





NOTES

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



3. GLOBAL LEARNING OBJECTIVES

By the end of this session, the children and their family will be able to describe the key function of kidneys: that your kidneys keep balance in your body.

Supports: Diagrams or models in each appointment room.

KIDNEY HEALTH MODULES DESIGN OVERVIEW

This material was compiled and designed to meet the needs of the diverse children, their families, caregivers and the health care providers who will be facilitating learning about how to live well with chronic kidney disease.

The design incorporates findings from research on providing health education information to children and adults. A number of families agreed to allow the consultant observe their appointments and interview them about learning about and managing their or their child's chronic kidney disease. In addition, health care providers received a questionnaire and were interviewed about their priorities for children and families in order to manage CKD effectively.

To determine initial topic areas, children and families were asked what was most important to know and most important to be able to do to manage their disease well. The Project Team considered what is required to manage CKD well from their perspective. From this information, topics were grouped into the resulting 16 topic areas. Certainly, for parents and children, "being able to do" things to manage CKD took priority over understanding so much about the disease.

Once the topic areas were determined, the consultant worked with pediatric nephrology health care providers to determine learning objectives for the 3 developmental stages and parents and caregivers.

Using plain language principles and best practices for developmental stage learning design, modules were designed to guide learners towards achieving the learning objectives.

Each module begins with an overview of all learning objectives. The learning objectives are informed by the Key Messages and Clinical Targets which are supported by Resource Materials for the facilitator for each module.

Each section of the module begins with reminders about your approach, appropriate for each developmental level. There is ample white space for you to write your own notes and ideas for delivery.

The Parent and Caregiver Resource provides highlights of the concepts and terms for each module as well as the full glossary for that module. There is also a listing of relevant online and library-available resources.

FACILITATING LEARNING

Facilitating learning puts the emphasis on the learners and their interests and abilities rather than on an outside entity. How does this affect what you, as the healthcare provider, do?

- Work with people where they are at.
- If families are not ready to make a change, they do not need to sit through the presentation of materials. You may want to just give the Activity Sheet to these people. Or you may wish to start a conversation about what the Kidney Health Team can do to help the family feel they are ready to make some changes.
- Use Motivational Interviewing techniques.
- Be careful not to ask for more than one change at a time.
- Not everyone will be able to understand or use the information in the same way. You may find yourself revisiting modules with some children and families repeatedly while others will go away and look into things on their own.
- You will be helping people learn how to manage the disease rather than learn about the disease and understand why the doctor or healthcare team is recommending certain types of management.

Connecting and Relating Learning

A key premise of this work is interconnections. As a facilitator, find ways of linking concepts and tools throughout the modules. As much as possible, concepts are built upon throughout the modules. For instance, in Connections we begin to talk about heart health and kidneys. In Blood Pressure, we build upon that knowledge and introduce the concept of perfusion.

Applying information

Encourage children and families to refer back to information and use the concepts and terms presented. Make sure they are holding the "story books" flipping through them and back and forth in a way that makes sense to them. The concepts and information designed are ageappropriate, clinically and medically accurate and meant to be applied. The Activity Sheets are designed for use people at all levels to reinforce vocabulary and concepts.

Visual Learning

The vast majority of people are visual learners rather than auditory learners. Interesting graphics that tell a story are a more effective way for many people to learn than either listening to information on its own or reading dense information. You will notice that the glossary terms are supported through graphics linked to concepts introduced in the modules.

Literacy Levels

In Manitoba, 40% of working adults have low literacy levels. Give people time. Let them contemplate the graphics. Keep your language plain.

RESEARCH KEY FINDINGS

Developmental Stages and Learning Design Key Points

- Importance of play in learning and education for all levels.
- School-age: time to create and reinforce healthy rituals.
- Adolescence: begin to share consequences but limited.
- Delivery of learning is key: recommendation to embrace motivational interviewing as intervention approach.
- Use of transtheoretical / stages of change model.
- HCP as facilitator of learning.

Child / Parent Consultations Summary Key Points

- The "how" needs to come before the "why" in educating. Some patients and families may never get to the "why."
- Global approach to living healthily and move towards the rationale.
- The lived experience is how we need to think about the learning and educating.
- Appreciation for visual cues and teaching aids.
- Need for useable, family-friendly diet information:
 - shopping lists and pantry list.
 - meal plans for breakfasts, lunches, dinners, snacks that are kidney health friendly and will work for whole family.
- Patients and families do and want to learn from each other.
- Value in emailing nurse clinician.

Best Practices for Health Education Summary Key Points

- Emphasis on action-oriented teaching: what people need to do and how to do it.
- Put positive in front of negative: provide hope rather than feed despair.
- Use simple pictures and graphics to display proportions.
- Plain language is not "dumbed down": it is simply clear.

For more information, contact any member of the Kidney Health Advisory Group:

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DEVELOPMENTAL LEVEL OBJECTIVES

By the end of this session:

The Pre-School Age Child will be able to:

a) understand that kidneys clean the blood

Possible activities include: sieve / colander, marbles;

The Adolescent will be able to:

- a) develop understanding of the connections and balance needed between salt, water, protein, waste, minerals, blood and keeping healthy
- b) understand that there is a right amount for everything in your body and the kidneys are key in keeping this balance.

Possible activities include:

The School Age Child will be able to:

- a) identify that the kidney is a filter that knows the things you need in your body and the things you don't need in your body.
- b) recognize terms: salt, water, protein, waste, minerals, blood

Possible activities include: sieve / colander, marbles;

The Parents and Caregivers will be able to:

a) understand their role in keeping healthy choices in the home to support kidney health.

KEY MESSAGES

- 1. We can estimate the health of kidney filtration by looking at blood tests like serum creatinine.
- 2. Serum creatinine normally increases in proportion to muscle mass (i.e. as the patient grows).
- 3. Confirmation of actual kidney function requires a measured GFR test.
- 4. Damage to glomeruli can be detected in the urine by looking for protein.
- 5. Kidney filtration adapts as the child grows.
- 6. Na is the primary and most important regulator of water balance in your body.
- 7. Hormones interact with the kidney to regulate the specific levels of all of the blood minerals to keep them in tight balance.

TARGETS FOR FACILITATORS TO BE AWARE OF

- 1. There is an estimating equation for GFR (glomerular filtration rate) i.e. Schwartz.
- 2. Normal levels of urine albumin (usually as albumin/creatinine ratio).
- 3. Normal levels of Na intake (can't tell body salt content from blood tests specifically).
- 4. Regulation of "fluid balance" is primarily mediated by directing changes in Na intake.
- 5. There are urine tests to check for tubular functions and assess responses to things like dehydration.
- 6. There are targets for normal levels of critical blood minerals.

PRE-SCHOOL LEARNING



PRE-SCHOOL LEARNING OBJECTIVES

Remember ... children can use words and images to represent objects but are not yet reasoning logically.

The Pre-School Age Child will be able to:

a) understand that kidneys clean the blood

Possible activities include: sieve / colander, marbles;

MY APPROACH

- 1. Where is this family at? (Stages of Change)
- 2. Acknowledge what children do or say.
- 3. Model attitudes, ways of approaching problems and behaviours towards others rather than telling them.
- 4. Ask questions to provoke thinking; describe pictures.
- 5. Provide hints to assist children when they are struggling with concepts.
- 6. Offer a variety of choices when children are trying to find the answer.
- While your time is limited, try to give children and family time to think about the material and messages.

LEARNING SUPPORTS

Have you got the Learning Supports you might want to use? sieve / colander, marbles;

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Remember the *Kidney Twins*? How big are they? Do you remember where they live in your body? Do you remember what they do?

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The Kidney Twins really want to keep your body **strong** and **healthy**.

1. Can you remember the Kidney Twins?

Can you remember how big they are? (show your fist)

Do you remember where they live in your body?

Do you remember what the Kidney Twins do? (make pee)

(may want to refer to Meet Your Kidneys)

2. The What are the Kidney Twins doing?

- eating an apple
- eating a carrot
- playing
- being strong

Eating good food and being active helps your body and your kidneys be strong and healthy!

BALANCE





- 3. What are the Kidney Twins doing in this picture?
 - laughing
 - playing with their friend

Their friend is called Blood. They play together all the time.

4. What is Blood doing? Yes, he's doing somersaults and running and laughing and lifting weights – he's very busy!

When he plays with all his friends, he gets dirty and tired.



5. When Blood plays and runs around he gets many things stuck on him.



6. What is happening to Blood?

The Kidney Twins are giving Blood a bath.

There are things dropping into the toilet – can you guess what that is? Yes, it's pee.

And then Blood is clean and ready to play again!

Now it's time to talk to your parents.

Review Parent and Caregiver Resource.

UP NEXT: SCHOOL AGE LEVEL

SCHOOL AGE LEARNING



SCHOOL AGE LEARNING OBJECTIVES

Remember ... children can think logically about concrete objects and can apply rules in a consistent way.

The School Age Child will be able to:

- a) identify that the kidney is a filter that knows the things you need in your body and the things you don't need in your body.
- b) recognize terms: salt, water, protein, waste, minerals, blood

Possible activities include: sieve / colander, marbles;

MY APPROACH

- 1. Where is this family at? (Stages of Change)
- 2. Acknowledge what children do or say.
- 3. Model attitudes, ways of approaching problems and behaviours towards others rather than telling them.
- 4. Provide information, directly giving children facts, labels and other information.
- 5. Ask questions to provoke thinking; describe pictures.
- 6. Provide hints to assist children when they are struggling with concepts.
- 7. Offer a variety of choices when children are trying to find the answer.
- 8. While your time is limited, try to give children and family time to think about the material and messages.

LEARNING SUPPORTS

Have you got the Learning Supports you might want to use? sieve / colander, marbles;

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1. Do you remember the Kidney Twins?

Where do they live in your body?

What does it look like they are doing in this picture?

- playing with a friend
- laughing with a friend

Yes, they are good friends with Blood.

Blood is part of the Body Team!

2. The kidneys are also part of The Body Team!

This important team works together to keep you healthy so you can do all the things you want to do.

Can you see the Body Team logo on everyone?

Can you guess any of the other members of the Body Team?

Walk through the Body Team: Heart, Bone, Kidney Twins, Muscle, Blood, Brain. The **Body Team** uses **Building Blocks** like **minerals, water**, and **protein** to keep your body healthy.



Minerals





3. The Body Team needs Building Blocks.

"Building blocks" is a way to explain how the body uses different substances together to make our body tissues and organs work, become stronger and healthier.

The building blocks for each body system are different.

* Facilitator's Note: Extra learning if appropriate: The building blocks for each body system are different. For example, the bones use the calcium, phosphate and vitamin D building blocks. Muscles need the right amount of protein, potassium, calcium and energy building blocks.

When the Body Team uses their Building Blocks things can get messy! The Kidney Twins help clean up the waste or garbage. The waste comes out of your body in **urine**, or pre.

4. The Body Team uses their Building Blocks and it gets messy.

The Kidney Twins help clean up. Can you see the Kidney Twins putting some Building Blocks in that big bag? Do you remember the name of the big bag?

(Bladder)

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Kidneys have a special job for the Body Team. They help the rest of the team stay healthy. The Kidneys keep things your body needs. The Kidneys know the *right* balance of water, minerals, and salt.

When the Kidneys find things your body does not need, they put them in the **waste**. Your **urine** is made up of **water**, lots of waste, salt, and some minerals.

5. What's happening in this picture?

What is the Kidney Twin doing? What can you see in this picture?

- garbage bin
- recycling bin
- Kidney Twin

The Kidney Twin is using her filter and keeping things your body needs – those go in recycling.

Other things go in the garbage. If there is something your body does not need, the kidneys put it in the waste. The waste is in your urine.

* Facilitator's Note: Extra learning if appropriate. We have Building Blocks in our body. The kidneys know the right balance of Building blocks: water, minerals and protein and salt. Urine is made up of water, lots of waste, salt and some minerals.

6. The Body Team members gets Building Blocks from the kidneys.

Here's your protein and minerals!

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Facilitator's Note: Extra learning if appropriate.
 Let's look at the building blocks again. For example, the bones use the calcium, phosphate and vitamin D building blocks. Muscles need the right amount of protein, potassium, calcium and energy building blocks.

Activity: matching exercise

BALANCE



7. There are many things to balance in your body so you can be healthy and do all the things you want to do.

Who balances things in your body?

The Kidney Twins!

* Facilitator's Note: Extra learning if appropriate. What part of the body does this important job? Yes, your kidneys.



8. If our kidneys are not healthy, it is harder and harder for them to do their important jobs in our body.

We talked about a lot today. Who did we meet today?

The Kidney Twin's friend, Blood.

We also met The Body Team. Can you remember some of the members of the Body Team?

Then we learned about the Building Blocks. The Body Team plays with the Building Blocks and makes a mess.

The Kidney Twins clean up the mess. The Kidney Twins put some Building Blocks in the recycling for our body to use again and they put some Building Blocks in the waste. The waste comes out of our body in our urine.

Review Parent and Caregiver Resource.

UP NEXT: ADOLESCENT LEVEL

ADOLESCENT LEARNING



ADOLESCENT LEARNING OBJECTIVES

Remember ... many adolescents can reason abstractly and think in hypothetical terms

The Adolescent will be able to:

- a) develop understanding of the connections and balance needed between salt, water, protein, waste, minerals, blood and keeping healthy
- b) understand that there is a right amount for everything in your body and the kidneys are key in keeping this balance.

Possible activities include:

MY APPROACH

- 1. Where is this family at? (Stages of Change)
- 2. Acknowledge what the adolescents say and do.
- 3. Model attitudes, ways of approaching problems and behaviours towards others rather than telling them.
- 4. Ask questions to provoke thinking; describe pictures.
- 5. Guide, do not dictate. Youth want info so they can make their own decisions.
- 6. Be patient. Don't be discouraged if your first offers of support are turned down.
- 7. Give opportunities to use strategic thinking, reasoning and problem solving.
- 8. Let them do some evaluation and monitoring of their understanding.
- While your time is limited, try to give children and family time to think about the material and messages.

LEARNING SUPPORTS

Have you got the Learning Supports you might want to use?



- Your kidneys have a few important jobs in your body. Do you know one?
 - cleaning blood
 - making urine or getting rid of waste

The kidneys keep balance in our bodies. Staying in balance strengthens The Body Team.

There are a few key members of The Body Team – who do you think they are?

Did you know that your kidneys are really important for your brain? Your heart? Your bones? Your muscles? Your blood?

Your kidneys are connected to these other body parts and help keep them healthy. The work the kidneys do is connected to the health of your other body.

* Facilitator's Note: Extra learning if appropriate. The kidneys create a healthy environment for the other body parts.



2. There are Building blocks in your body.

"Building blocks" is a way to explain how the body uses different substances together to make our body tissues and organs work, become stronger and healthier.

The building blocks for each body system are different.

The Body Team members work with these Building Blocks to keep your body healthy.

Can you remember some of the Body Team Members?

- blood
- brain
- kidney twins
- muscle
- heart
- bone



3. We know that the kidneys make urine. What's in our urine? Any ideas?

The things our body does not need are in our urine.

The kidneys know what needs to be recycled and what needs to be put in the waste. They know the right balance of water, minerals and salt.



- 4. Each Body Team Member gets certain Building Blocks from the kidneys.
 - * Facilitators Note: Extra learning if appropriate: The building blocks for each body system are different. For example, the bones use the calcium, phosphate and vitamin D building blocks. Muscles need the right amount of protein, potassium, calcium and energy building blocks.

Activity: matching exercise

BALANCE



5. The kidneys are really smart organs in our body.

They know the right balance of these Building Blocks to keep different parts of our body strong and healthy.



6. If our kidneys are not so healthy, they have a really hard time doing their jobs in the body.

Do you have some ideas about how to keep your kidneys healthy?

- eating the right foods
- staying active
- taking medicines as the Doctor prescribes



7. Any questions about balance and your kidneys?

Review Parent and Caregiver Resource.











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.

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