

Building Awareness of the Role of Nutrition in Diabetes

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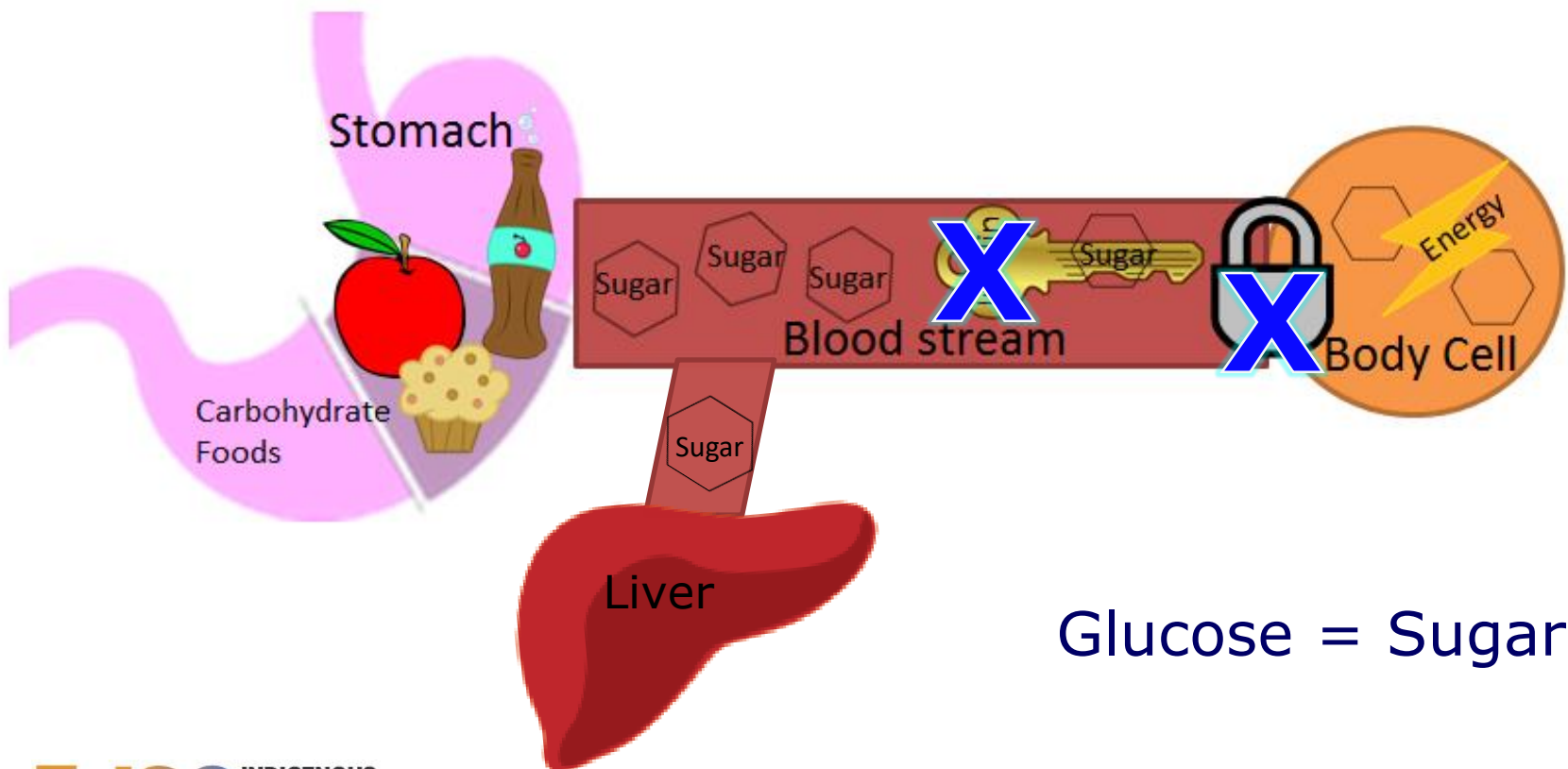
Learning Objectives:

Through this presentation you will learn:

- Understand what diabetes is and how it works
- Understand basic healthy eating principles
- Understand how different foods affect blood glucose
- Identify strategies to support people living with diabetes

What is Diabetes?

Diabetes is when you have too much sugar in your blood.



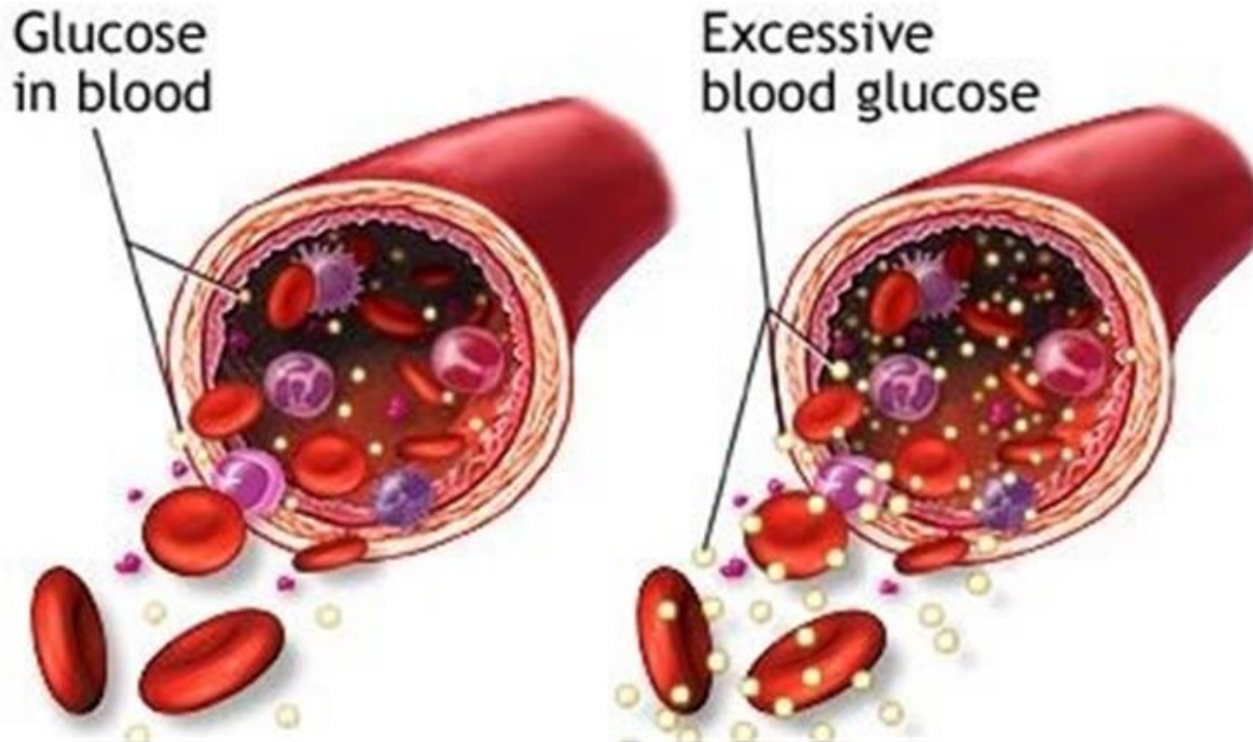
Glucose = Sugar

I've heard people talk about different types...

- **Prediabetes**: your blood sugars are higher than normal, but not as high as someone with diabetes. A person with prediabetes is at higher risk for diabetes.
- **Type 1 diabetes**: your pancreas makes no insulin. Often happens in childhood, but can happen at any age.
- **Type 2 diabetes**: your pancreas doesn't make enough insulin and/or your body doesn't use the insulin well. Used to only see in adults, but now found in children too. 90% of people living with diabetes have type 2.
- **Gestational diabetes**: type of diabetes that begins during pregnancy. Often goes away once the baby is born.

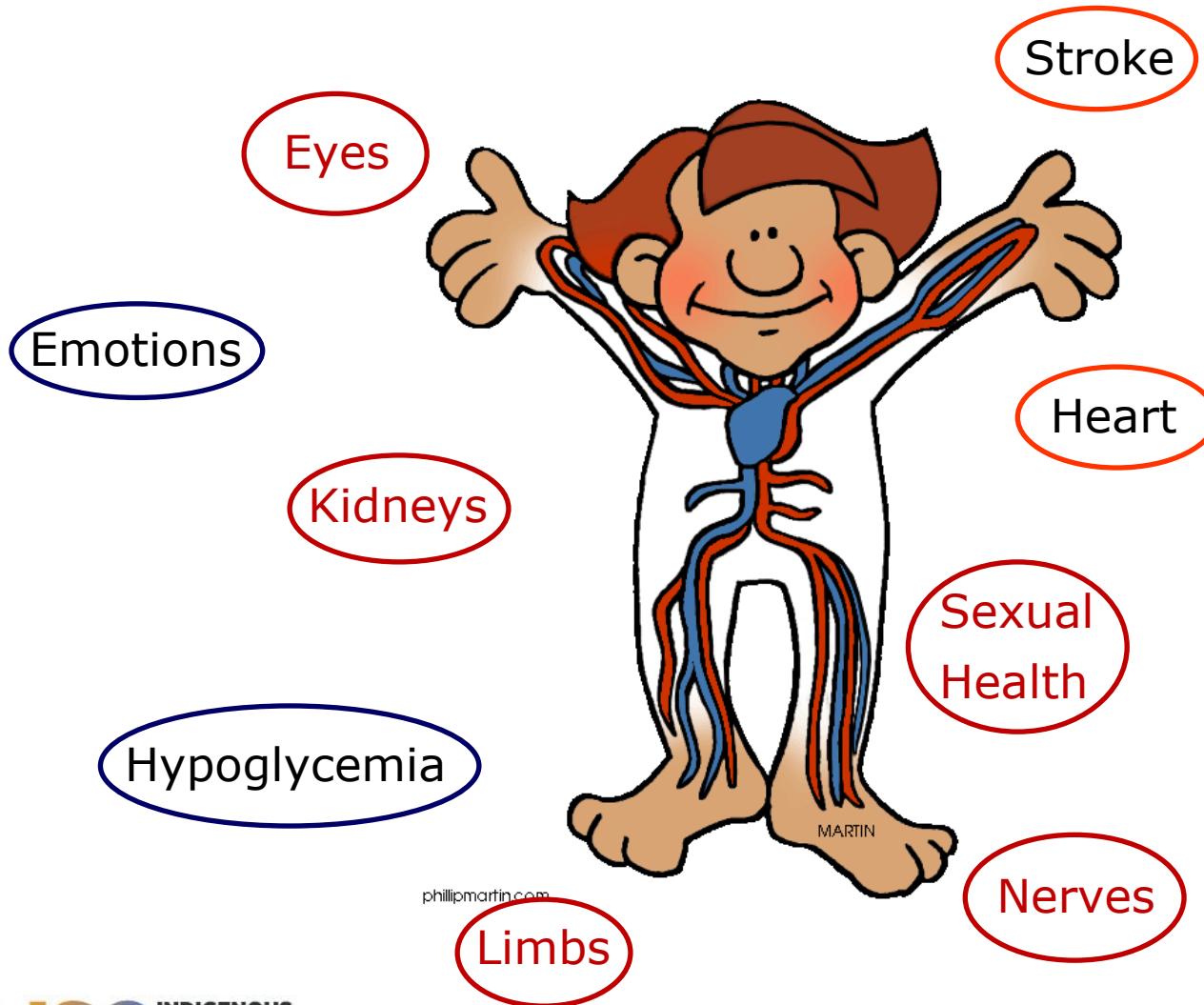
Glucose in blood vessels

- Glucose = sugar



Extra glucose makes our blood thick, more like syrup than water!

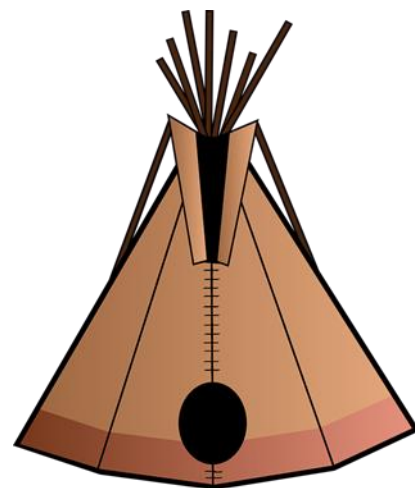
Overview of Complications



Diabetes Prevention and Management

- In diabetes, the steps you take to prevent diabetes are the same steps you take to manage diabetes.
- The basics of diabetes prevention and management are:
 - Nutrition,
 - Active Living and
 - Medications.
- Culture is at the core of prevention and management.

Medications



Nutrition

Active Living

What is Nutrition?

Nutrition is the study of food and how it works in your body.

But really Nutrition = Healthy Eating.

Healthy Eating is about:

1. What we eat to keep our bodies growing and in good repair **AND**
2. Having healthy food behaviours like being mindful, cooking, eating with people and enjoying your food.

Canada's food guide sums it up: **Eat well. Live well.**

This is important for everyone - not just people living with diabetes.

FOOD IS MEDICINE



Canada's Food Guide Snapshot

Vegetables

Fruit

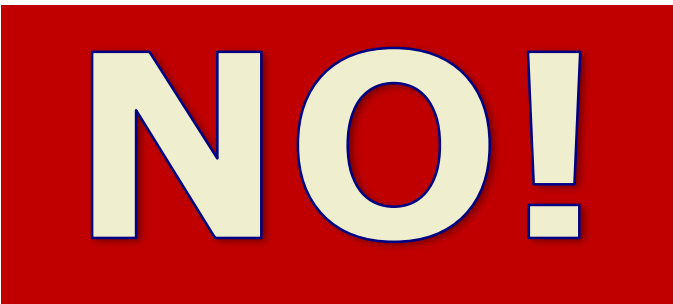


Protein

Grains

Eat a variety of foods each day!

Is there a “diabetes diet”?



NO!

But the food we eat can play a big role in how well our blood sugars are controlled. Eating healthy foods and choosing healthy food behaviours are important for all Canadians.

Healthy eating can reduce your risk of many diseases and complications.

What's in our food - macronutrients

- **Carbohydrates**

- Have the most effect on blood sugar



- **Protein**

- Have very little effect on blood sugar



- **Fat**

- Have indirect effects on blood sugar



Carbohydrate in Foods

This handout can help you find out which foods are higher and lower in carbohydrate. Knowing this can help you manage your blood sugar.

Carbohydrate foods

These foods turn into sugar in your blood. You can have some carbohydrate foods every day.

Each serving below is 1 choice.
1 choice = 15 grams of carbohydrate.

Grains							
Bread  1 slice	Baked bannock  2x2x1 inch (5x5x2.5 cm)	Bagel  ¼	Bun  ½	Soda crackers  7	Hot cereal  ¾ cup (175 mL)	Cold cereal  ½ cup (125 mL)	Pancake or waffle  1 (4 inch or 10 cm)
Cooked pasta, quinoa  ½ cup (125 mL)	Cooked rice, barley  ½ cup (75 mL)	Thick soup  1 cup (250 mL)	Pizza crust  ½ of 12 inch or 30 cm pizza	Pita  ½ (6 inch or 15 cm)	Roti/chapati  1 (6 inch or 15 cm)		
Starchy Vegetables							
Beans, peas, lentils  ½ cup (125 mL) cooked	Corn  ½ cup (125 mL)	Green peas  1 cup (250 mL)	Potato  ½ cup (125 mL)	Squash  ¾ cup (175 mL)	Sweet potato, yam  ½ cup (125 mL)		
Fruit							
Apple, orange  1 medium	Banana  ½ large	Blueberries  1 cup (250 mL)	Other berries  2 cups (500 mL)	Cherries or grapes  15	Canned fruit  ½ cup (125 mL)	Kiwis  2 medium	Peach, nectarine  1 large
Melon  1 cup (250 mL)	Pear  1 small	Pineapple  ¾ cup (175 mL)	Plums  2 medium	Juice, 100%  ½ cup (125 mL)			
Milk and Alternatives							
Milk or fortified soy beverage, no added sugar  1 cup (250 mL)	Yogurt, plain or no added sugar  ¾ cup (175 mL)	Yogurt with added sugar  ¾ cup (75 mL) or 100 g	Milk or fortified soy beverage with added sugar  ½ cup (125 mL)				
Other foods							
Sugar, jam, jelly, honey, syrup  1 Tbsp (15 mL)	Sugary drinks, pop  ½ cup (125 mL)	Popcorn  3 cups (750 mL)					

Foods with little or no carbohydrate

These foods have little effect on your blood sugar.

Vegetables					
					
Meat and Protein Foods					
Fish 	Lean meat and poultry 	Eggs 	Cheese 	Cottage cheese 	Tofu 
Fats					
Oil, tub margarine, butter 	Salad dressing 	Nuts, nut butters, seeds 	Olives, avocados 		
Extras					
Coffee, tea 	Broth 	Herbs, spices 	Diet pop 	Sugar substitutes 	

Notes:

Handout from AHS – Nutrition Education

Provided with handouts for this presentation.

A word about fibre

- Fibre is a special carbohydrate that does not turn into sugar!
- Fibre acts like a sponge to soak up extra sugar and fat in your blood.
- Fibre is found only in plant-based foods.
- Goal is 25g each day

High Fiber Food

Beans



Whole Grains



Vegetables



Fruits



Nuts



Seeds

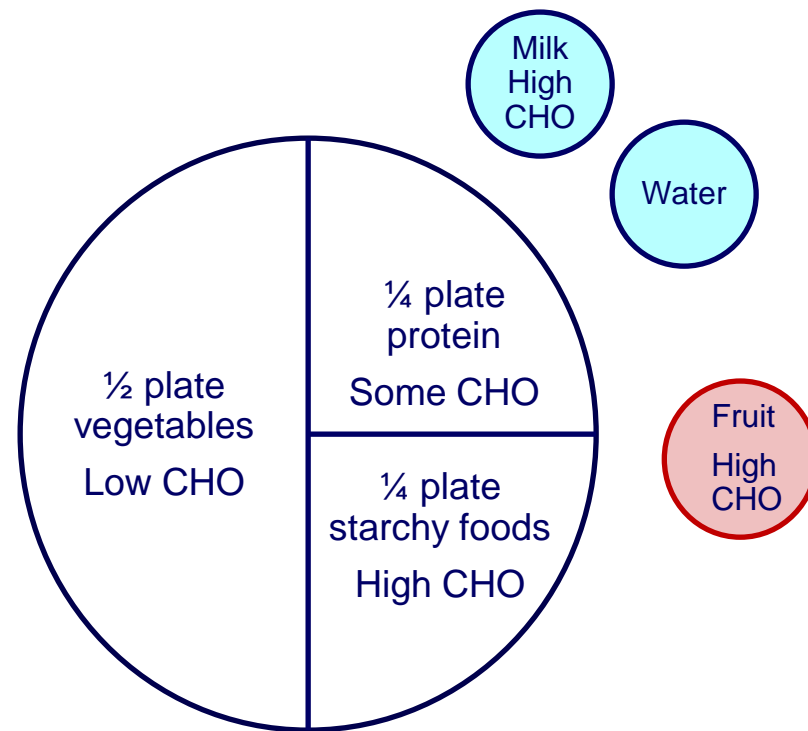


How Much to Eat: Plate model

Following a 'healthy plate' model at meals can help us eat the right amount of carbohydrates throughout the day



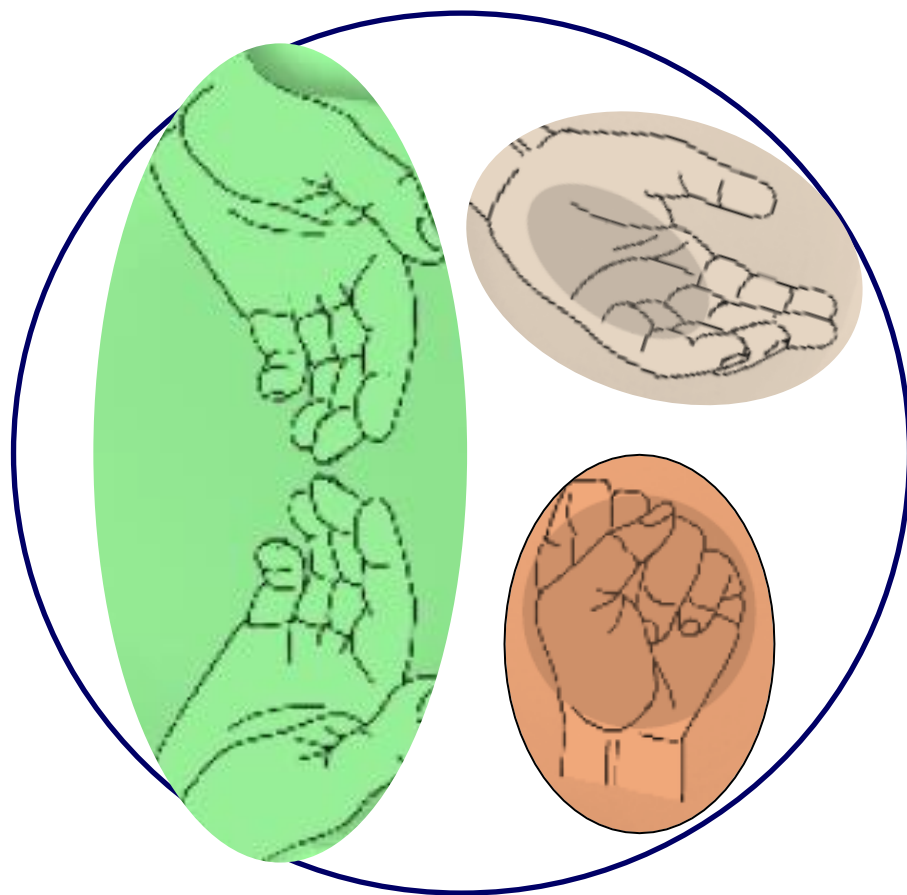
Canada's Food Guide



Diabetes Model

CHO = carbohydrate

Another way to “eyeball” portions



A fist is about 1 cup or a medium fruit



Two open hands hold about 1.5 cups



The palm of a hand is about ½ cup or 75 g

What's in our food – Ultra Processed Foods

Food can be classified into four categories:

- Unprocessed or minimally processed food
- Processed culinary ingredients
- Processed foods
- Ultra processed foods

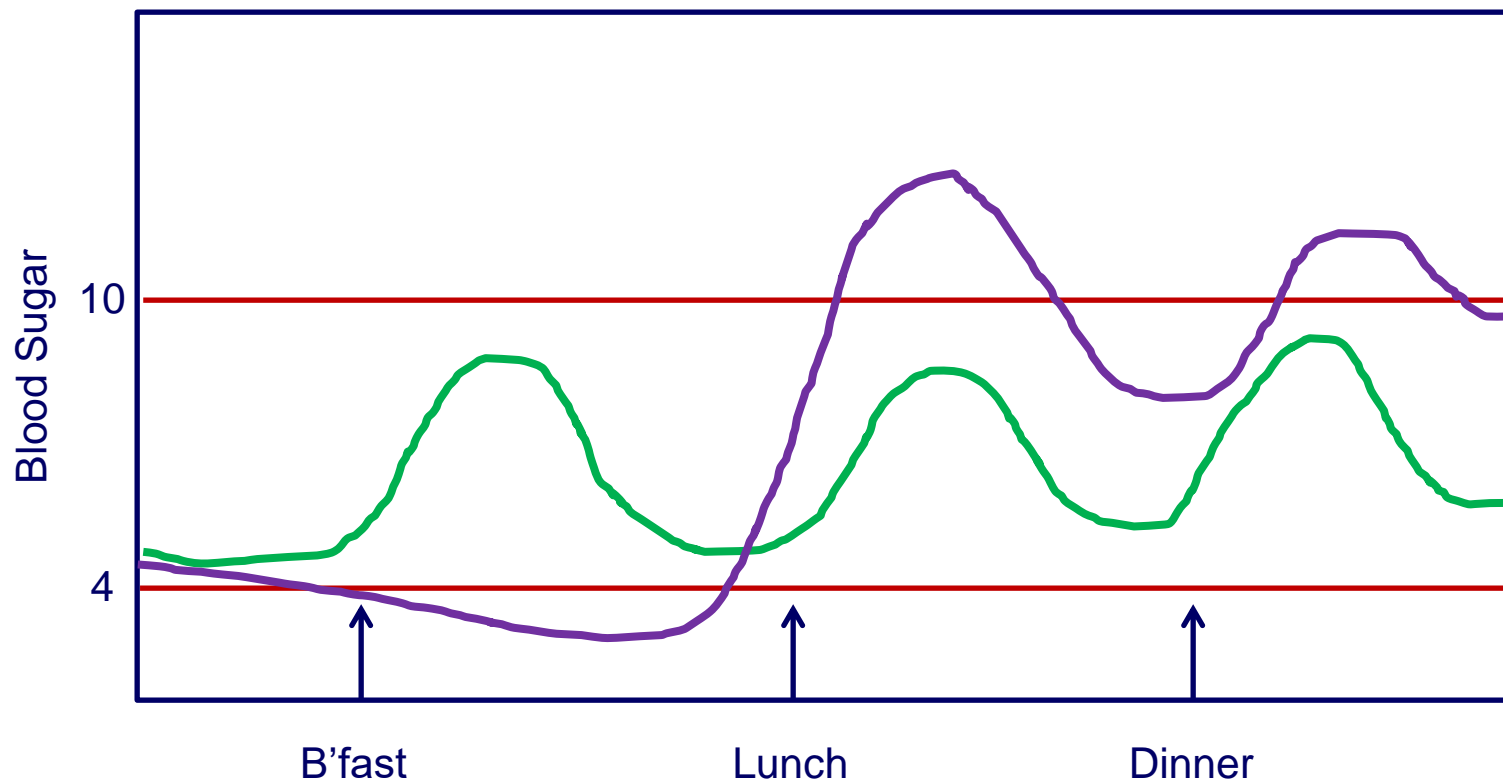
Ultra processed foods make up about 50% of the foods we eat. About 20% is from sweetened foods and beverages.



The more sugar, fat and salt we eat, the harder it is to control blood sugar, blood pressure and cholesterol.

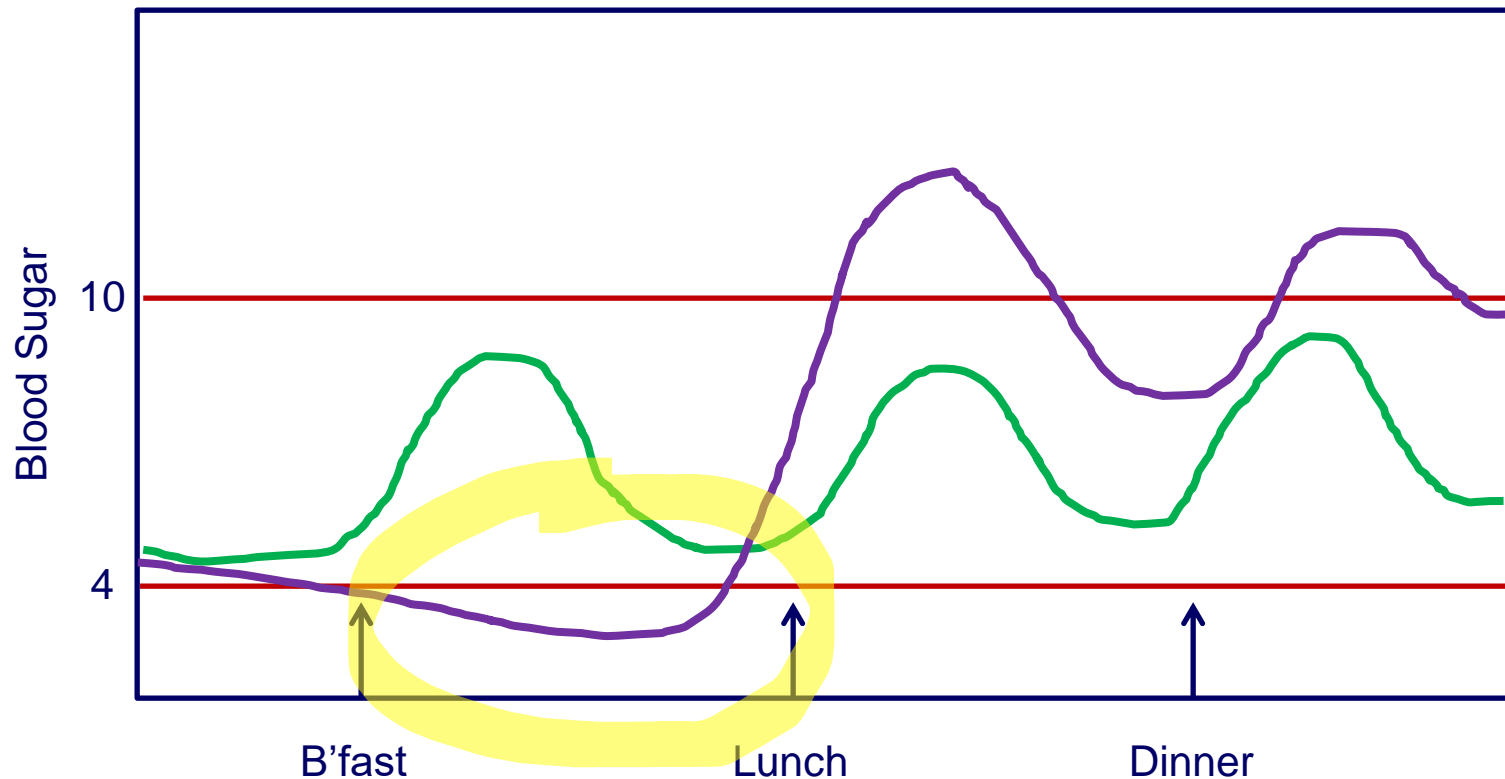
When to Eat - timing

Daily snapshot



When to Eat - timing

Daily snapshot



Nutrition Facts Tables

Fruity O's

Nutrition Facts		
Per 1 cup (31 g)		
Calories	121	% Daily Value*
Fat	1 g	1%
	Saturated 0 g	2%
	+ Trans 0 g	
Carbohydrate	27 g	
	Fibre 2 g	8%
	Sugars 13 g	13%
Protein	1 g	
Cholesterol	0 mg	
Sodium	116 mg	5%
Potassium	34 mg	1%
Calcium	5 mg	0%
Iron	5 mg	25%
Vitamin C	0 mg	0%

*5% or less is a little, 15% or more is a lot

Oatmeal

Nutrition Facts		
Per 1 packet (30 g dry)		
Calories	116	% Daily Value*
Fat	2 g	3%
	Saturated 0 g	2%
	+ Trans 0 g	
Carbohydrate	20 g	
	Fibre 3 g	10%
	Sugars 0 g	0%
Protein	4 g	
Cholesterol	0 mg	
Sodium	1 mg	0%
Potassium	115 mg	2%
Calcium	16 mg	1%
Iron	1 mg	6%
Vitamin C	0 mg	0%

*5% or less is a little, 15% or more is a lot

Looking for Fibre and Sugar

Fruity O's

Oatmeal

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Carbohydrate 27 g	
Fibre 2 g	8%
Sugars 13 g	13%
Protein 1 g	
Cholesterol 0 mg	
Sodium 116 mg	5%
Potassium 34 mg	1%
Calcium 5 mg	0%
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Fibre 3 g	10%
Sugars 0 g	0%
Protein 4 g	
Cholesterol 0 mg	
Sodium 1 mg	0%
Potassium 115 mg	2%
Calcium 16 mg	1%
Iron 1 mg	6%
Vitamin C 0 mg	0%
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Handy Tip: 4 g of sugar is equal to 1 teaspoon

Fruity O's

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Sugars 13 g	13%
Protein 1 g	
Cholesterol 0 mg	
Sodium 116 mg	5%
Potassium 34 mg	1%
Calcium 5 mg	0%
Iron 5 mg	25%
Vitamin C 0 mg	0%
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$$13\text{g} \div 4 = 3.25 \text{ tsp}$$



Oatmeal

Nutrition Facts	
Per 1 packet (30 g dry)	
Calories 116	% Daily Value*
Fat 2 g	3%
Saturated 0 g	2%
+ Trans 0 g	
Carbohydrate 20 g	
Fibre 3 g	10%
Sugars 0 g	0%
Protein 4 g	
Cholesterol 0 mg	
Sodium 1 mg	0%
Potassium 115 mg	2%
Calcium 16 mg	1%
Iron 1 mg	6%
Vitamin C 0 mg	0%
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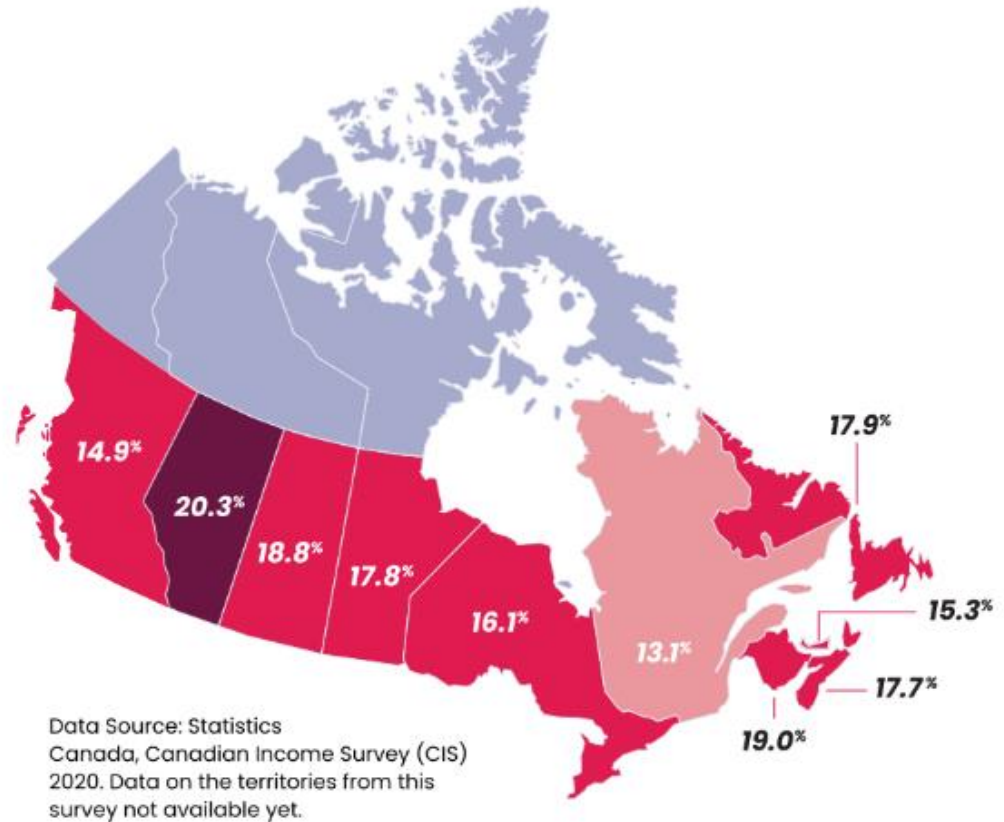


Prevalence of Household Food Insecurity by Province, 2021

Food insecurity

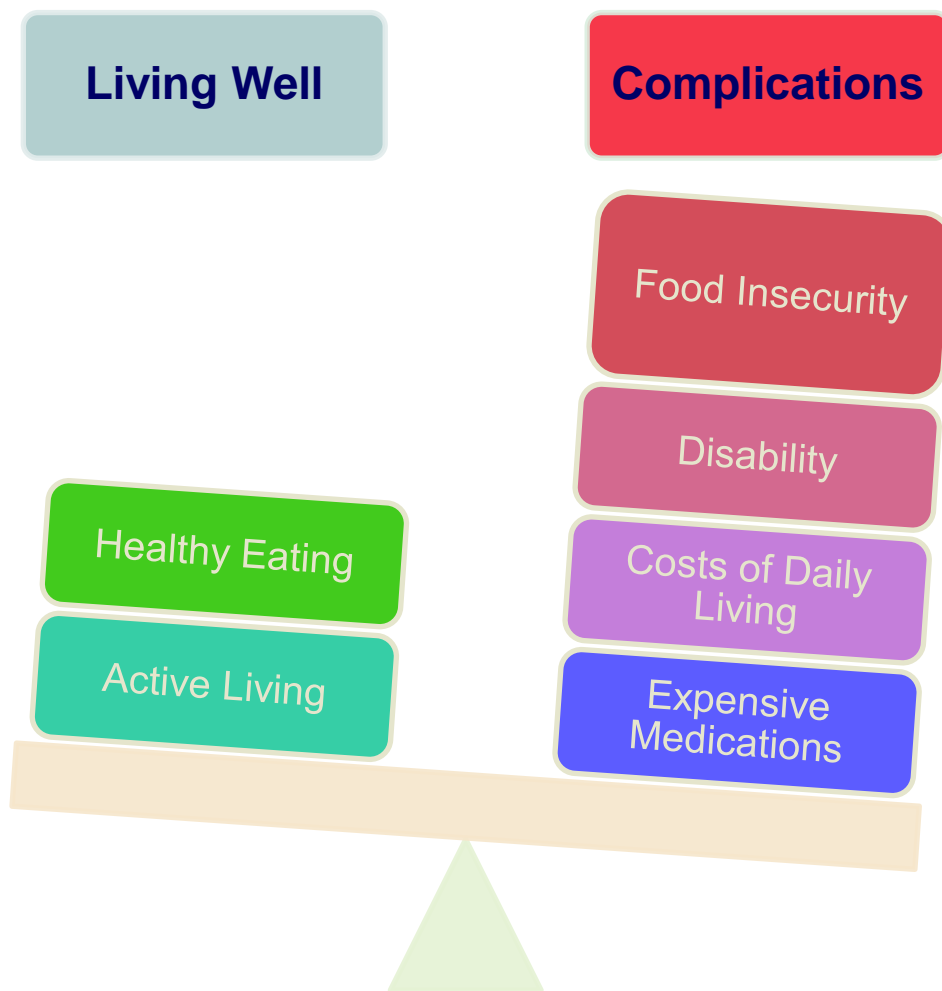
Food insecurity is the inadequate or insecure access to food due to financial constraints.

Food insecurity is a serious public health issue.



AB has the highest rates of food insecurity!

Diabetes and Food Insecurity



Free Food in Alberta

<https://www.albertahealthservices.ca/nutrition/Page16163.aspx>

- Directory of Free Food in Alberta, by health zone
- Call 211 to find information on eligibility and other information



What can I do?



Listen



Refer



Plan



Offer

Listen

- Listen to your clients
- Listen to resources
- Listen with kindness



Refer

- Refer to health team
- Refer to resources
- Refer to your social programs



Plan

- Plan activities for “hungry days”
- Plan to work with partners
- Plan to stay informed



Offer

- Offer low-cost, healthy foods
- Offer your knowledge
- Offer resources



What do you say?

Joe comes to you and says he is having a hard time right now. He doesn't know how to make his money last to the end of the month. He says he is hungry, and his diabetes is not good.



Listen



Plan



Refer



Offer

Resources

Diabetes Canada www.diabetes.ca

Alberta Health Services Healthy Eating Starts Here page:
<https://www.albertahealthservices.ca/nutrition/Page12598.aspx>

FNIHB Nutrition Advisory Teak: Contact Regional Nutritionist, Laura White:
laura.white@canada.ca

Call 811 to speak to an AHS Registered Dietitian

Look in the handout section of this presentation posted on www.fntn.ca

What we talked about today

- Diabetes is when you have too much sugar in your blood.
- Most of the sugar in our blood comes from foods that contain carbohydrates.
- Choose foods closer to the way the Creator made them.
- Split plate method helps show what foods to eat and in what proportion.
- Canned and frozen vegetables and fruit are healthy, low-cost choices.
- People living with diabetes + food insecurity have a much harder time living well.

Thank you!

Questions?

