

Nutrition and Mental Wellness

Presented by Laurina Eskow, Community Nutrition Advisor
First Nations and Inuit Health Branch
Alberta Region
January 21, 2020



Background of Presenter



Objectives

- To understand the link between nutrition and mental wellness
- To understand how food choices and behaviors impact mental wellness
- To identify nutrition strategies to enhance personal mental wellness



Mental Wellness Definition

Mental wellness is a balance of the mental, physical, spiritual, and emotional. This balance is enriched as individuals have:

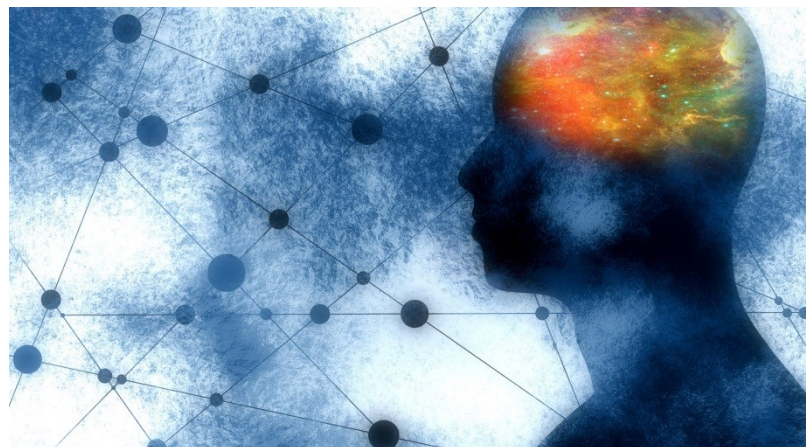
- **purpose** in their daily lives whether it is through education, employment, care giving activities, or cultural ways of being and doing;
- **hope** for their future and those of their families that is grounded in a sense of identity, unique Indigenous values, and having a belief in spirit;
- **a sense of belonging and connectedness** within their families, to community, and to culture;
- and finally **a sense of meaning** and an understanding of how their lives and those of their families and communities are part of creation and a rich history.

Link Between Nutrition and Mental Wellness



Mental illness in Canada

- 1 in 5 Canadians experiences a mental illness or addiction problem
- By 40 years of age, 1 in 2 have—or have had—a mental illness
- Mental illness is a leading cause of disability in Canada
- Mental illness can cut 10 to 20 years from a person's life expectancy
- The economic burden of mental illness in Canada is estimated at \$51 billion per year.



Healthy Eating in Canada

First Nations Food, Nutrition and Environment Study

Some Key Results For Participating First Nations in Alberta:

1. The diet of First Nations adults in Alberta does not meet nutrition needs, but the diet is healthier when traditional foods are eaten
2. Overweight/obesity, smoking, and diabetes are major public health issues
3. Household food insecurity is a major issue



Nutrition Recommendations FNFNES

- Choose more vegetables and fruit, including wild plants and berries
- Choose whole wheat grains more often. Make baked bannock with whole wheat flour.
- Choose milk and milk products (such as cheese or yogurt) or beverages fortified with calcium and vitamin D (such as soy beverages) more often
- Choose leaner meats, plus game and fish



Canada's Food Guide

Have plenty of
vegetables and fruits

Eat protein foods

Make water
your drink
of choice



Choose
whole grain
foods

Healthy eating is more than the foods you eat

**It is also about where, when,
why and how you eat**

- Be mindful of your eating habits
- Take time to eat
- Notice when you are hungry and when you are full
- Cook more often
- Plan what you eat
- Involve others in planning and preparing meals
- Culture and food traditions are part of healthy eating
- Enjoy meals with others



Mindful Eating

Developing awareness of experiences, physical cues, and feelings about food

- eating slowly, without distraction
- listening to physical hunger cues, eating only until full
- distinguishing between true hunger and non-hunger triggers for eating
- engaging senses by noticing colors, smells, sounds, textures, and flavors
- eating for overall health and well-being
- noticing effects food has on feelings
- appreciating your food

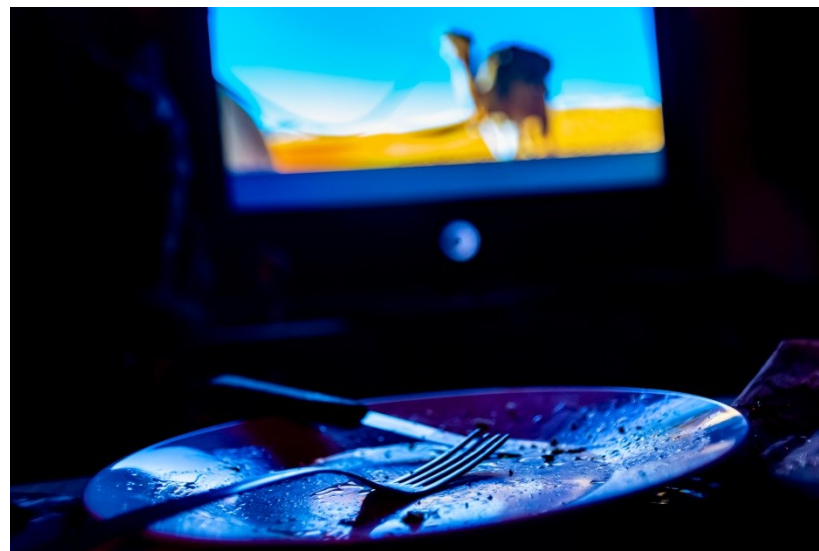


Distracted Eating

What is distracted eating?

- Eating while:
 - Watching TV
 - On computer
 - Driving
 - Looking at phone

**Distracted Eating =
Mindless Eating**

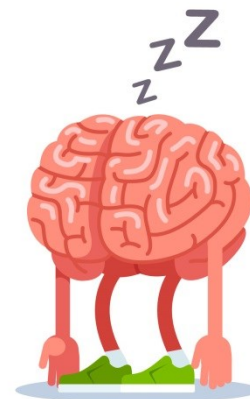


Why We Eat More When We're Tired

- Poor night's sleep / regular exhaustion leave us craving sugar, salt / deep fried foods. WHY?

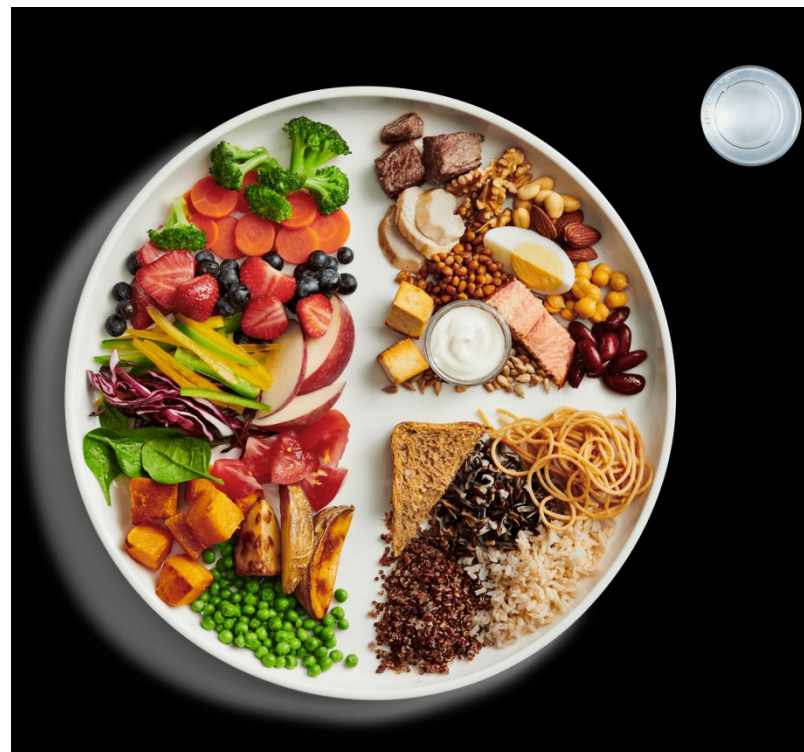
Hormones!

- When tired, higher levels of “Grehlin” our hunger hormone is released
- At the same time “Leptin” our hormone telling us we're full is lowered
- Our body is searching for quick and easy energy which come from carbohydrates
- Carbohydrates also encourage secretion of “Serotonin”, our feel good hormone



What Can a Human to Do?

- To answer our body's desperate desire for energy, we can choose complex carbohydrates
 - Take longer to digest
 - Fulfill hunger
 - Provide longer lasting energy
- **Examples:**
 - Protein: beans, milk, yogurt
 - Vegetables, fruit
 - Whole grains: oatmeal, whole wheat bread



Food - Fuel for your Brain and Body

- You need to feed your brain regularly with the right mix of nutrients for it to work properly
- Unlike other organs, your brain relies on a steady supply of glucose (ideally coming from starch carbohydrates) as its primary fuel
- Aim to eat little and often to keep your mood at its best



Canada's Food Guide

Have plenty of
vegetables and fruits

Eat protein foods



Make water
your drink
of choice

Water

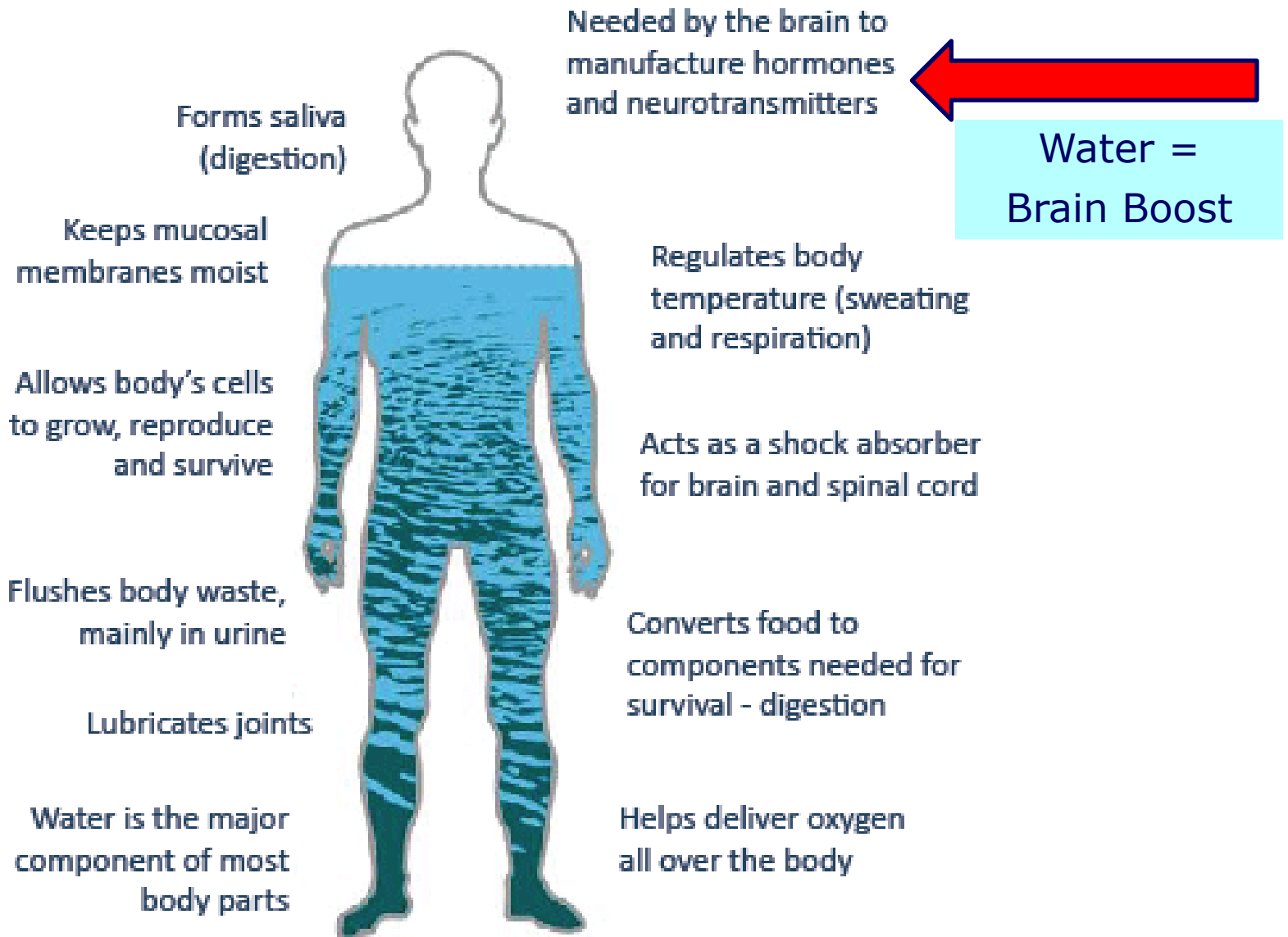


Nature's Beverage – Water

- Dehydration can make us feel tired when really we're just thirsty
- Make water your drink of choice
- Up to 60% of the human adult body is water
- Babies are born with 78%
- About 71% of the Earth's surface is water-covered



What Does Water do for You?



Feed Your Brain - Antioxidants

Antioxidants reduce cell damage and aging in our body including our brain

Examples of Antioxidants Rich Foods?

- Beta-carotene: apricots, broccoli, cantaloupe, carrots, peaches, pumpkin, spinach, sweet potato
- Vitamin C: blueberries, broccoli, grapefruit, kiwi, oranges, peppers, potatoes, strawberries, tomato
- Vitamin E: margarine, nuts and seeds, vegetable oils, wheat germ



Omega 3 Fatty Acids

Omega-3 fatty acids are important fats that you must get from the food you eat, as your body does not make them. They can help to improve cognitive function, and reduce risk of dementia.

- **Good sources:**
- Fatty fish (salmon, tuna, sardines, mackerel, trout, anchovy)
- Flaxseed, chia seeds
- Canola and soybean oils
- Nuts, especially walnuts



Feel Good Fish

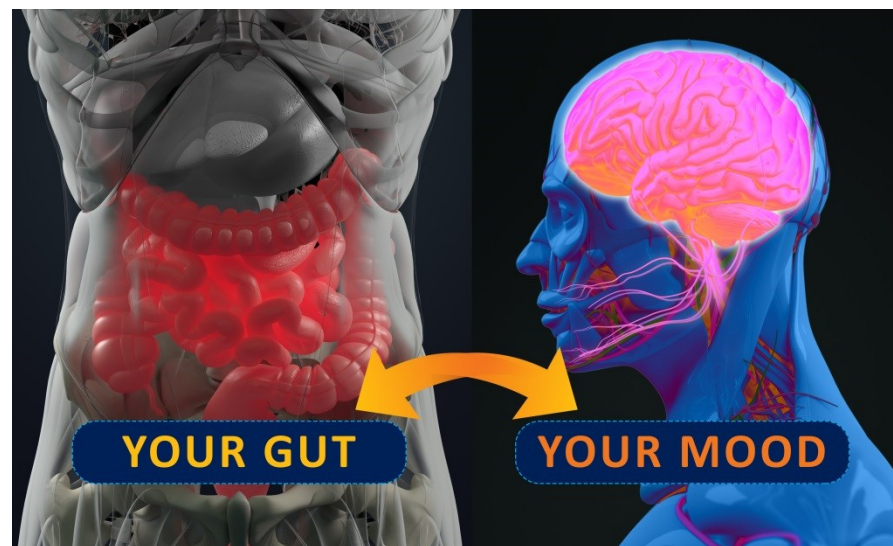
- Eating fatty fish (salmon, tuna, sardines, mackerel, trout, anchovy) 1 to 2 times a week is linked with a lower risk of depression
- Omega-3s (fish) help with serotonin (happy hormone) release



Can Foods Boost our Mood?

Yes they can!

- Serotonin is a natural chemical in the brain that can affect mood
- Serotonin is mostly made in the gut
- Eating foods that contain the essential amino acid known as **tryptophan** can help the body to produce more serotonin
- **Tryptophan rich foods include:**
 - nuts, seeds, tofu, cheese, red meat, chicken, turkey, fish, oats, beans, lentils, and eggs



Where do “Sometimes” Foods Fit?

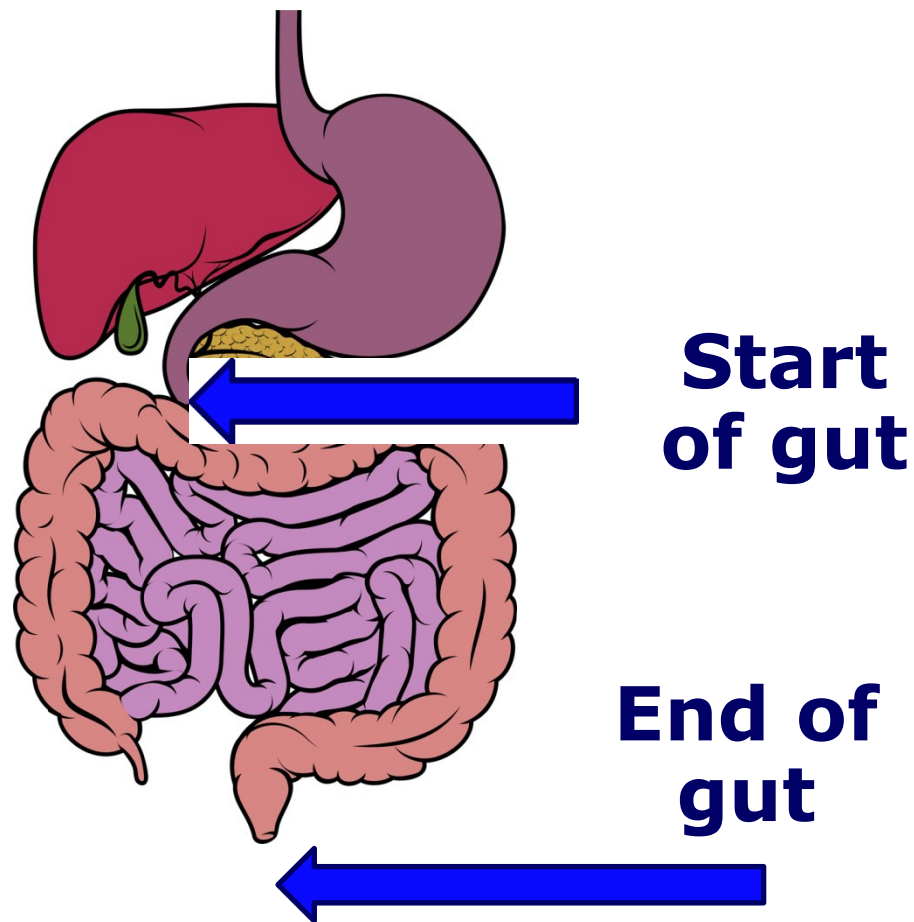
Can I ever eat foods not on Canada’s Food Guide?

- Yes, you’re human
- Choose to be a Wise Human
- Choose Sometimes foods for.... Sometimes
- Choose Life giving foods for....Life



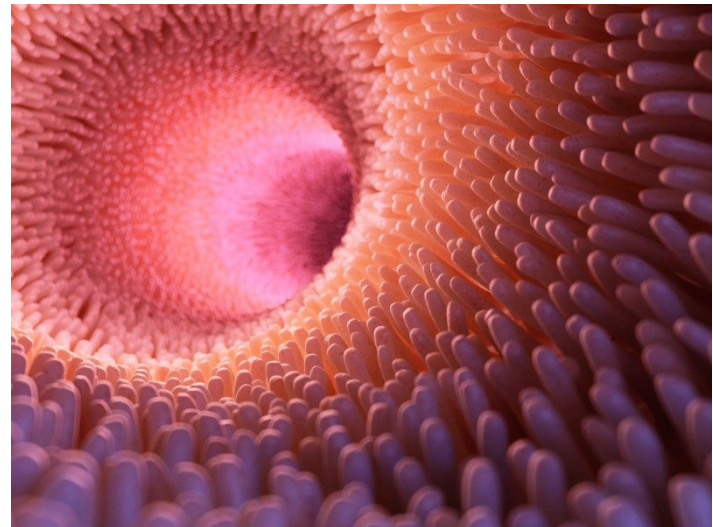
A Healthy Gut is a Happy Gut!

- Gut?
- Your gut is part of your digestive system — it's where food goes after you eat it, to get broken down into nutrients and waste
- The gut starts at the beginning of the small intestine and goes until the anus



Small Intestine

- The small intestine is about 6 m long and 3cm wide
- The inner wall of the small intestine is covered with millions of microscopic, finger-like projections called villi
- The villi are the vehicles through which nutrients can be absorbed into the blood
- The blood then brings these nutrients to the rest of the body



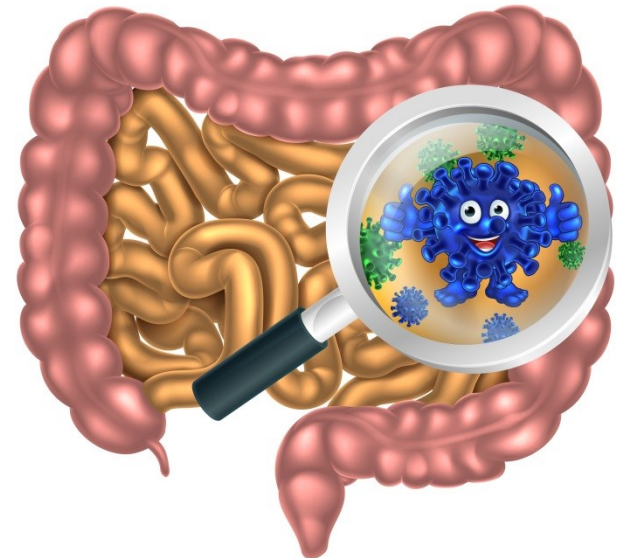
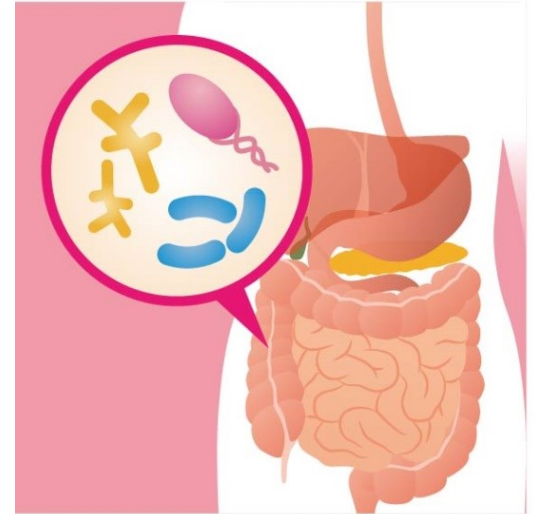
Large Intestine / Colon

- The large intestine is about 1.5m long and 5cm wide
- About 90% of the nutrients in digested food have been absorbed by the time it reaches the large intestine
- What does the large intestine do?
 - reabsorption of water and minerals (eg. sodium, chloride)
 - formation and temporary storage of feces
 - maintaining a resident population of over 500 species of bacteria
 - bacterial fermentation of indigestible materials



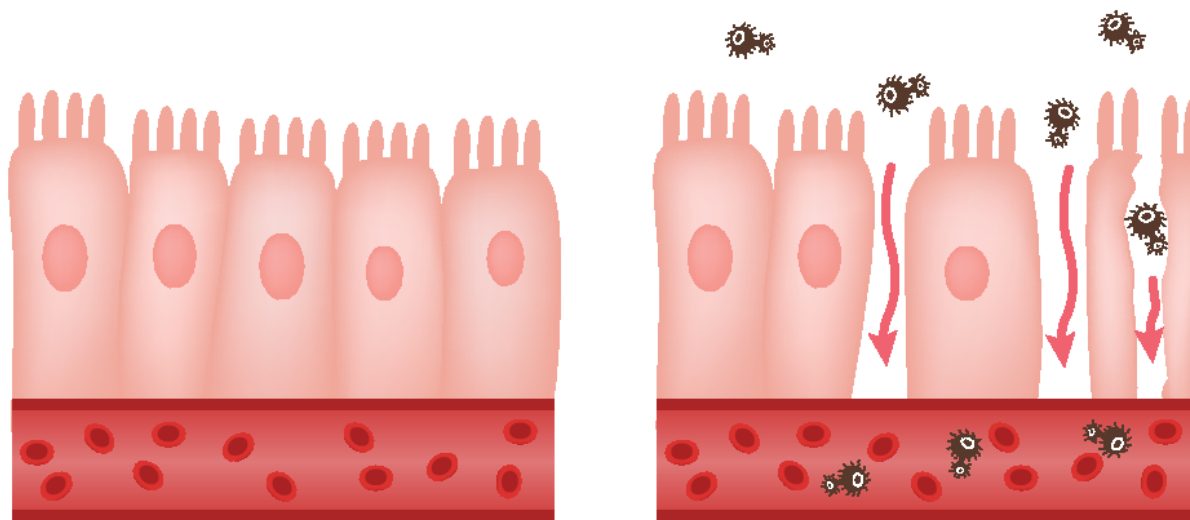
Magic is Happening in Your Gut!

- The Gut is often called your **“Second Brain”**
 - It is capable of directing messages to the brain
 - controlling the release of hormones that influence the movement of food down the gut
 - feelings of wellbeing
 - the sensations of being hungry or of being full.



What is a Leaky Gut?

- When bacteria and toxins are able to "leak" through the intestinal wall, causing inflammation and changes in the gut flora (normal bacteria) that could lead to problems within the digestive tract and beyond.



Normal Tight Junction

Leaky and Inflamed

How to Protect your Gut Wall

Prebiotics and Probiotics to the rescue!



Prebiotics

- Prebiotics are specialized plant fibers. They act like food / fertilizers to help healthy bacteria grow in the gut
- **Examples of prebiotics:**
 - Onions, leeks, garlic
 - Sweet potato, yam
 - Flax, chia, hemp, pumpkin seeds
 - Apples, bananas
 - Oats, whole wheat foods



**Choose More
Vegetables, Fruits
and Whole Grains**

Summary

- Eat whole foods from the land
- Choose a variety of colorful veggies and fruit
- Fibre is your gut's best friend
- Choose nature's beverage - water
- Remember mindful eating



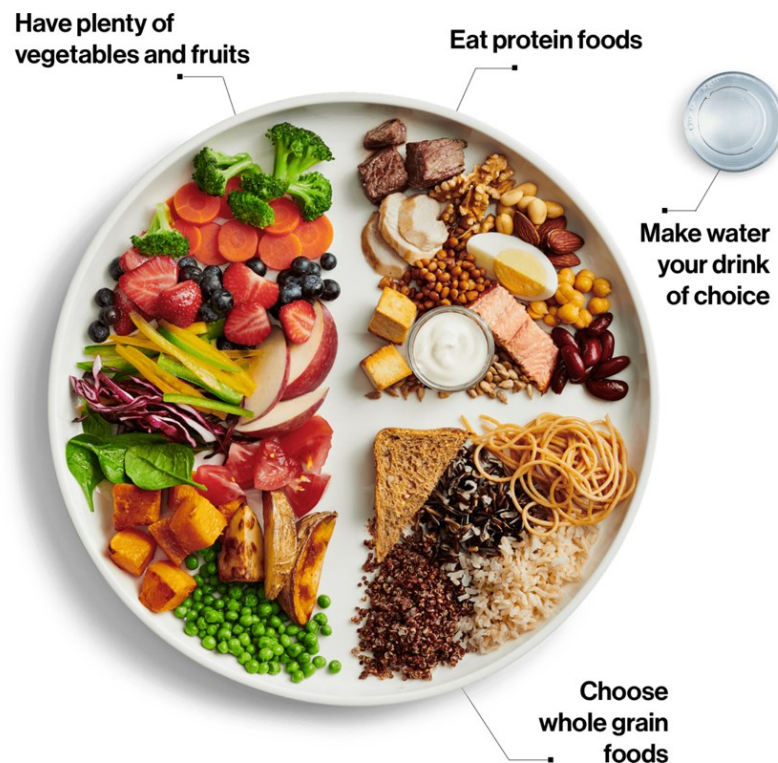
Cook Together, Eat Together, Enjoy Life Together!

Thank You



Resources

- **Canada's Food Guide**
- <https://food-guide.canada.ca/en/>
- Healthy Eating Resources, Alberta Health Services
- <https://www.albertahealthservices.ca/nutrition/Page2914.aspx>



References

1. First Nations Mental Wellness Continuum Framework, 2014. Health Canada and Assembly of First Nations
2. The Surprisingly Dramatic Role of Nutrition in Mental Health. Julia Rucklidge, TEDxChristchurch, 2014
3. Centre for Addiction and Mental Health (CAMH), Mental Illness and Addiction: Facts and Statistics, 2019
4. First Nations Food, Nutrition and Environment Study, Key Results For Participating First Nations in Alberta, 2013, www.fnfnes.ca
5. Canada's Food Guide, 2019, <https://food-guide.canada.ca/en/>
6. Water and the human body, https://www.usgs.gov/special-topic/water-science-school/science/water-you-water-and-human-body?qt-science_center_objects=0#qt-science_center_objects
7. Prostaglandins, Leukotrienes and Essential Fatty Acids, Volume 78, Issue 3, March 2008, Pages 171-182. Association of fish and long-chain n-3 polyunsaturated fatty acid intakes with the occurrence of depressive episodes in middle-aged French men and women
8. Harbottle, L. (2016, April). Depression and diet [Fact sheet]
9. bda.uk.com/foodfacts/Diet_Depression.pdf
10. Jenkins, T. A., Nguyen, J. C. D., Polglaze, K. E., & Bertrand, P. P. (2016, January 20). Influence of tryptophan and serotonin on mood and cognition with a possible role of the gut-brain axis. *Nutrients*, 8(1), 56
11. 15.0 Adjibade, M., Julia, C., Allès, B. et al. Prospective association between ultra-processed food consumption and incident depressive symptoms in the French NutriNet-Santé cohort. *BMC Med* 17, 78 (2019) doi:10.1186/s12916-019-1312-y