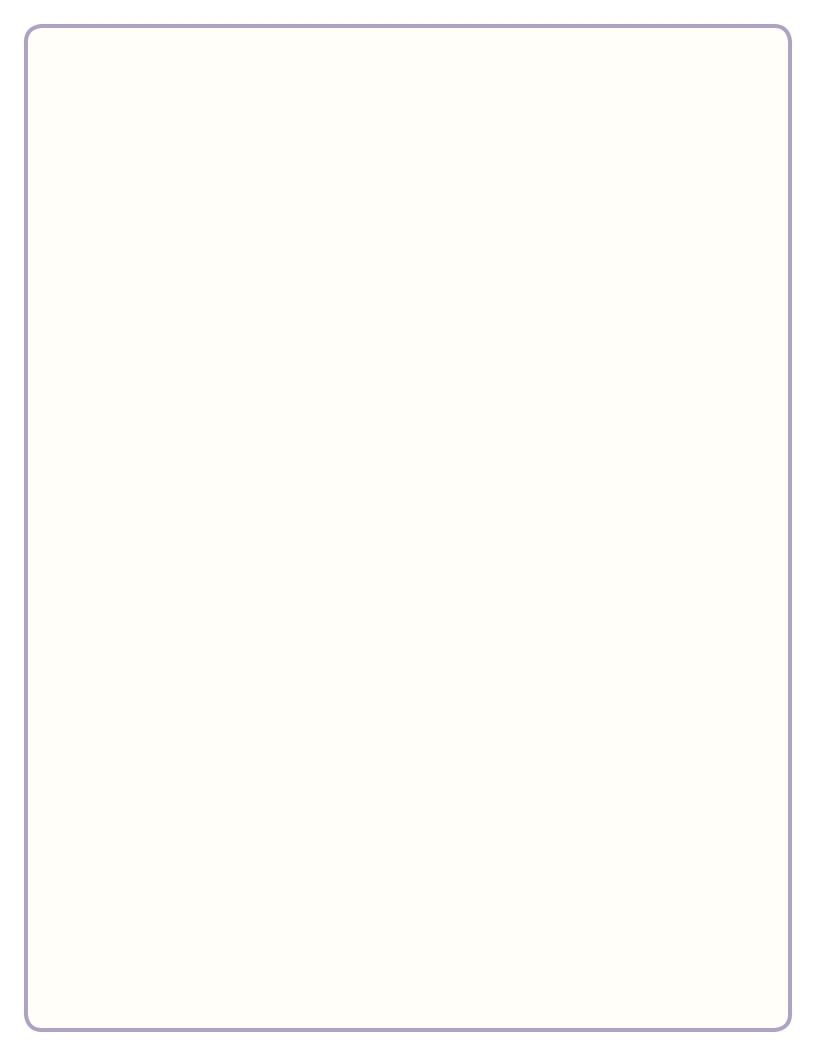


BLOOD PRESSURE

FACILITATOR RESOURCE



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







10. GLOBAL LEARNING OBJECTIVES

By the end of this session, the children and their family will be able to state that:

- the right amount of blood pressure keeps your heart, brain and kidneys healthy
- kidneys control blood pressure
- medicine, diet and exercise affect blood pressure

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 age-appropriate, 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:

Angela Chotka, MA Julie Strong, BN Tom Blydt-Hansen, MD Diane McKenty, RN

DEVELOPMENTAL LEVEL OBJECTIVES

By the end of this session:

The Pre-School Age Child will be able to:

a) recognize getting a blood pressure check / testb) sit quietly for blood pressure check / test

Possible activities include: showing cuff etc; putting cuff on self / doll;

The School Age Child will be able to:

- a) know the 4 key ingredients for your personal healthy blood pressure: eating real food, regular intense physical activity, the right amount of salt and sometimes medicine
- b) know that the right amount of blood pressure is good for heart, brain and kidneys
- c) having your blood pressure checked helps you know if your BP is healthy

Possible activities include: putting cuff on self / doll;

The Adolescent will know School Age objectives and be able to:

- a) understand that kidneys control blood pressure
- b) understand that everyday decisions about food, physical activity, salt and medicine affect your blood pressure and the kidneys' ability to do one of their key jobs: regulate blood pressure
- c) recognize how one would feel with too high or too low blood pressure and that there may be no symptoms

Possible activities include:

The Parents and Caregivers will:

- a) will facilitate pre-school age child's blood pressure check: practice sitting quietly and working up to 5 minutes
- b) understand their responsibility to provide healthy choices about eating real food and drinks, watching the amount of salt in the food and physical activity
- c) understand their responsibility to supervise taking the medications needed to keep a healthy blood pressure

KEY MESSAGES

- 1. Diet management to achieve healthy Na intake is the first step in blood pressure control. It is continues to be important if patients require medication.
- 2. In addition to Na control, increasing dietary content of fruits, vegetables and fibre will benefit blood pressure control. In the setting of obesity, caloric restriction with a goal of weight reduction through healthy eating patterns and food choices is needed.
- 3. Cardiovascular fitness and high-intensity exercise are strongly promoted as a means to improve BP control and cardiovascular health and wellness, except where specifically contraindicated.
- 4. BP medications are used in combination with diet interventions, to achieve specific goals. Some are diuretic (induce Na loss) and others are vasodilatory in their action.
- 5. ACE-inhibitors and angiotensin receptor-blockers (ARB) are preferred in most cases because of their impact on delaying kidney disease progression.
- 6. In more severe cases, additional interventions such as nephrectomy or dialysis are needed to control blood pressure.
- 7. Monitoring casual resting blood pressure (manual) is the primary screening and monitoring tool to assess blood pressure control and response to treatment.
- 8. Ambulatory blood pressure monitoring is used to identify silent hypertension, to confirm the diagnosis of suspected hypertension and for periodic monitoring of treatment efficacy to optimize control.
- 9. There are strict standards for proper manual measurement of blood pressure that must be applied at all times.
- 10. The kidneys have a primary role in regulating Na balance (renin/angiotensin system) and contribute therefore to blood pressure control. People with kidney failure have a diminished capacity to excrete Na and control blood pressure.
- 11. Primary kidney disease or systemic disease may also be responsible for blood vessel constriction, which may require a different treatment approach from patients whose blood pressure is primarily due to excess Na.
- 12. Specialized testing or imaging studies may be required to define the exact cause of hypertension in some patients.
- 13. Normal blood pressure is essential for end-organ perfusion and health, especially cardiac and vascular health.
- 14. Cardiac imaging (e.g. echo) can provide evidence of end-organ damage related to insufficiently controlled hypertension like left ventricular hypertrophy.
- 15. Inability to achieve targets for BP control can result in cardiomyopathy, retinopathy, CKD progression and vasculopathy (e.g. stroke).
- 16. There are specific symptoms associated with hypertension, especially for rapid elevations in blood pressure from previous. Awareness of these signs and symptoms is important for routine patient assessment.

TARGETS FOR FACILITATORS TO BE AWARE OF

- 1. Clinical practice guidelines prescribe specific targets for BP control.
- 2. Normal parameters for BP based on Ht/Wt/Age and Gender –there are different parameters for 24 hour monitoring vs spot testing.
- 3. Echocardiography is used to identify left ventricular hypertrophy.
- 4. Retinal screening identifies retinopathy.
- 5. The dietitian may be consulted to provide additional detail on Na intake and other dietary interventions.

PRE-SCHOOL LEARNING



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.
- 7. While your time is limited, try to give children and family time to think about the material and messages.

PRE-SCHOOL LEARNING OBJECTIVES

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

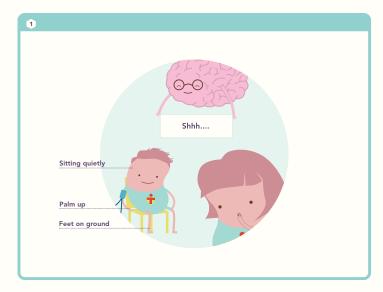
The Pre-School Age Child will be able to:

- a) recognize getting a blood pressure check / test
- b) sit quietly for blood pressure check / test

Possible activities include: showing cuff etc; putting cuff on self / doll;

LEARNING SUPPORTS

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



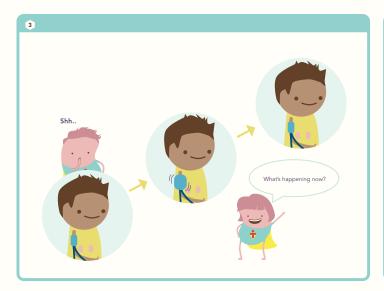


- Look at the Kidney Twins today. What are they doing?
 what do you see in the picture?
 - sitting
 - having a check
 - not saying anything (usually they are telling us something)

The Kidney Twins are sitting quietly. They aren't talking. This is what we need when we check your blood pressure.

2. The Kidney Twins are having a blood pressure check.

We put a cuff on your right arm. Would you like to try? (child can touch cuff, put on parent's arm, dolls arm etc)





3. The cuff squeezes your arm tightly for a few seconds. Then the cuff slowly gets looser and looser.

The nurse will be listening really carefully while we have the cuff on your arm.

Can you squeeze your parent's or caregiver's arm? The cuff will squeeze then it will get loose again.

Your job is to sit quietly while we check your blood pressure.

4. That's it! That's how we check your blood pressure.

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) know the 4 key ingredients for your personal healthy blood pressure: eating real food, regular intense physical activity, the right amount of salt and sometimes medicine
- b) know that the right amount of blood pressure is good for heart, brain and kidneys
- c) having your blood pressure checked helps you know if your BP is healthy

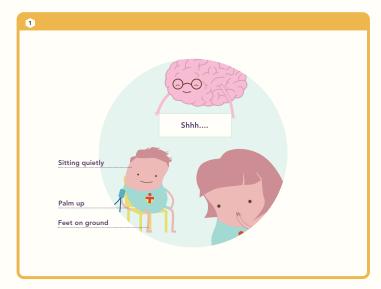
Possible activities include: putting cuff on self / doll;

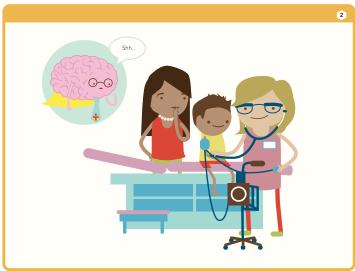
MY APPROACH

- 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; ask children to 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? Copy of Activity sheet;





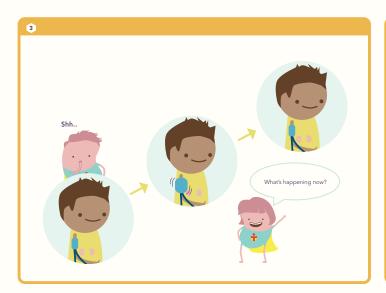
- 1. What do you see in this picture?
 - Kidney Twins
 - something on his arm
 - they are sitting
 - they are not talking

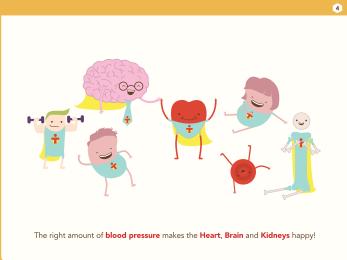
Today we are going to talk about your blood pressure.

We can see the Kidney Twins getting their blood pressure checked. We want to make sure you have healthy blood pressure.

Your job is to sit still and not talk while we take your blood pressure. The nurse who does the blood pressure check will help you sit properly.

Do you think you can do that?





 My job is to put the cuff on your right arm and listen very carefully. The cuff will squeeze your arm tightly for a few seconds and then it will get looser and looser.

Can you remember what your job is?

- to sit still
- to be quiet

Can you guess your mom or dad's job?

- to help you sit still
- to help you be quiet

4. The right amount of blood pressure is good for our heart, brain and kidneys.





5. Look at these pictures.

There are 4 main ingredients to keep our blood pressure healthy.

Can you guess what the ingredients might be?

- eating real food
- being active / physical activity
- the right amount of salt
- medicine

We talk a lot about eating healthy foods, don't we?
 That's because our body needs the nutrients from
 Whole Foods. Our bones need nutrients from Whole Foods too.

Do you remember what Whole Foods are?

Whole Foods come from plants and animals. These types of food are:

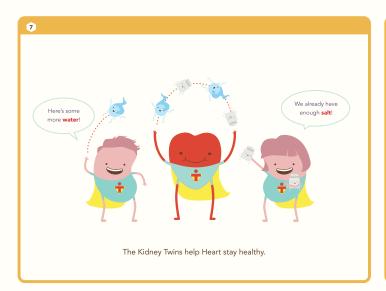
vegetables • fruit • hamburger • nuts • seeds • eggs milk • blueberries • fish • game meat (deer, elk, moose)

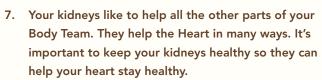
If we think about food made at home with ingredients that are fresh, these are foods to choose first.

home made soup • home made chicken fingers and fries home made pizza • home made tacos • home made pasta sauce • grilled cheese sandwich using brick cheese

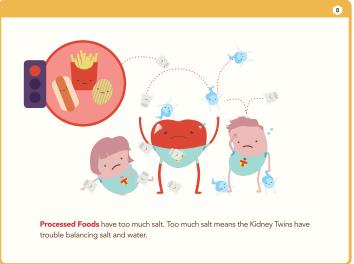
* Facilitator Note: "Whole Food" is food from plants and animals with lots of different nutrients our bodies need. Nutrients are ingredients our bodies need. We have to give our body foods that help it be strong so we can do all the things we want to do.

Optional: May be the time to begin discussion with parent / caregiver around what they have available in the home. Emphasize that our bodies need foods with more nutrients (lots of different ingredients our bodies need) which comes primarily from Whole foods.





Optional learning: Your kidneys help keep the right balance of salt and water for your heart.



8. If we eat a lot more salt than our body needs, then our kidneys have trouble keeping balance.

Besides eating healthily, your doctor will tell you if you need to change the amount of salt you need.

We talked before about putting foods in groups. Do you remember the groups? Green / Yellow / Red.

Green Foods are like the green traffic light – go! Choose these foods first.

Foods in the yellow group are like the yellow traffic light – slow down. These are processed foods. And Red Foods are ... junk foods. These are foods to avoid.

If your body is having trouble balancing salt and water, some different foods might become Red foods.





9. Processed food often has too much salt.

There's a right amount of salt for your body. Your kidneys know the right balance of salt for your body.

Processed Foods are Yellow or Sometimes Foods. When we see a Yellow light, what do we do? Slow Down.

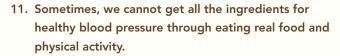
10. Physical activity is an important ingredient for our recipe for healthy blood pressure.

Can you tell me something you like to do where you are moving your arms and legs, your face gets red and you breathe fast?

If not, what could you try doing?

To parent: eventually we want to be doing 60 minutes of intense exercise every day. This can be something the whole family can do together.





Sometimes we have to take medicines to help our body. Sometimes the kidneys need help to control the amount of salt. You might need medicines.



12. We check your blood pressure often because we want to make sure you have a healthy blood pressure.

How can you help yourself have a healthy blood pressure?

UP NEXT: ADOLESCENT LEVEL

ADOLESCENT LEARNING



ADOLESCENT LEARNING OBJECTIVES

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

The Adolescent will know School Age objectives and be able to:

- a) understand that kidneys control blood pressure
- b) understand that everyday decisions about food, physical activity, salt and medicine affect your blood pressure and the kidneys' ability to do one of their key jobs: regulate blood pressure
- c) recognize how one would feel with too high or too low blood pressure and that there may be no symptoms

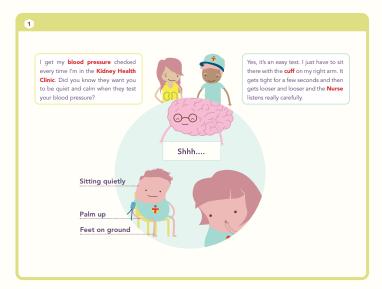
Possible activities include:

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.
- 9. While your time is limited, try not 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? Copy of activity sheet



 Your job is to be quiet and calm during the blood pressure test. You need to have your feet on the floor and sit quietly for five minutes before the test.

The nurse who does the blood pressure check will help you sit properly.

The nurse's job is to put the cuff on your right arm and listen very carefully. The cuff will squeeze your arm tightly for a few seconds and then it will get looser and looser.

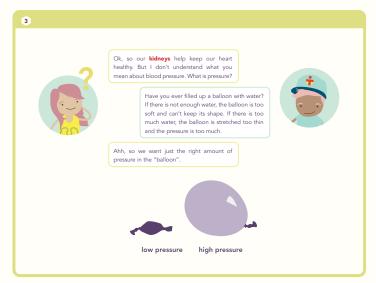
* Facilitator Note: remind patients to avoid caffeinated beverages (coffee, energy drinks) before coming to clinic to get their blood pressure checked.

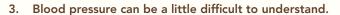


Yes, the kidneys are much smarter than we think. Your kidneys quietly influence many things about how your body works.

Your kidneys know the right balance of salt and water needed to keep your heart healthy. Your kidneys also make special chemicals to help balance blood pressure.

We use the word "control" to talk about balancing your blood pressure. Your kidneys play a key role in controling blood pressure.





Review metaphor with adolescent and parents.

The water is pushing against the sides of the balloon. If there is not enough water, what happens?

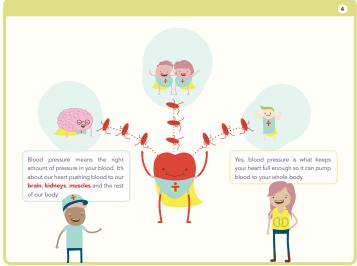
The balloon is soft and sort of floppy.

If there is too much water, what happens?

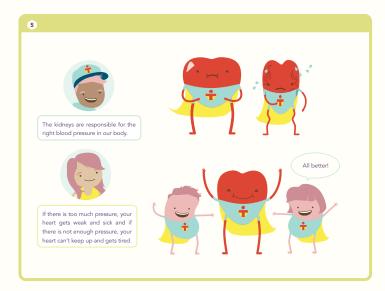
The balloon is stretched thin and becomes kind of hard.

If the water balloon metaphor does not seem to be working, could try:

A hose: when you turn on the tap to the hose, if it is only turned on a little, the hose is limp; if it is turned on too much, the hose becomes firmer and harder to bend.



- Blood pressure means the right amount of pressure in your blood. It's about our heart pushing blood to our brain, kidneys, muscles and the rest of our body.
 - * Facilitator Note: Perfusion is the extra concept beyond BP content in Connections module





5. Sometimes we don't feel it but if our blood pressure is too high or too low, it can be hurting our body.

If blood pressure is too low, the heart is working really fast to try and pump the blood throughout our body.

If the blood pressure is too high, the heart has to slow down and has a hard time pushing the blood through our body. 6. Have you got any ideas on how you can make your blood pressure healthy?

Possibilities:

- eating Whole Foods
- being active regularly
- eating the right amount of salt for your body
- sometimes taking medicines



- Looking at the pictures, you can see that we can keep our blood pressure healthy by:
 - eating real food as much as you can;
 - regular intense physical activity
 - having the right amount of salt for your body.



We talk a lot about eating healthy foods, don't we?
 That's because our body needs the nutrients from
 Whole Foods. Our bones need nutrients from Whole Foods too.

Do you remember what Whole Foods are?

Whole Foods come from plants and animals. These types of food are:

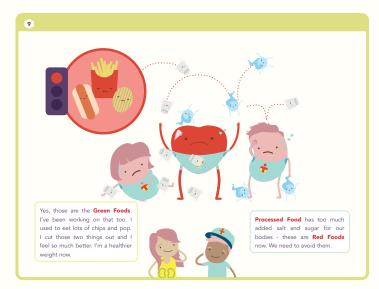
vegetables • fruit • hamburger • nuts • seeds • eggs milk • blueberries • fish • game meat (deer, elk, moose)

If we think about food made at home with ingredients that are fresh, these are foods to choose first.

home made soup • home made chicken fingers and fries home made pizza • home made tacos • home made pasta sauce • grilled cheese sandwich using brick cheese

* Facilitator Note: "Whole Food" is food from plants and animals with lots of different nutrients our bodies need. Nutrients are ingredients our bodies need. We have to give our body foods that help it be strong so we can do all the things we want to do.

Optional: May be the time to begin discussion with parent / caregiver around what they have available in the home. Emphasize that our bodies need foods with more nutrients (lots of different ingredients our bodies need) which comes primarily from Whole foods.



9. Processed foods have too much added salt. It is too hard for our kidneys to balance the salt and water.

If your doctor asks you to control how much salt you eat, processed foods have moved from the Yellow Group to the Red Group. You have to try to avoid them.

(link to Healthy Eating module)



- 10. There are natural ways to flavour foods without salt:
 - steasonings and herbs without added salt are good.
 - seasonings made with potassium are generally to be avoided.
 - flavoured vinegars

Can help set up meeting with Dietitian for more help if adolescent / parent would like.



11. We need exercise to keep our blood pressure healthy. We should try to do some exercise every day that makes us breathe hard and makes our face go red. Do you do anything like that? The goal is 60 minutes of this kind of activity every day.

Have a conversation regarding starting or increasing physical activity – in school or home life.

* Facilitator Note: Ask parents and child to rate their activity now. Make a note and set a goal for the exercise. Ask parent / caregiver how they could support their child in trying to exercise regularly.



12. Sometimes, we cannot get all the ingredients for our healthy blood pressure we need through the food, the right amount of salt and physical activity. Sometimes we have to take pills.

But there is no pill for physical activity! That is something we have to do.

Optional: may want to use opportunity to talk about medicine adherence strategies





13. Review signs to watch for in case of trouble with blood pressure.

Ensure that adolescent and parents know to contact the Kidney Health Team or their regular doctor or health care clinic/ team if they notice any of these signs.

14. To check your blood pressure over a longer period of time, we do a test called an ABPM or ambulatory blood pressure monitor.

This test checks your blood pressure over a 24 hour period so we can see how your blood pressure changes while you are awake and doing things during the day and while you are sleeping.

* Facilitator's Note: There's an informational pamphlet for ABPM.

Remind the family this is a scheduled test.



15. To check your blood pressure over a longer period of time, we do a test called an ABPM or ambulatory blood pressure monitor.

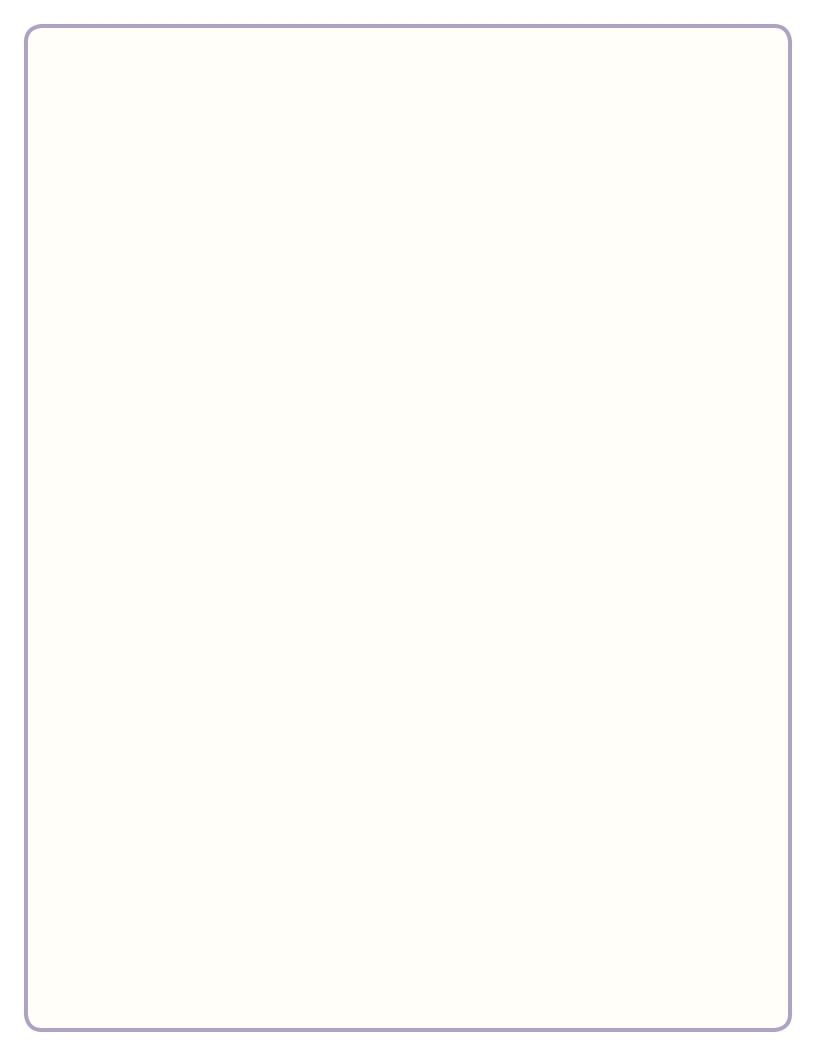
This test checks your blood pressure over a 24 hour period so we can see how your blood pressure changes while you are awake and doing things during the day and while you are sleeping.

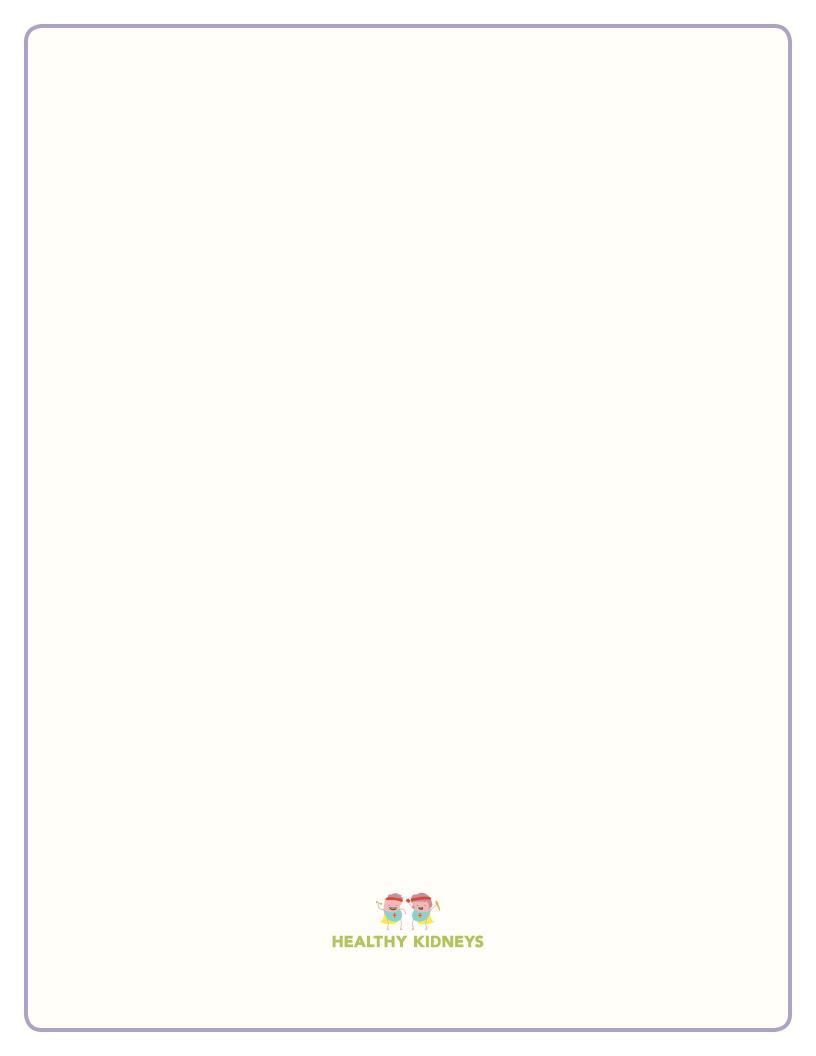
* Facilitator's Note: There's an informational pamphlet for ABPM.

Remind the family this is a scheduled test.



ADDITIONAL NOTES













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