Healthy Curiosity Activity Book

Hôpital St-Boniface Hospital

RECHERCHE • RESEARCH

Youth BIOLab Jeunesse
Welcome!

Over 200 scientists work at the St. Boniface Hospital Albrechtsen Research Centre!

We are all very curious people who study how the body works and figure out what happens when people get sick. Follow along with heart, brain, and grapes as they help us walk through the activities and learn about the body!

ICS
The Institute of Cardiovascular Sciences studies diseases of the heart like heart attacks and heart failure.

DND
The Division of Neurodegenerative Disorders studies diseases of the brain and nerves like Alzheimer’s disease and diabetes.

CCARM
The Canadian Centre for Agri-Food Research in Health and Medicine studies foods that can be really good for your health. They want to know how special foods work in diseases like diabetes, heart disease and obesity.

YBL
The Youth BIOLab’s job is to share what we learn with people like you!
Draw yourself as a scientist!

You will meet many scientists in this book and you will see that they come in all shapes, sizes, and ages. There is just one scientist missing – YOU!

*Draw yourself as a scientist, throw on your lab coat and safety goggles, and get ready to learn about health and disease!*
Your circulatory system pumps blood around your body to deliver oxygen and nutrients to your cells.

A scientist’s job is to learn as much as they can about the body! Your body has many organ systems that work together to help you do all of the amazing things you can do!

On this page, colour some of the different systems our scientists study.

- Our body is made of tiny microscopic living cells
- Your body is trillions of cells
- An organ is billions of cells
- A pinch of skin is millions of cells
- Your heart beats 100,000 times per day
- You have around 5 litres of blood inside you
- You have over 100,000 km of arteries, veins and capillaries to carry your blood

Circulatory and Respiratory System

Trachea (Light Pink)
Heart (Red)
Lungs (Dark Pink)
Arteries (Red)
Veins (Blue)
Your nervous system sends messages around your body.

Your digestive system breaks your food down into nutrients that your cells can use.

Our brain uses more energy than any other organ.

Your brain has billions of nerve cells or neurons.

Those neurons have over 1,000,000,000,000,000 (a quadrillion) connections.

Brain (Pink)

Spinal Cord (Green)

Esophagus (Red)

Liver (Brown)

Stomach (Pink)

Intestines (Purple)

Nerves (Yellow)

Your stomach contains acid to break down the food you eat.

You have over seven and a half metres of intestines that absorb nutrients for you.

Your intestines are home to trillions of bacteria that help you digest food.
Meet our scientists!
What are they learning about?

Hi, I’m Lorrie. Our labs are curious about cardiovascular diseases! We study heart cells to find genes that contribute to heart disease, why strokes and heart attacks happen, and why atherosclerosis and cardiac fibrosis are such big problems!

Hi, I’m Paul. Our labs are very interested in neurodegenerative disorders! We want to know how to treat diabetic neuropathy in people with diabetes and we want to know why memory diseases like Alzheimer’s disease happen and what we can do to treat people all over the world!

Hi! I’m Carla, and I work with a lot of curious people! Our group wants to know if the things in nutritional Manitoba-grown foods can act like therapeutics for things like cardiovascular diseases, Alzheimer’s disease, obesity, diabetes, and even inflammation!
What do these science words mean?

You probably noticed that scientists use big words when they talk about the work that they do! Help decode what Lorrie, Paul, and Carla are talking about!

*Fit the bolded words from the previous page into the crossword below. Once you’ve fit in all of the words, match the numbers to the definitions below to find out what those big words mean!*

**Across**
1. Damage from when blood can’t get to the heart muscle
3. Memory loss disease
6. Describing the condition in the heart and blood vessels (arteries and veins)
7. Healthy, full of nutrients
9. Disease where the body can’t process sugar properly
12. Hardening of the arteries
13. Nerve breakdown
14. Excess fat in the body

**Down**
2. Medicine and treatments
4. Swelling as part of injury or disease
5. Stiffening of the heart
8. Nerve damage from diabetes
10. Damage from when blood can’t get to the brain
11. DNA instructions for your cells
15. The smallest living building blocks of the body
Looking closer to see how the body works!

We have many body systems and organs! Each organ does a different job.

Let's colour some and learn how they work.

I'm the brain! I control thinking, memory, movement, and senses!

I'm the heart! I pump blood to all the parts of the body!

We're the lungs! We bring oxygen into the body!

We're the intestines! We digest foods to nourish the body!
Let’s zoom in!
Watch for the microscope! It means you are zoomed in on what you are seeing, like the tissues and cells on this page!

- **Nervous Tissue**
  - Organs can be made of very different looking tissues.

- **Heart Muscle Tissue**
  - I’m a heart muscle cell! When I contract, the heart beats!
  - I’m a fibroblast! I stick everything together.

- **Lung Tissue**
  - We’re lung cells! We pass oxygen to the red blood cells.
  - I’m a red blood cell! I carry oxygen to the whole body!

- **Digestive Tissue**
  - We’re intestinal cells! We pass the nutrients from your food into your blood!
  - You have over 200 different kinds of cells doing different tasks!

- **Nervous Tissue**
  - We’re brain cells called neurons. We send and receive messages!

- **Heart Muscle Tissue**
  - I’m a heart muscle cell! When I contract, the heart beats!

- **Lung Tissue**
  - We’re lung cells! We pass oxygen to the red blood cells.

- **Digestive Tissue**
  - We’re intestinal cells! We pass the nutrients from your food into your blood!
Sometimes, developing habits like cigarette smoking, inactivity, poor sleep, and eating less nutritious meals can affect heart health.
A heart attack causes sudden intense pain or pressure in the chest when heart muscle cells don't get the oxygen they need.

After a heart attack, muscle cells start to weaken and die. As they disappear, fibroblasts fill the empty space with sticky gluey proteins to make a patch that we call a scar. With less muscle to do all the work, the heart gets tired easily.
Help the red blood cell find its way!

This red blood cell came back from a long trip through the body! After meeting up in the right side of the heart, the blood cells head to the lungs to pick up oxygen. When they’re full of oxygen, they come back to the left side of the heart to get pumped out to the whole body!

Help the red blood cell travel through the heart and colour the areas with oxygenated blood, red (4, 5, 6) and the areas with deoxygenated blood, blue (1, 2, 3)!
Artery Maze

Help get blood to the brain, hand, kidney, and lungs! Make sure to avoid plaques or else you’ll get stuck!

Arteries are stretchy tubes that bring oxygen rich blood from our heart to all of the cells in our body! Smoking, low physical activity, poor diet, and stress can make tough sticky plaques build up on the inside of the arteries making it hard for blood to get through! Eventually, when the arteries become very stiff and blocked by these plaques, doctors call the condition atherosclerosis.
Choose some heart-healthy foods!

Jeff and his friend Thomas are trying to plan a heart-healthy dinner together.

Help them choose their dinner by colouring 5 items for them to eat and drink!

After dinner, Thomas and Jeff would like to do some fun activities that are also healthy for their heart.

Help them decide what to do by drawing 2 activities that will get their hearts pumping!
People say exercise is good for the heart, but which exercises are the best? We need your help, young scientist, to find out which exercise gives your heart the best workout!

Scientists often measure heart rate in **beats per minute** (BPM). Since we can’t **see** how fast our heart is beating, you’ll have to **feel** a pulse. Your pulse tells you how fast your heart is beating!

The pulse in your neck is easy to find. Use two fingers and press them on the soft area next to the trachea where your neck and head meet (see arrows).

*Keep your fingers pressed on one spot for a few seconds*. Can you feel your pulse pressing back against your fingers with each heart beat?

*Try moving your fingers around that area to find the right spot!*

To conduct this experiment, you will need:
- Timer or clock
- Pen or pencil
- Calculator

1. Choose some activities to do and write them in your table. *Pick your favorite activities or some you would like to try!*

2. Before doing an activity, measure your resting BPM. Set a timer for 30 seconds and count how many beats you feel in that time. Multiply the beats in 30 seconds by 2 and you have BPM!

3. Set your timer for 1 minute and start exercising with your chosen activity.

4. Measure your BPM right after the activity. *To measure BPM, follow instructions in step 2.*

5. Calculate your change in BPM. *To find the change in BPM, take your BPM after the activity and subtract your resting BPM.*

6. Take a 2 minute rest and repeat steps 2-5 for the rest of your activities!

<table>
<thead>
<tr>
<th>Activity</th>
<th>Resting BPM/BPM before activity</th>
<th>BPM after activity</th>
<th>Change in BPM (BPM after - BPM before)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>____ x 2 =</td>
<td>____ x 2 =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>____ x 2 =</td>
<td>____ x 2 =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>____ x 2 =</td>
<td>____ x 2 =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>____ x 2 =</td>
<td>____ x 2 =</td>
<td></td>
</tr>
</tbody>
</table>

Was there a change in BPM after each exercise?

Do you think there would be a bigger change in BPM if you exercised for longer?

Which exercise gave your heart the best workout?
Your brain does many jobs, from problem solving, helping you move and think, to learning new things. Young brains are the fastest learners!

Active brains are healthy brains! The more time you spend learning new things and using your brain, the healthier your brain stays as you get older! Visiting with friends and family is a big help too!

The brain has some natural ways to stay healthy; a protective skull, extra cushioning, and good blood flow for air and nutrients.

Scientists think that injuries, illness, and lifestyle choices that affect the brain while you’re young, might lead to problems later in life.

We need to understand how healthy brains and their cells work to know how to fix them when they get sick.

Dr. Ben Albens
Synaptic Plasticity and Collaterals

I send messages as electric zaps along my tail and little chemicals get released to the next cell.

I receive chemical messages from my friend, now I pass the message along!
Sometimes as brains get much older they begin to forget things. Doctors and scientists still don’t know what causes these problems but we call this type of memory loss Alzheimer’s disease.

Like most diseases, we can see changes happening in the cells. If we look at brain cells of people with Alzheimer’s disease, they are knotted and tangled and there are blobs in between them stopping messages. If the message is blocked, the brain can’t use those memories anymore.

Memory loss can get worse over the years. Sometimes Alzheimer’s patients can become very confused and frustrated, or lose interest in things they used to love. They might need help to do things like get dressed, find their way, and eat meals.

You can help keep your brain nice and healthy as you age by learning, protecting it with a helmet, and choosing healthy foods and activities!
Learning about the brain with colour by number!

Compare the normal brain and the brain with Alzheimer’s disease and see which areas are most affected.

You’ll see that each part of the brain has a number on it. Choose a colour for each part of the brain, colour it in, and find out what each part does!

1. Frontal Lobe
   Understands emotions and language, controls actions like problem solving and movement, and stores memories.

2. Parietal Lobe
   Processes information like taste, touch, temperature, and movement.

3. Occipital Lobe
   Processes vision and helps interpret depth, colour, and recognizing faces.

4. Cerebellum
   Controls movement, coordination, and balance.

5. Brain Stem
   Controls actions like heart beat, digestion, and breathing.

6. Hippocampus
   Helps make new memories, remembers where you are and how to find things.

7. Thalamus
   Sorts sensory information like vision, taste, touch, and balance.

8. Pituitary Gland
   Sends important messages called hormones to the body to tell it when to grow and change.

Alzheimer’s disease slowly breaks down connections between our neurons, which makes our neurons die and our brains shrink, especially in the cortex and hippocampus. This is what causes people with Alzheimer’s disease to forget things or act differently.
Send a message through the neurons!

In Alzheimer’s disease, our neurons (brain cells) begin to break down and die over time from a build-up of plaques and tangles.

**Plaques** are proteins that form blockages between the end of one neuron and beginning of the next neuron. This makes it hard for them to communicate.

**Tangles** are bad proteins that build up in and on your neurons. They make it hard for neurons to send messages down the axon to the next cell.

*Follow the tails of the neurons and see which neuron is responsible for each action!*

Which activities were blocked by the plaques and tangles from Alzheimer’s disease?

- Chatting with friends
- Remembering where you put your phone
- Reading your favourite book
- Recognizing your family members
- Remembering where you parked the car
- Playing the recorder
Choose some brain-healthy foods!

Dr. Miyoung Suh and her PhD student Chelsey Walchuk from the Nutrition and Neurological Diseases lab are trying to plan a brain-healthy dinner together.

Help them choose their dinner by colouring 5 items for them to eat!

[Drawings of vegetables and fruits are shown]

After dinner, Miyoung and Chelsey would like to do some fun activities that are also healthy for their brain.

Help them decide what to do by drawing 2 activities that will get their brains thinking!

- Spanish lessons
- Playing music
- Playing video games
- Doing a puzzle
- Painting
- Reading a book
- Chatting with friends
- Playing with lego
Test your memory with the memory game!

To keep your brain healthy, eat healthy foods, get enough sleep, and keep your brain active!

Test your memory and see what kinds of healthy foods science researchers study with the memory game below!

1. Colour the memory squares below and colour the puzzle on the back side of this page.
2. Cut the squares out, flip them face down and mix them up so you don’t know which is where!
3. Turn over any two pieces, if they match you get to keep them, if they don’t match, turn them back over and try again!
Puzzle Time!

We’re interested in finding out what foods might be good for our brains, our hearts, and our overall health! We are especially interested in studying the healthy foods that are locally grown in Manitoba.

*Colour in the collage of foods we study below, cut them out, and try to put the puzzle together!*

*Don’t forget to colour the front side of this page for the memory game!*
Find super healthy foods in this word search!

Search for some of the foods and diseases we research in the word search below!

Words can be spelled up, down, forwards, or backwards.

Nutrition
Beans
Lentils
Buckwheat
Lingonberry
Flaxseed

Canola
Obesity
Inflammation
Whole foods
Agriculture
Prebiotics

Antioxidants
Food guide
Functional foods
Medicine
Nutraceuticals
Cholesterol

Protein
Carbohydrates
Water
Vitamins
Minerals
Fatty acids
Decode the message about healthy foods!

Our food scientists are interested in what kinds of food might be really good for our health and how they might help fight disease!

*Decode the messages from our scientists for some health advice by using the decoding key!*

<table>
<thead>
<tr>
<th>A B C D E F G H I J K L M</th>
<th>🍎 🍒 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎</th>
<th>🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎 🍎</th>
</tr>
</thead>
<tbody>
<tr>
<td>N O P Q R S T U V W X Y Z</td>
<td>🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊</td>
<td>🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊 🍊</td>
</tr>
</tbody>
</table>

Switch out rice and potatoes for __ __ __ __ if you’re watching your __ __ __ __ __ __ __ __ !

_______ are rich in digestion resistant __ __ __ __ __ __ __ __ __ __ __ __, __ __ __ __ __, and __ __ __ __ __ __ __ and won’t cause a spike in __ __ __ __ __ __ __ __ __ __ __ __ __ __ after a meal!

________ is a chemical found in __ __ __ __ __ __ __ __ __ __ __ __, __ __ __ __ __ __, and other dark __ __ __ __ __ __ __ __ __ __ __ __.

________ can help decrease blood sugar levels in people with type II diabetes, and can even improve __ __ __ __ __ __, __ __ __ __ __ __, and __ __ __ health!

________, or low-bush cranberries, may be the next __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __
Let’s learn how much sugar we eat!

We need your help, young scientist, to find out how much sugar is in our favorite snacks and drinks!

Packaged foods come with a nutrition facts label that tells us important information about our food, like what a serving size is and how many nutrients are in these foods. When we look at the nutrient called carbohydrates or sugars, it comes in 3 forms!

1. **Fibre** is a sugar that we are not able to digest, but it helps food go through our digestive system!
2. **Complex sugars** or **starches** are big sugars that take us a long time to digest, so these sugars keep us fuller for longer!
3. **Simple sugars** are small and are easy for us to digest. They are able to give us energy quickly, but if we eat too much at once we might get a sugar high!

Today we want to focus on **simple sugars** or **added sugars**. This is the sugar we bake with, but did you know that we shouldn’t be eating more than 25-35 grams of added sugar a day? In our experiment, we’re going to measure the amount of simple sugars in our favorite snacks and drinks! Look for the word “sugar” on your nutrition facts label. **1 teaspoon of sugar is equal to 4 grams of sugar!**

### To conduct this experiment, you will need:

- Your favourite packaged foods
- Pen or pencil
- Teaspoon
- Sugar
- Bowl or plate

<table>
<thead>
<tr>
<th>Name of Food or Drink</th>
<th>Serving Size</th>
<th>Grams of Sugar</th>
<th>Teaspoons of Sugar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>÷4=</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>÷4=</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>÷4=</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>÷4=</td>
</tr>
</tbody>
</table>

Which of your favourite foods had the most sugar?

Were you surprised when you saw how many teaspoons of sugar are in these foods?

Did you already know the serving size of your favourite snack?
Decode the message

Switch out rice and potatoes for PEAS if you’re watching your BLOOD SUGAR! PEAS are rich in digestion resistant STARCHES, FIBRE, and PROTEIN, and won’t cause a spike in BLOOD SUGAR after a meal!

RESVERATROL is a chemical found in PEANUTS, GRAPES, and other dark BERRIES. RESVERATROL can help decrease blood sugar levels in people with type II diabetes, and can even improve HEART, LIVER, and EYE health!

LINGONBERRIES, or low-bush cranberries, may be the next SUPERFOOD! They have high levels of VITAMIN C, ANTIOXIDANTS, omega-3’s, and other yummy nutrients. We think LINGONBERRIES can help with cardiovascular disease, kidney disease, and even DIABETES!
Pay attention to how your foods and activities make you feel. Make choices that keep you feeling energized and well.

Try your best to get around 8 hours of sleep a night to keep your body happy and healthy!

I like to play sudoku and other puzzles to keep my brain sharp, how about you?

Get your heart pumping at least once a day! What is your favourite heart-pumping activity?

Try eating lots of dark beans like kidney beans and black beans to keep your blood vessels stretchy, strong, and healthy!

Eat Manitoba fish like pickerel, Arctic char, and whitefish. They are packed full of omega-3 fatty acids, which are great for your heart and brain!

Don’t smoke! It’s not good for your cells!

Thanks for joining us and learning about how the body works and learning about health and disease!

We hope you learned a lot of cool and interesting things! *Stay curious!*
The Youth BIOlab at the St. Boniface Hospital Albrechtsen Research Centre is a space for students and teachers to explore and experience real biomedical science in a world class research centre. We partner with the education community to promote health and science literacy in Manitoba youth.

The Healthy Curiosity Activity Book was developed during the 2020-21 school year when we were not able to work directly with students.

We are grateful for the contributions of our scientific colleagues at the Institute of Cardiovascular Sciences, the Division of Neurodegenerative Disorders and the Canadian Centre of Agri-Food Research in Health & Medicine, for sharing their work and being part of this project.

Thank you to Kyla Lamb, our graphic designer from Red River College for her creativity and design skills, Communications and Media Services at St. Boniface Hospital Research for their contributions, and to the St. Boniface Hospital Foundation for their ongoing funding support.

Stay Curious!