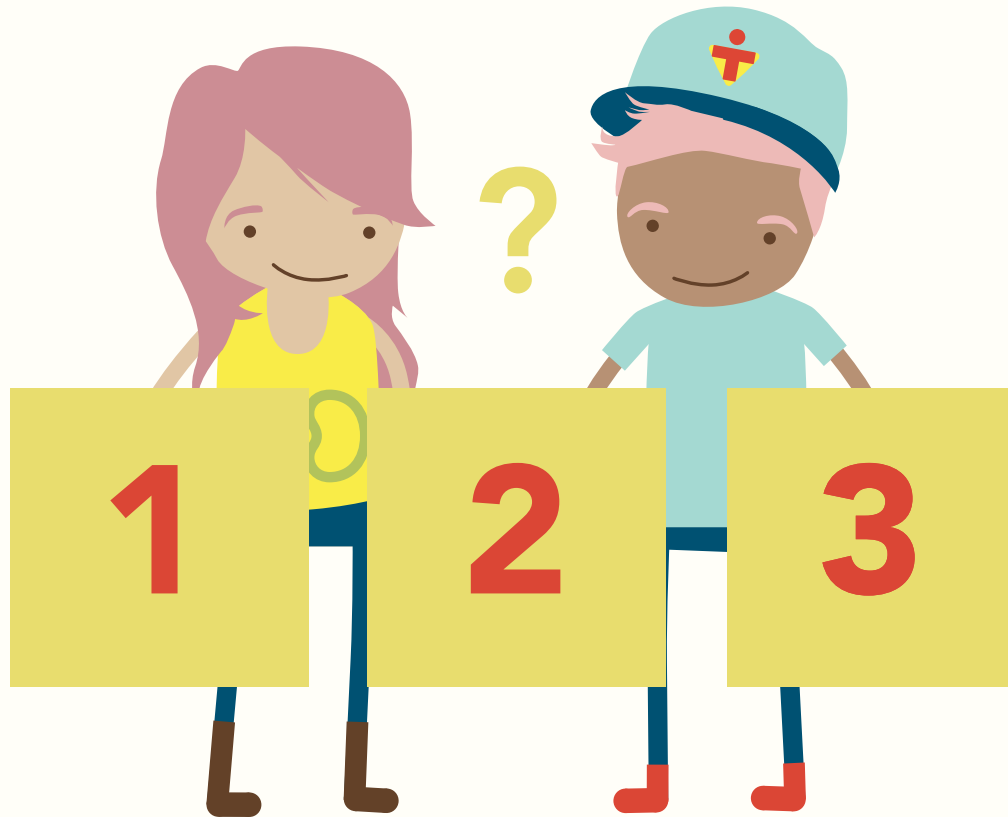
But, how am I supposed to know how well my kidneys are doing?

There's a **blood test** your **Kidney Health Team** can do anytime called **creatinine**. This test tells us how well the kidneys are cleaning blood. Then there is also a test called **GFR** that tells you exactly the level of **kidney function**.



The kidneys are really important for cleaning our blood, aren't they?

Yeah, and there are 3 more important jobs linked to specific parts of the body!



job

1



The kidneys help make sure we have lots of energy by helping our bones make **more strong** blood.

I know about this! The kidneys make a **hormone** called **erythropoietin**.

Erythro -what?

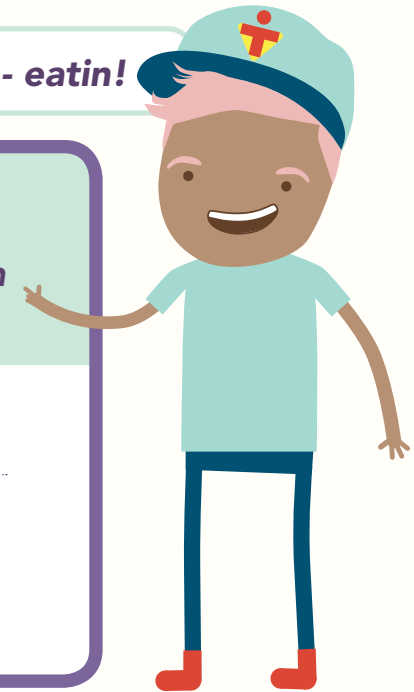
Close! It's **Er - ith - row - po - eatin!**



eryth·ro·poi·e·tin *noun*

Definition of ERYTHROPOIETIN:

a hormone made in the kidney that tells your bone to make more **red blood cells**.

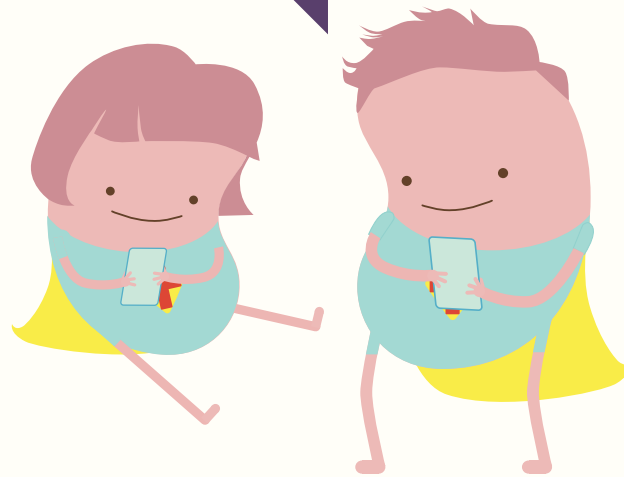


KIDNEYS: NEW MESSAGE

Hey @BONE, we need
#MOREBLOOD



The kidneys send a message to your **bone** that it is time to make **more strong** blood.



And lots of **strong blood** gives us energy!

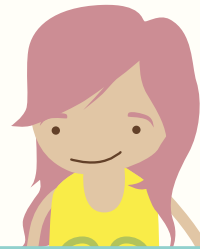
job

2



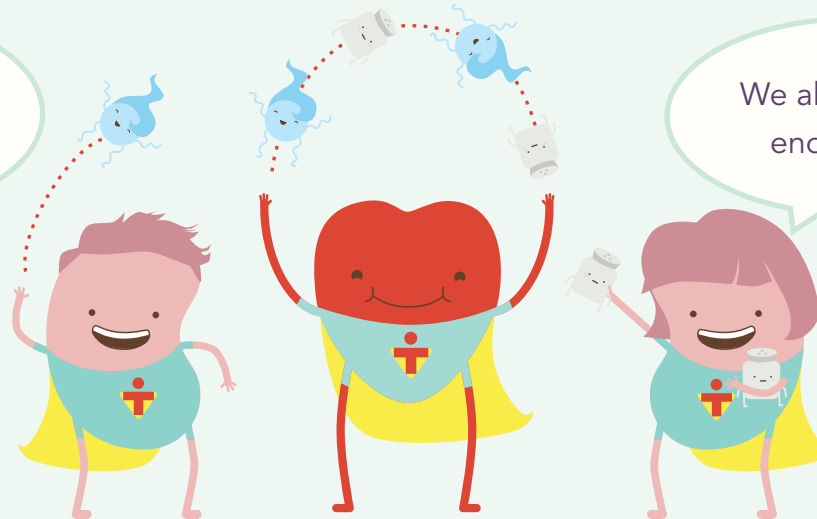
Your kidneys keep **balance** and know the right amount of **salt** and **water** needed in your body for your **heart** to be healthy.

Bet you would never guess that your kidneys influence **blood pressure**!



No way – so there’s a kidney and heart connection too?

Here’s some more water!



We already have enough salt!

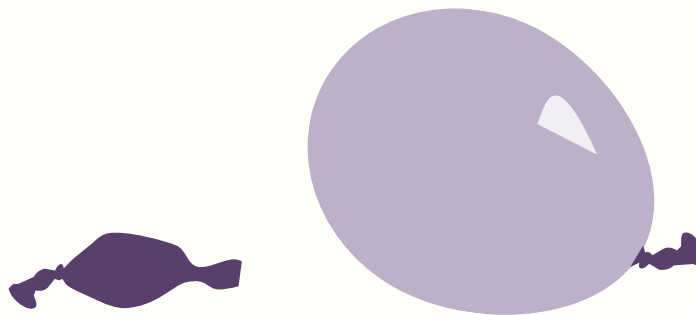


Ok, so our kidneys help keep our heart healthy. But I don't understand what you mean about blood pressure. What is pressure?

Have you ever filled a balloon with water? If there is not enough water, the balloon is too soft and can't keep its shape. If there is too much water, the balloon is stretched too thin and the pressure is too much.



Ahh, so we want just the right amount of pressure in the "balloon".



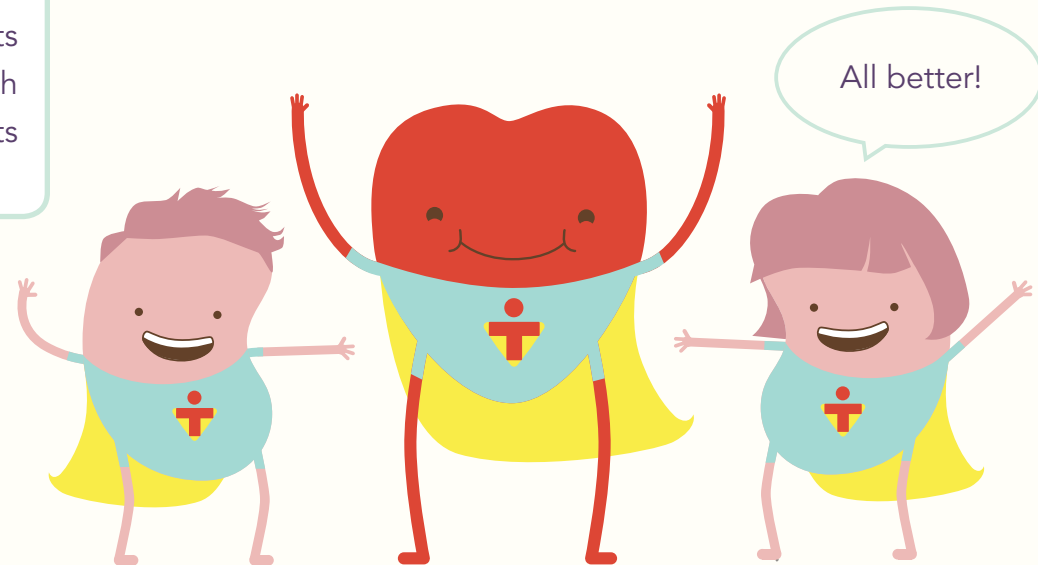
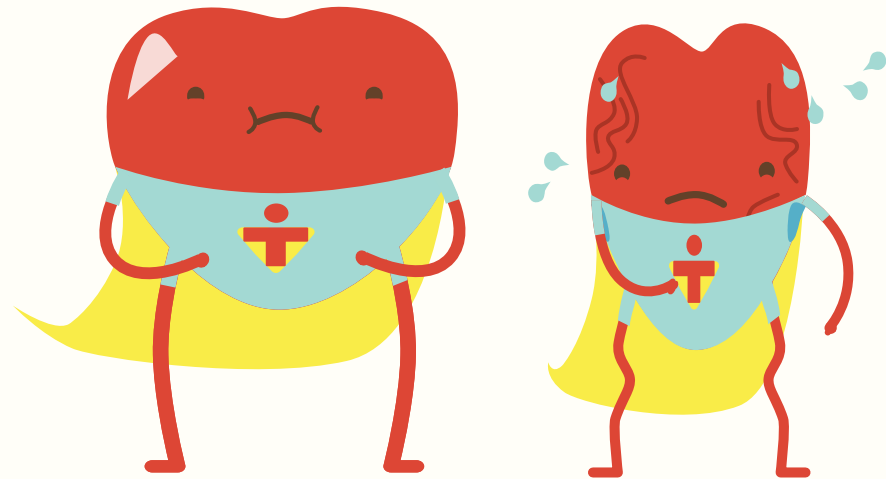
low pressure

high pressure



The kidneys are responsible for keeping the right blood pressure in our body.

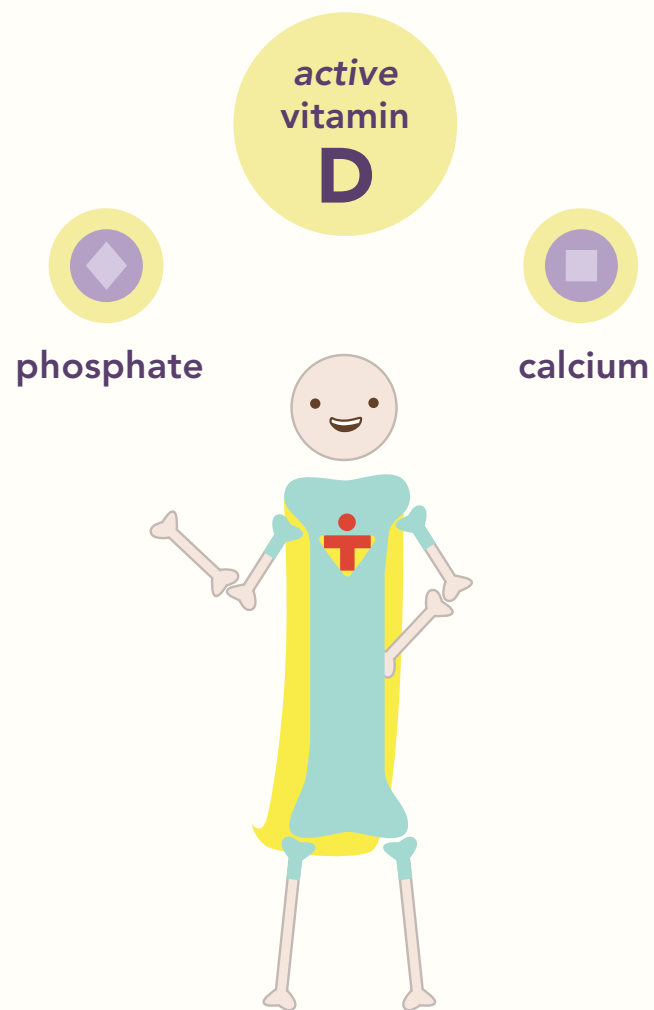
If there is too much pressure, your heart gets weak and sick, and if there is not enough pressure, your heart can't keep up and gets tired.



job 3

The kidneys help your body use **minerals** and **vitamins** to keep your bones strong.

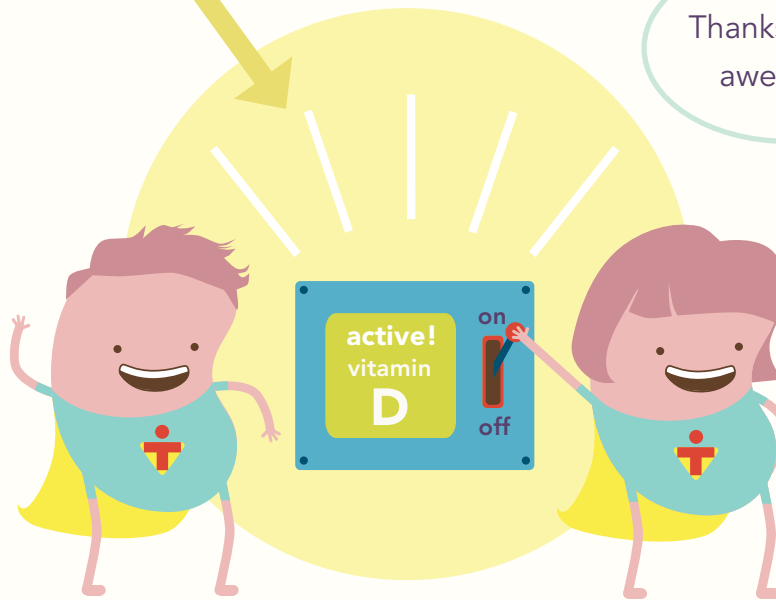
You need strong bones to grow, be active and feel good.



Our bones need the active form of **Vitamin D**. Our kidneys are able to turn Vitamin D into **Active Vitamin D** so our bones can use it.



Active Vitamin D helps your body use **calcium** and **phosphate** to make your bones strong.

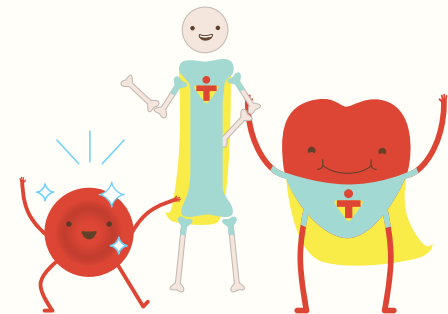
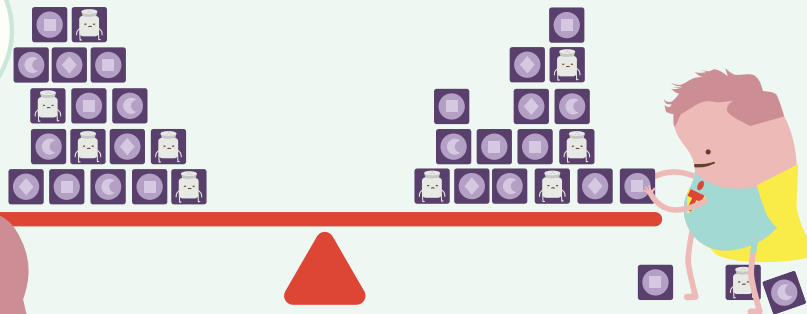


So, the kidneys actually keep us feeling good by cleaning our blood and keeping **balance** in our body.

They do! But they also keep our bones strong, tell our bones to make more strong blood, and keep our heart healthy.

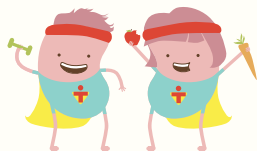
Wow. I'm starting to understand why it's so important to keep our kidneys healthy!

A little more calcium there.
Oh! And take out some salt
on the other side!





HEALTHY KIDNEYS



Created by Julie Strong BN, Tom Blydt-Hansen MD, Diane McKenty RN, and Angela Chotka MA with Pediatric Nephrology (Children's Hospital Health Sciences Centre) and Chotka Consulting: Creative Balanced Solutions. With thanks to the Children's Hospital Foundation of Manitoba for their generous support.

For more information about this resource, please contact Pediatric Nephrology at 204-787-4947 or jstrong@exchange.hsc.mb.ca or the Children's Hospital Foundation of Manitoba <http://goodbear.mb.ca>