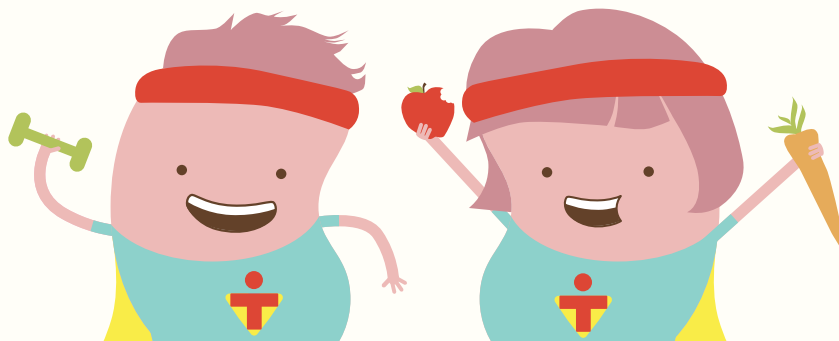


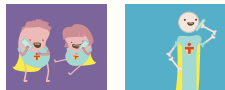
HEALTHY KIDNEYS HEALTHY BLOOD



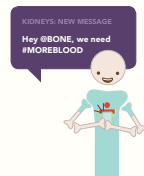
PRE-SCHOOL LEVEL



SCHOOL AGE LEVEL



ADOLESCENT LEVEL



RESOURCES MENU

1. Your Kidney Health Team
2. Meet Your Kidneys!
3. Balance
4. Connections
5. Healthy Eating
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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.

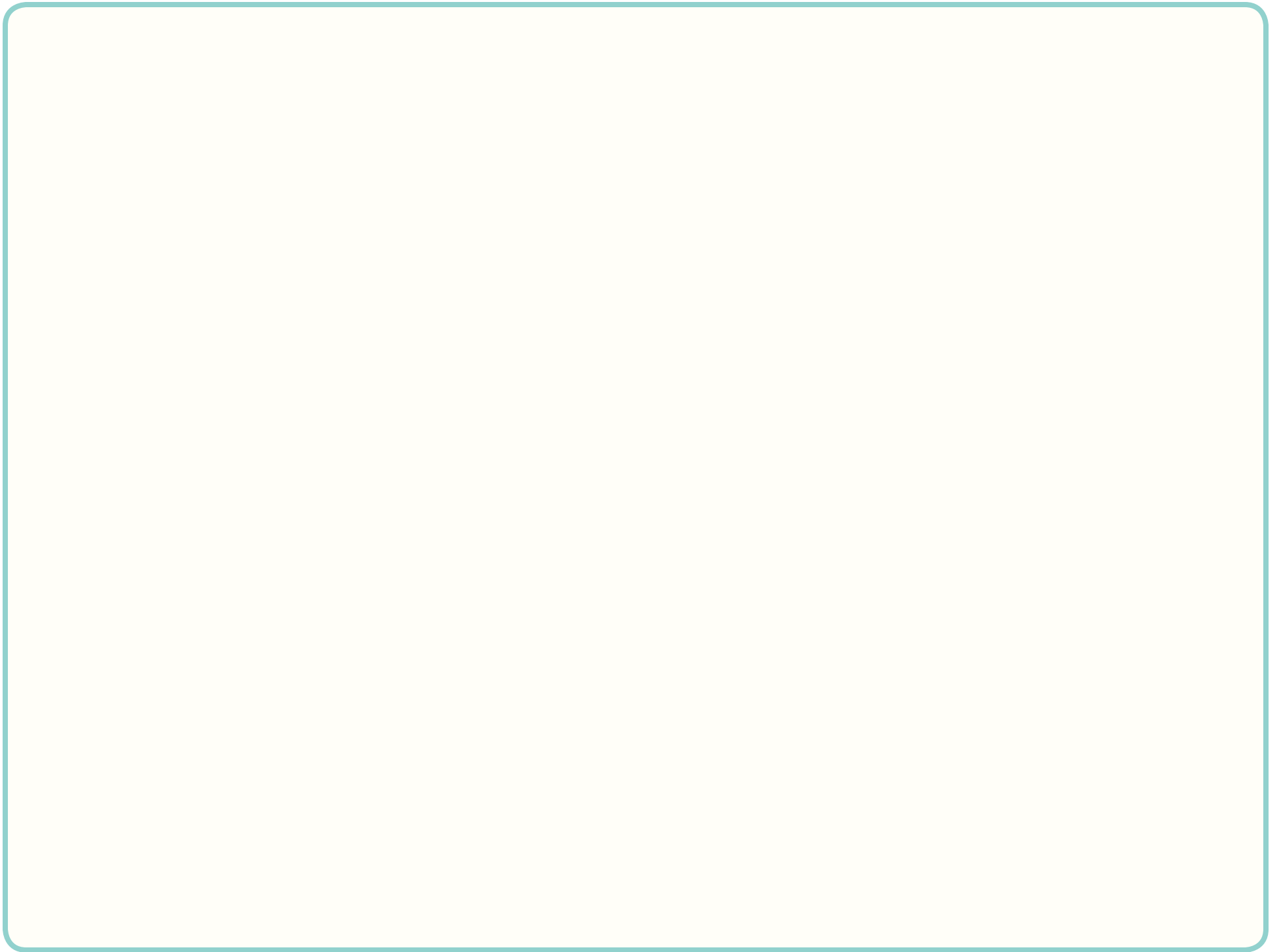
Finally, we thank the Children's Hospital Foundation of Manitoba for their financial support in the development of this resource.

Developmental levels within this resource:

PRE-SCHOOL LEVEL

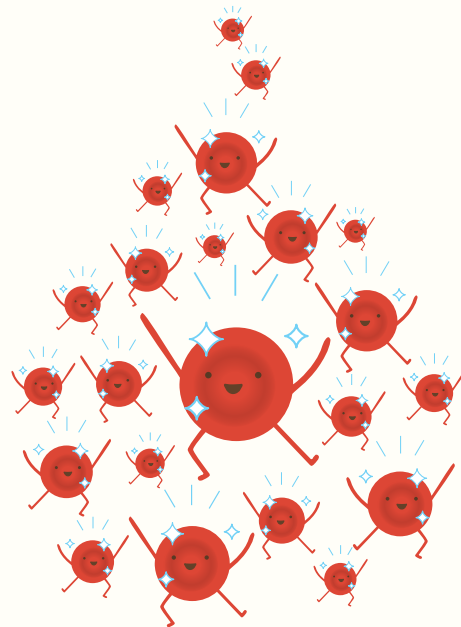
SCHOOL AGE LEVEL

ADOLESCENT LEVEL



HEALTHY BLOOD

PRE-SCHOOL LEVEL



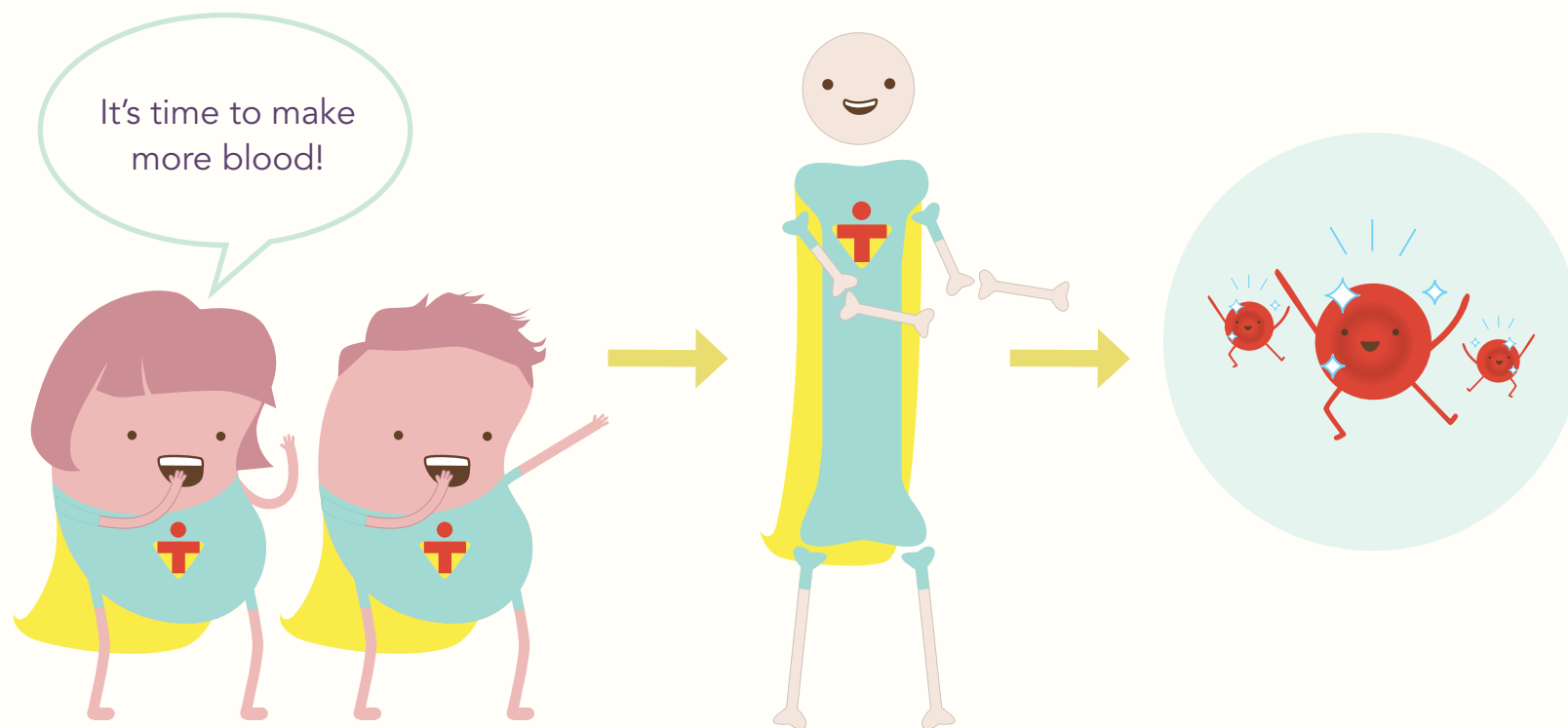
RESOURCES MENU

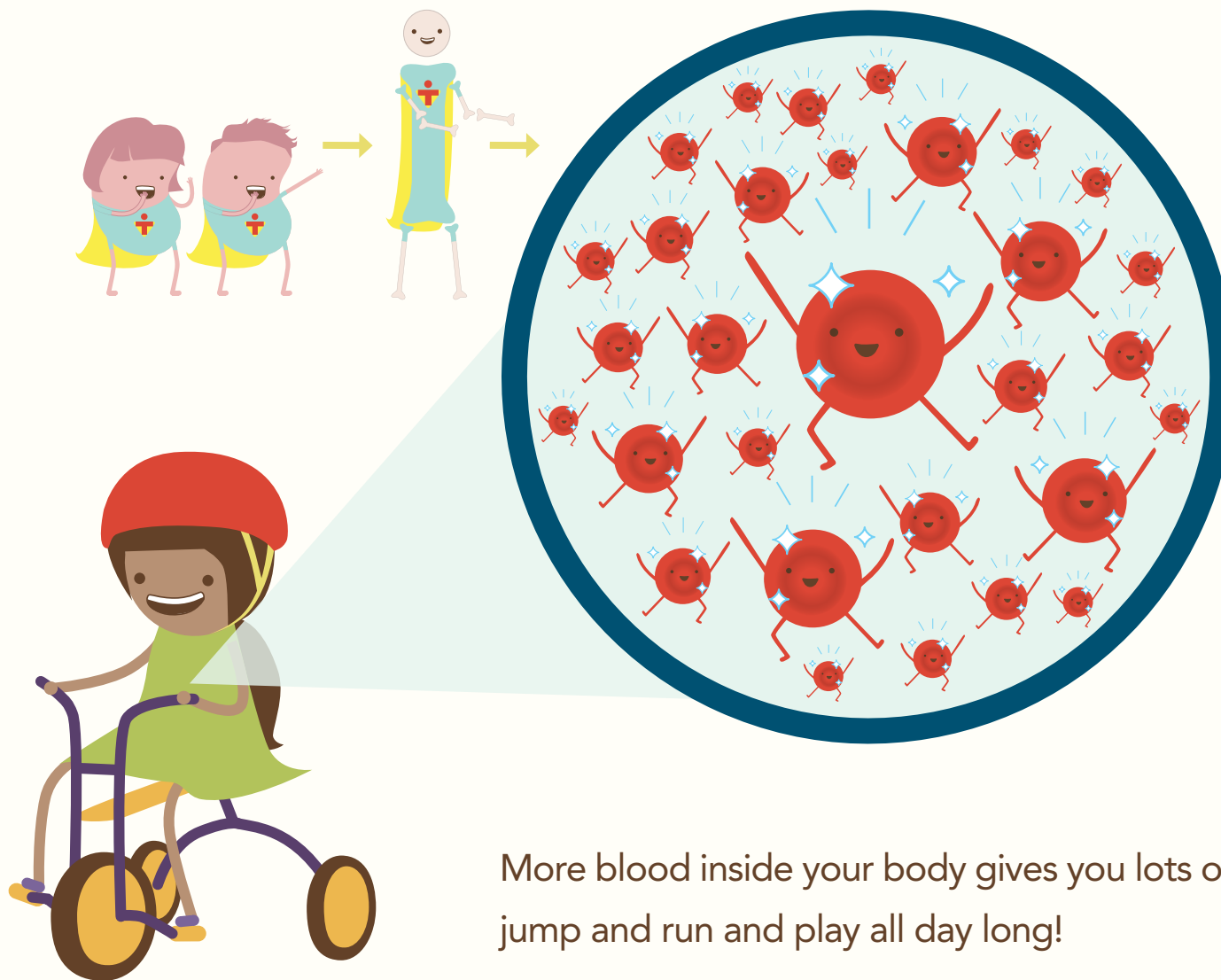
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Having **more strong blood** gives you lots of energy to play and run and jump all day long!

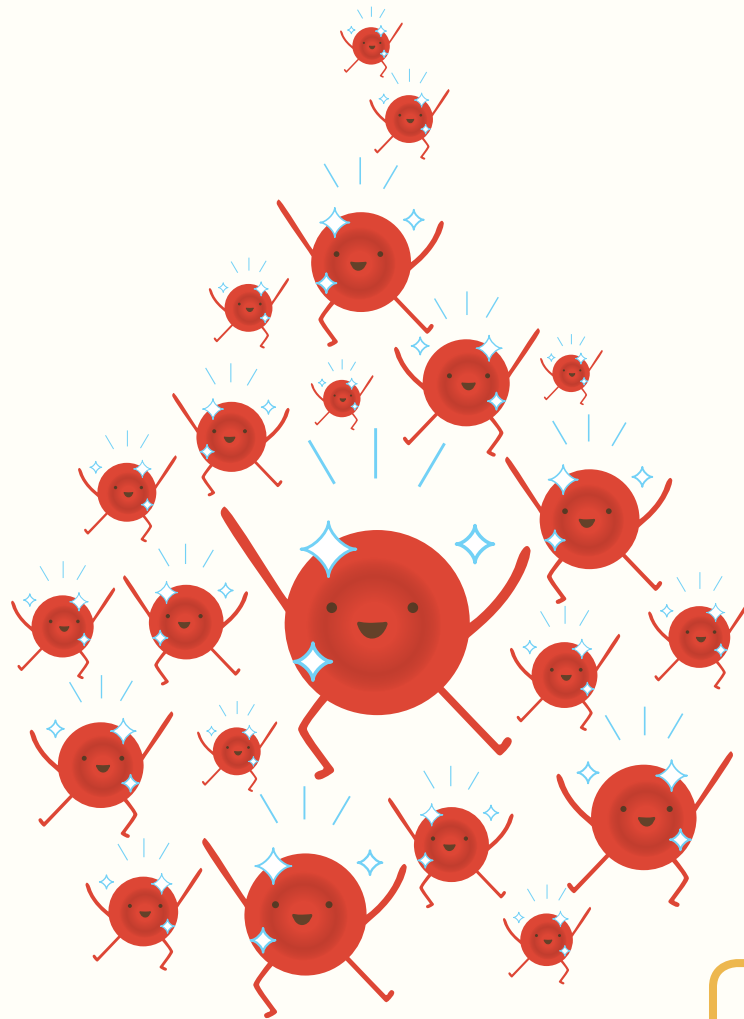
The **Kidney Twins** help make blood to keep you **strong** and healthy!



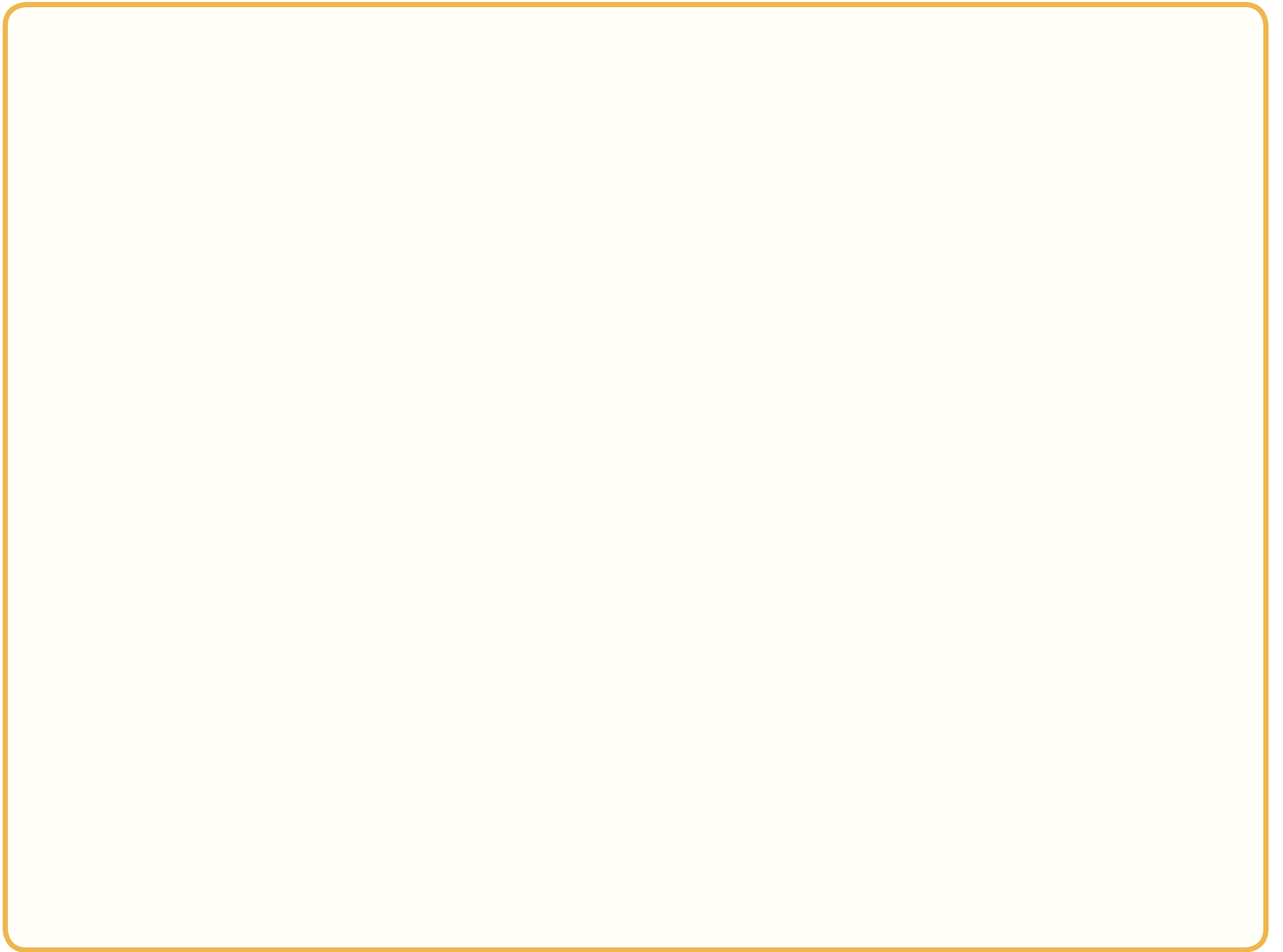


More blood inside your body gives you lots of energy to jump and run and play all day long!

You need lots of **strong blood** to give you energy!

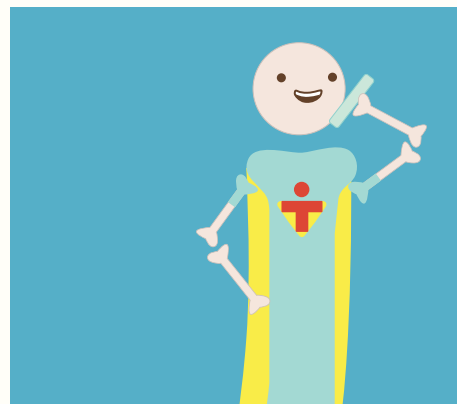
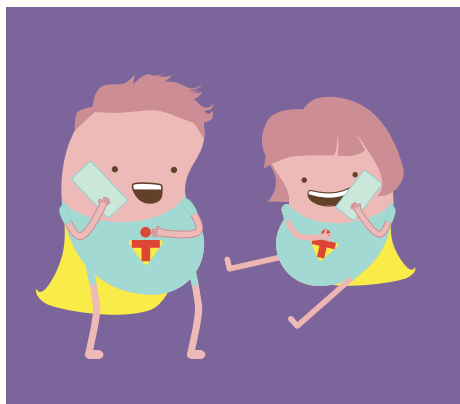


UP NEXT: SCHOOL AGE LEVEL



HEALTHY BLOOD

SCHOOL AGE LEVEL

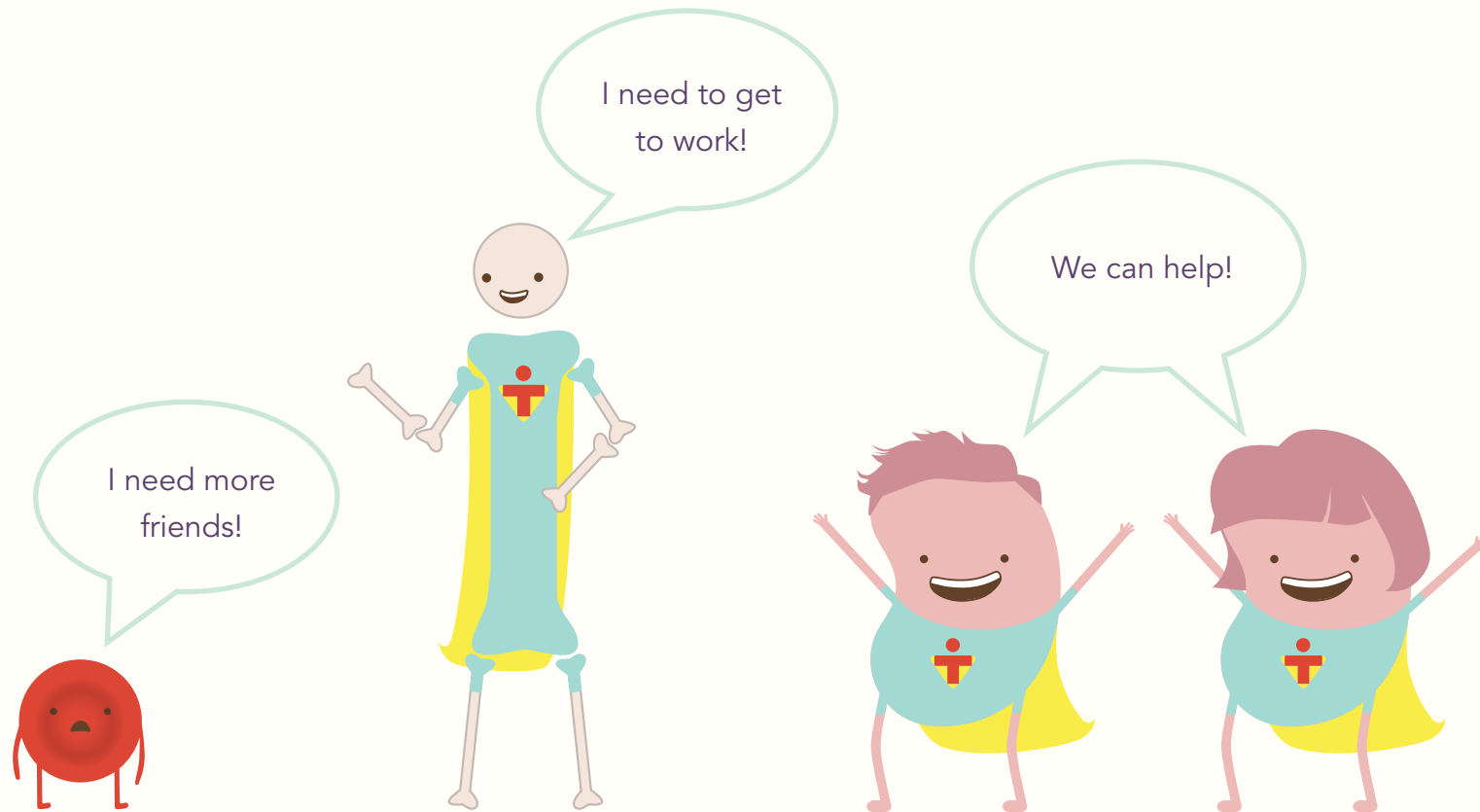


RESOURCES MENU

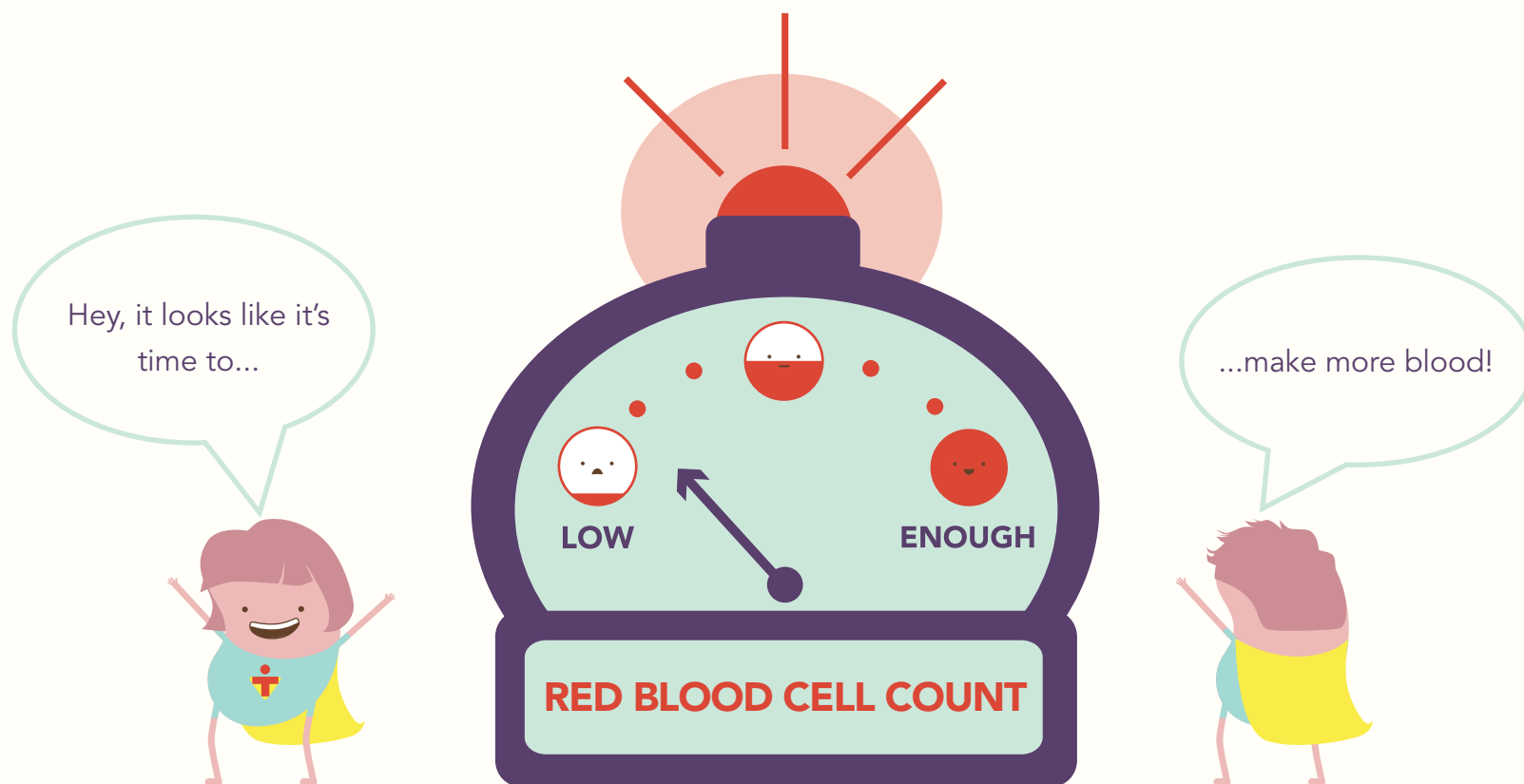
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You need the right amount of strong blood in your body. Having **more strong blood** gives you lots of energy to jump and run and play all day long!



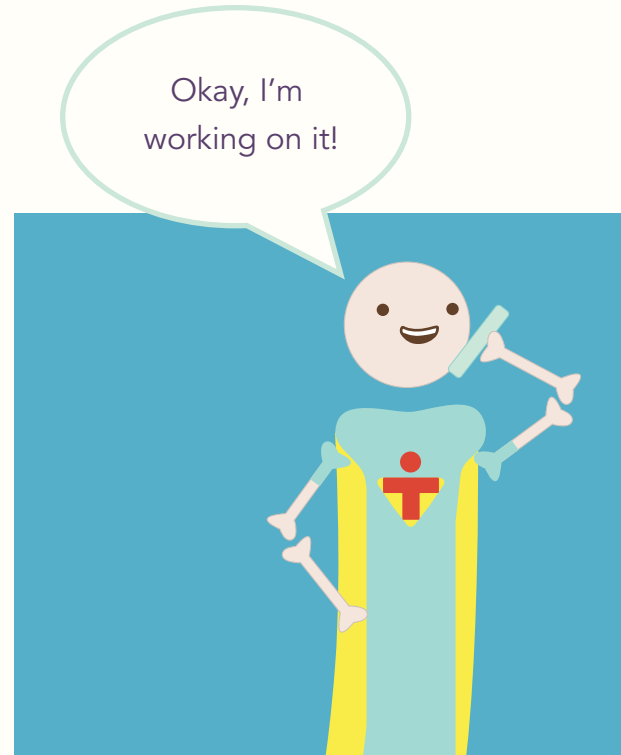
For your body to be healthy you need **enough blood** and it needs to be **strong**!



The **Kidney Twins** know when you need more blood.

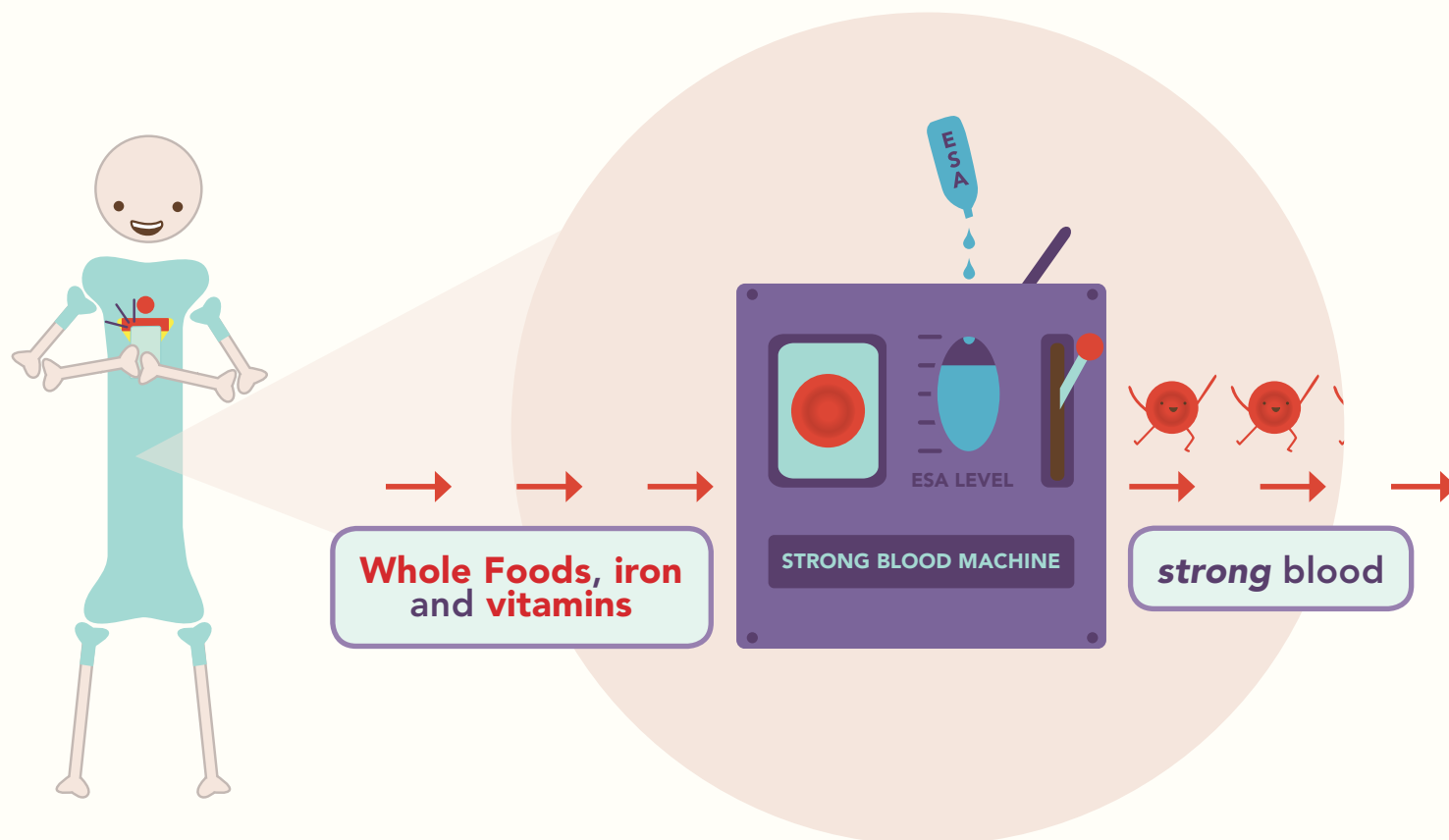


Hey **Bone!** We need more blood.

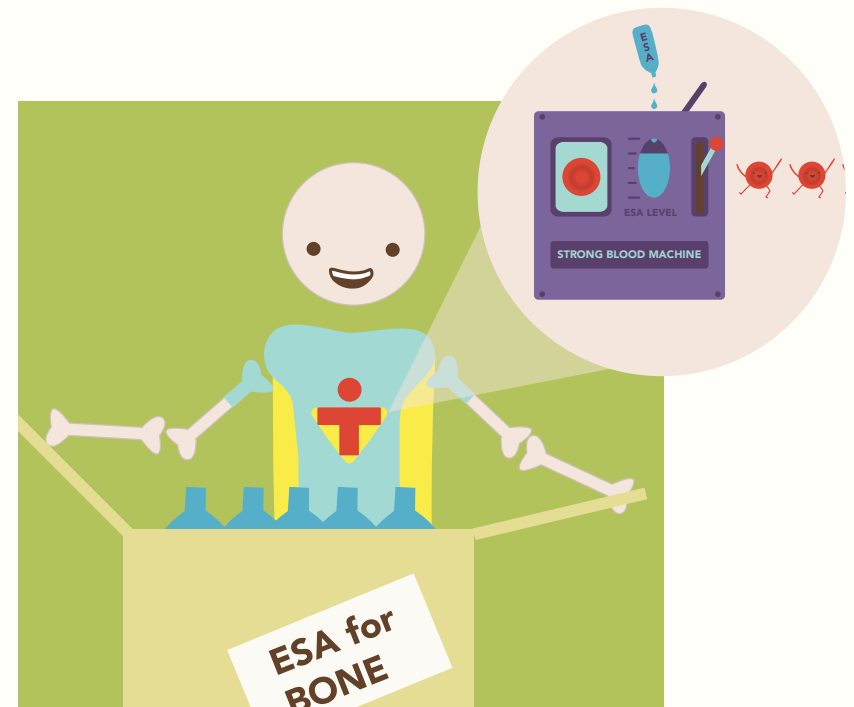


Okay, I'm working on it!

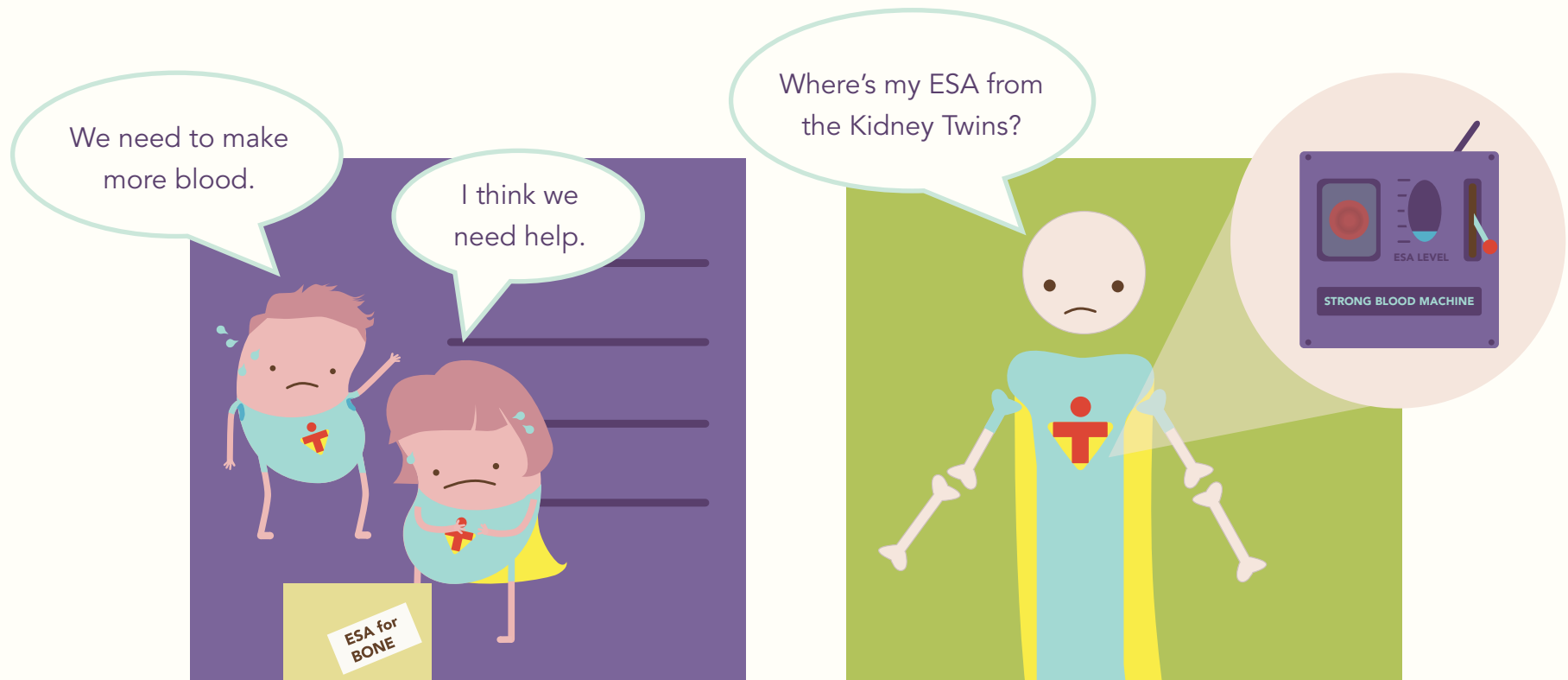
The Kidney Twins tell **Bone** to make more blood.



Inside your bones is like a machine that makes the right amount of **strong blood** for your body. The blood-making machine needs the right ingredients to make **more blood** and to make **strong blood**.

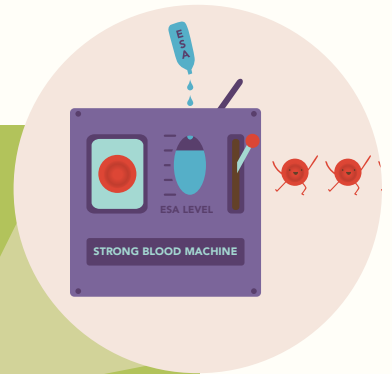


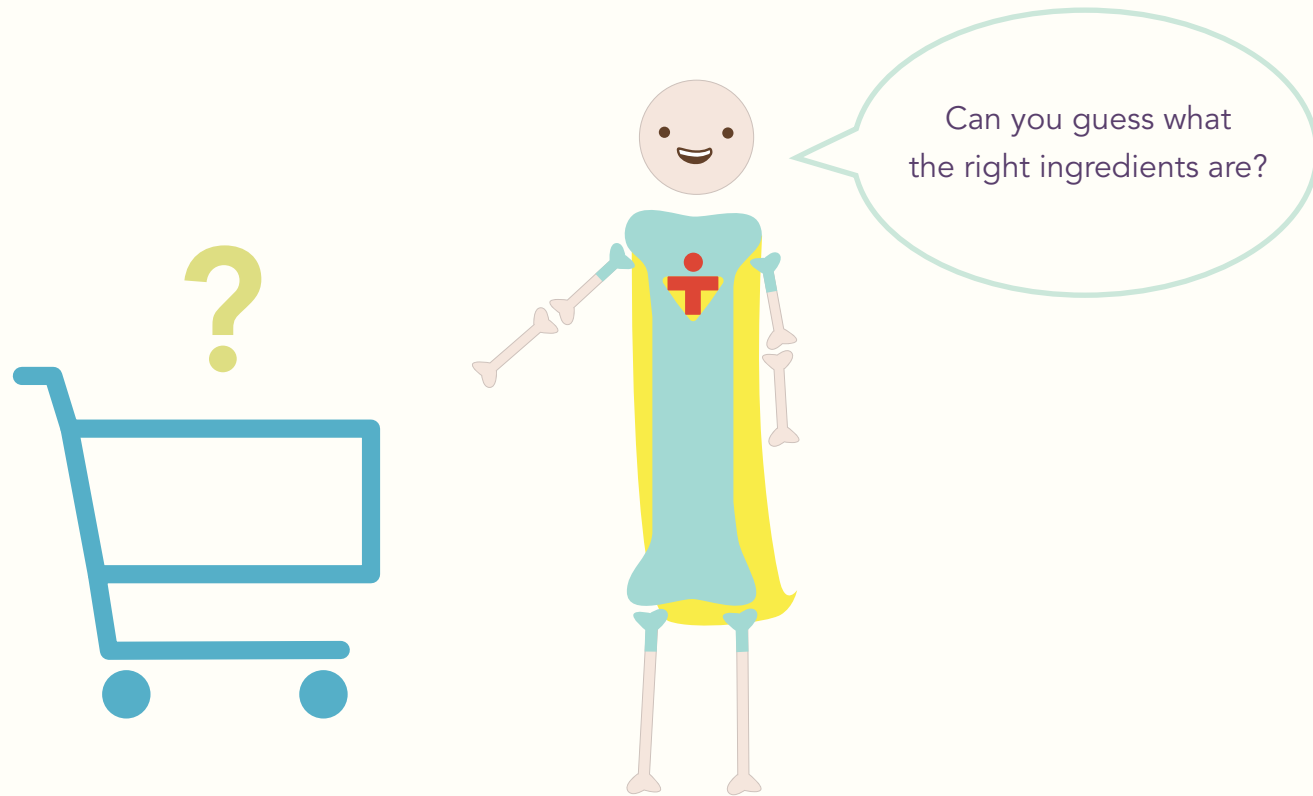
When it is time, the Kidney Twins send **ESAs** to Bone, to tell the Strong Blood Machine in Bone to make **more** blood!



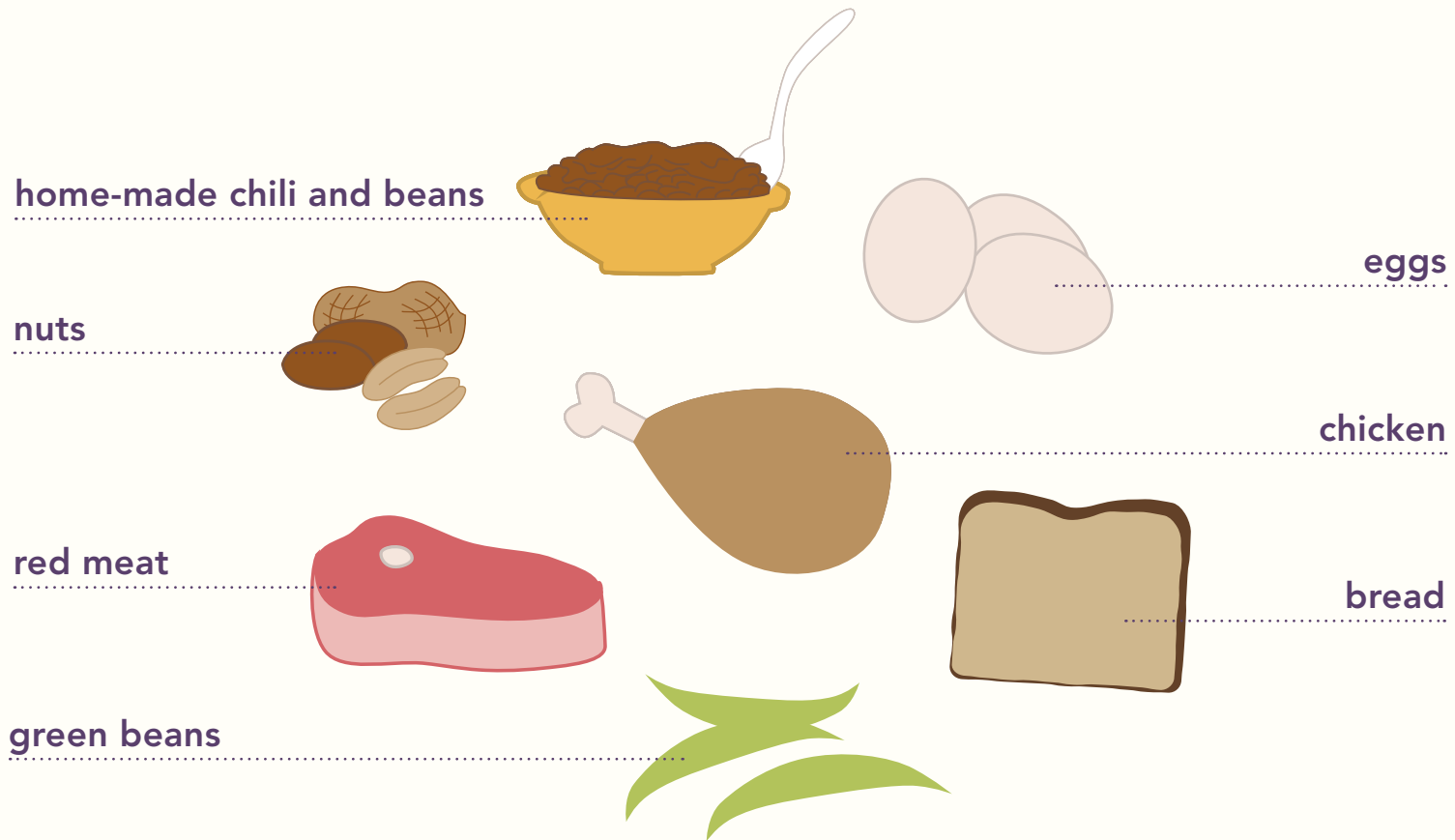
Sometimes the Kidney Twins need help to send the ESA message to Bone.

OK, we were given the ESA and now we have enough. Here goes the package to Bone!





Now that he has the message to make more blood, Bone needs the right ingredients to make **more strong** blood!



Your body needs **Whole Foods** to make strong blood - which gives you energy!

Whole Foods have lots of **iron** and **vitamins**.

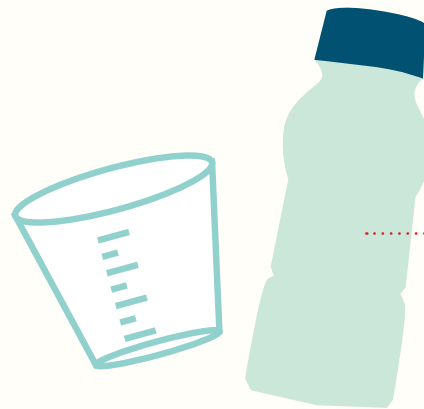
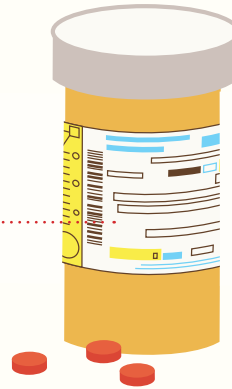
How can you get these ingredients in your body?



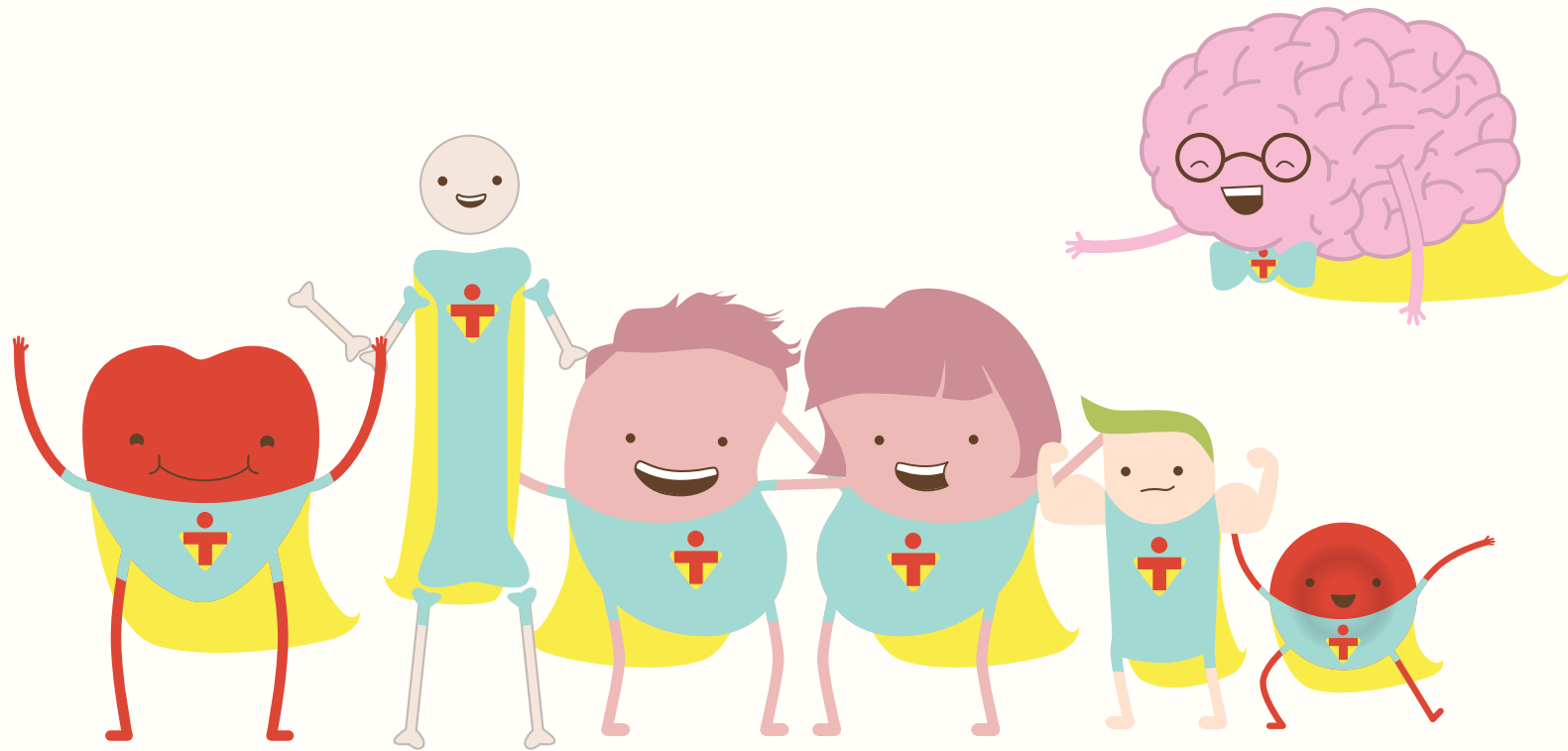
You can eat them!

Sometimes your body needs help getting the ingredients inside your body.
These can help:

pills



nutrition supplements



Enough strong healthy blood is good for your whole body!

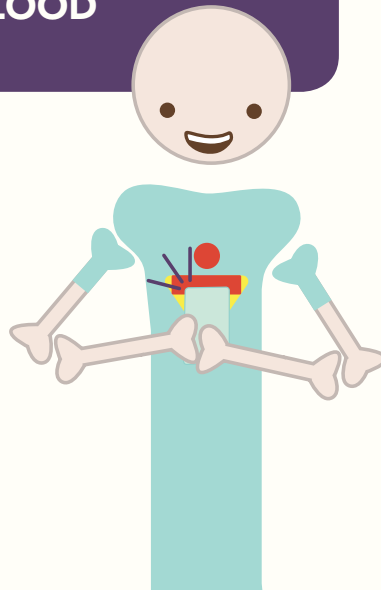
UP NEXT: ADOLESCENT LEVEL

HEALTHY BLOOD

ADOLESCENT LEVEL

KIDNEYS: NEW MESSAGE

Hey @BONE, we need
#MOREBLOOD



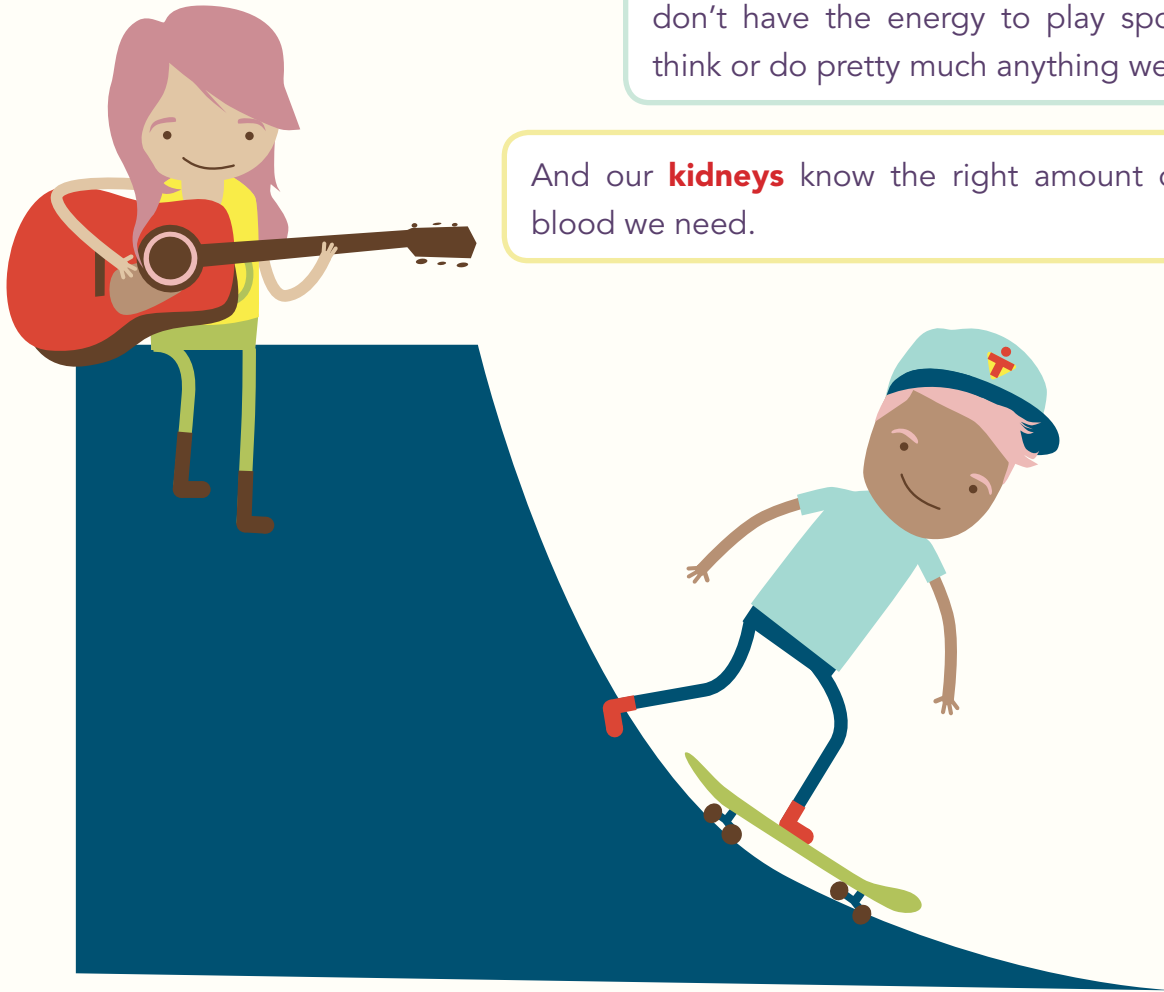
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Why do we need **enough strong blood**?

If we don't have enough strong blood, we don't have the energy to play sports, grow, think or do pretty much anything we want to!

And our **kidneys** know the right amount of blood we need.

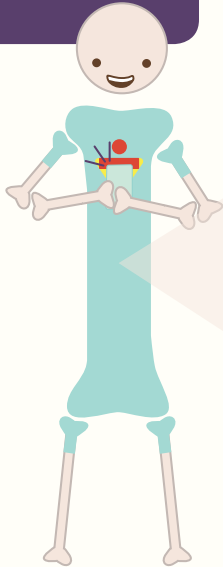


Our kidneys clean blood but they also help our **bones** make blood.

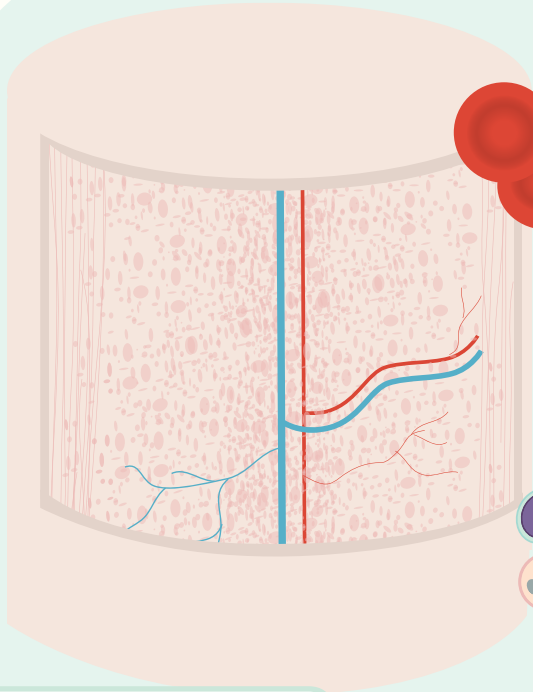
How do our bones do that?



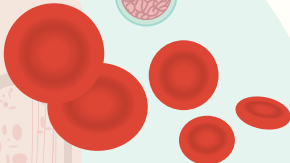
KIDNEYS: NEW MESSAGE
Hey @BONE, we need
#MOREBLOOD



ESA



blood stem cell



red blood cell

strong blood

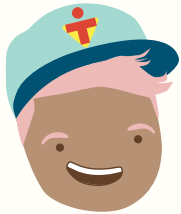
white blood cell



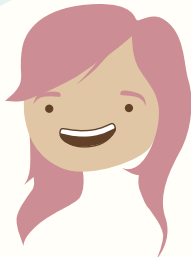
platelets



Our kidneys send a message to bone through ESA. The ESA message tells bone to make more blood.



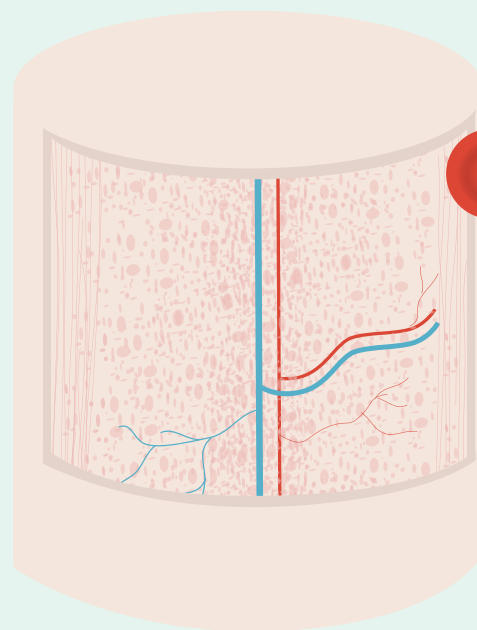
Yes, sometimes, the kidneys have a hard time making enough message to send to our bones and need a little help.



Sometimes our kidneys don't make enough ESA.



ESA



strong blood

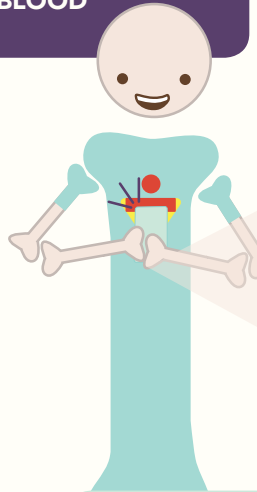
If your kidneys need help, you might need an **ESA injection**. This will help your kidneys by sending enough message to your bones to make **more** blood.



Your body needs the right ingredients to make strong blood.

KIDNEYS: NEW MESSAGE

Hey @BONE, we need
#MOREBLOOD



Whole Foods,
iron and vitamins



strong blood

So, it turns out we need certain things to make
enough strong blood.

Yup! We need the right ingredients to make
enough strong blood.

What are the right ingredients?



The right ingredients come from good **nutrition** - and we get that through eating **Whole Foods**. Good nutrition for **strong** blood has lots of **iron** and **vitamins**: check it out!



Whole Foods Menu for STRONG BLOOD!

- home-made chili
- wild meats
- beef
- lamb
- pork liver
- dark poultry meat
- dried fruits
- spinach
- kale
- lentils
- beans



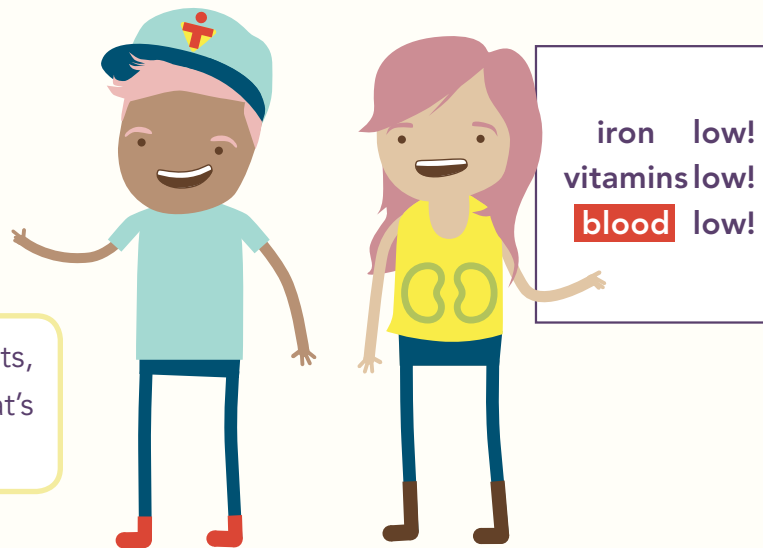
Pills



Nutrition Supplements

The **Kidney Health Team** checks your blood to see if you have enough of some ingredients. If you need more iron and vitamins, you might need to take some **pills** or **nutrition supplements**.

If we don't have the right ingredients, we can't make **strong** blood. That's called **anemia**.



Can we feel if we have anemia?



WARNING

If you have anemia, you might:

- feel really tired compared to your friends
- have trouble thinking clearly
- have pale skin
- have a headache
- have a fast heart beat or feel short of breath, especially when you are active
- have leg cramps



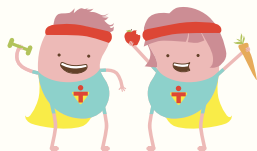
But if I eat the right kinds of food, I can help prevent anemia, right?

Yes, but sometimes you still need extra help to make more blood and make it strong. That's why you might also need certain pills or injections. Your **Kidney Health Team** will talk with you about how to do that!





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>