

# HOW TO CONTROL BLOOD GLUCOSE DURING PREGNANCY?



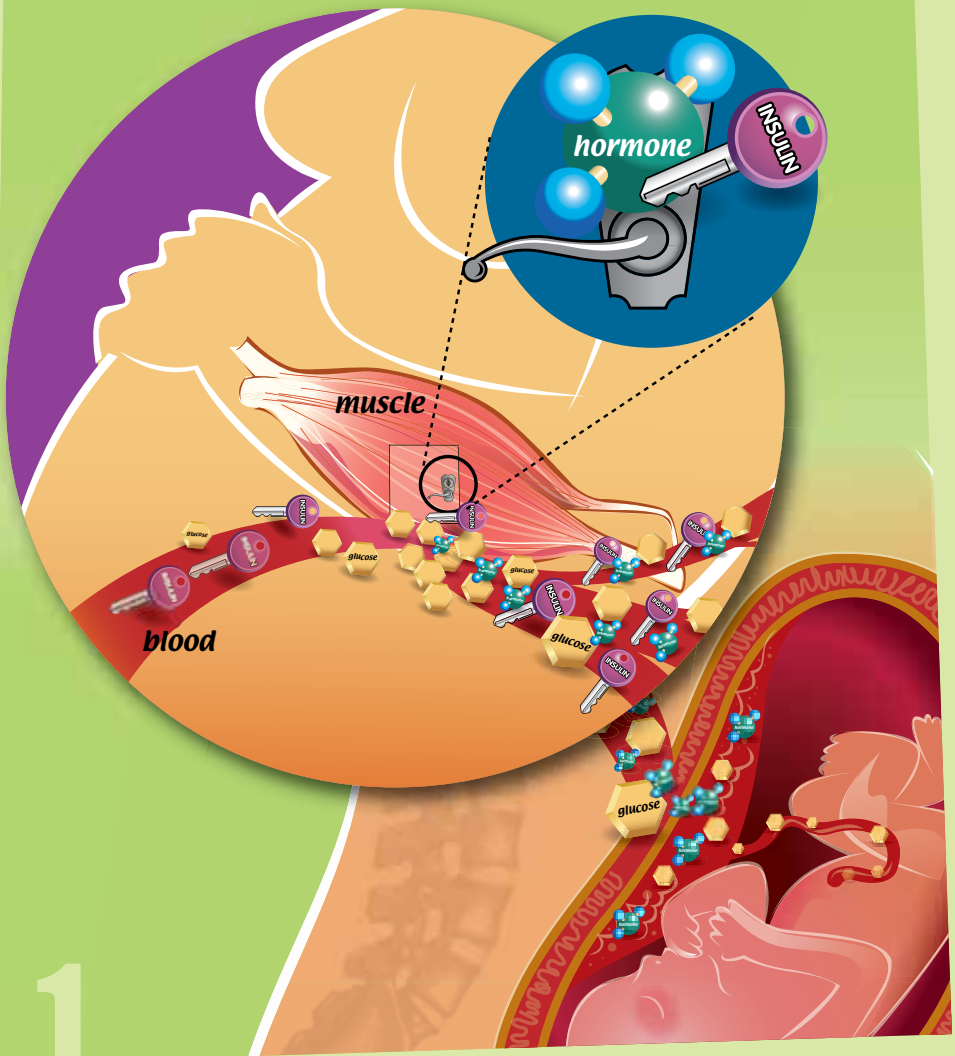
Conseil Cri de la santé et des services sociaux de la Baie James

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Cree Board of Health and Social Services of James Bay

# HOW THE BODY WORKS DURING PREGNANCY

During **all** pregnancies, the placenta makes a **hormone** called human placental lactogen which allows the baby to grow and develop. This hormone supplies energy for the baby but also blocks the normal action of the mother's insulin. This is called **insulin resistance**.



# BLOOD GLUCOSE DURING PREGNANCY

Insulin resistance can increase blood glucose levels.

Keeping blood glucose normal during pregnancy will reduce the risk of **complications** for the mother and baby.

These complications could include:

- For the mother: infections, high blood pressure, early labour, difficult delivery and/or a c-section.
- For the baby: low blood glucose at birth, breathing problems, infections or other health problems.
- Baby growing too much; large babies can get injured at birth.



## DID YOU KNOW

Mothers with healthy blood glucose will have babies with healthy birth weights which could prevent diabetes later in the child's life.

# CHECK YOUR BLOOD GLUCOSE

Always carry a glucometer with you.



Check your blood glucose:

- **Before breakfast**
- **1 hour after each meal** (or more often if needed)

This will help you understand the effects of food, physical activity and insulin on your blood glucose.

## AIM FOR THESE BLOOD GLUCOSE LEVELS

Before a meal	Under 5.3 mmol/L Under 5.0 mmol/L (if taking insulin)
1 hour after a meal	Under 7.8 mmol/L
2 hours after a meal	Under 6.7 mmol/L

# HOW TO KEEP BLOOD GLUCOSE HEALTHY

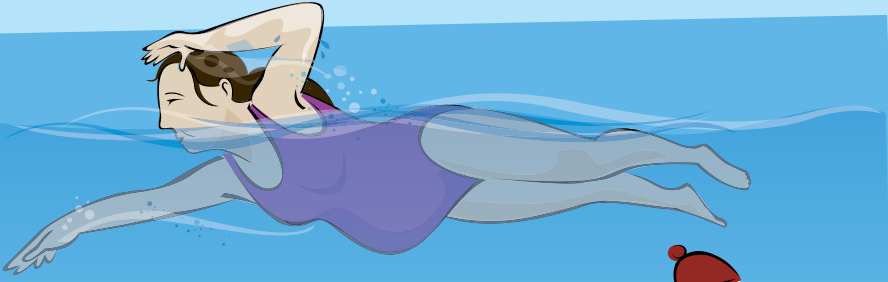
- **Be active** every day
- Choose **healthy food**
- Eat **3 small nutritious** meals
- Add **nutritious** snacks if needed, including one at bedtime
- Take **insulin** as prescribed
- Aim for **healthy** weight gain



## DID YOU KNOW

Stress can increase your blood glucose.

# BE ACTIVE EVERY DAY



This will help:

- Control blood glucose levels
- Make delivery and recovery easier
- Keep a healthy weight
- Manage stress

If you were active before pregnancy, continue with the same routine.

If you weren't, start with walking.



- Aim for 30 minutes a day. Every minute counts!
- Try to walk after meals.

# CHOOSE HEALTHY FOOD

To help control blood sugar:

- Eat **twice** as **healthy** instead of **twice** as **much**.
- Eat healthy **homemade meals** as much as possible.
- Choose **food rich in fiber**, such as whole grain bread, oatmeal, bran cereal, vegetables and fruits.



## Vegetables

- 2 or more different kinds
- Fill half your plate with vegetables

## Starch

One of these:

- Whole wheat Bannock
- Whole wheat bread
- Potato
- Whole wheat pasta
- Brown rice

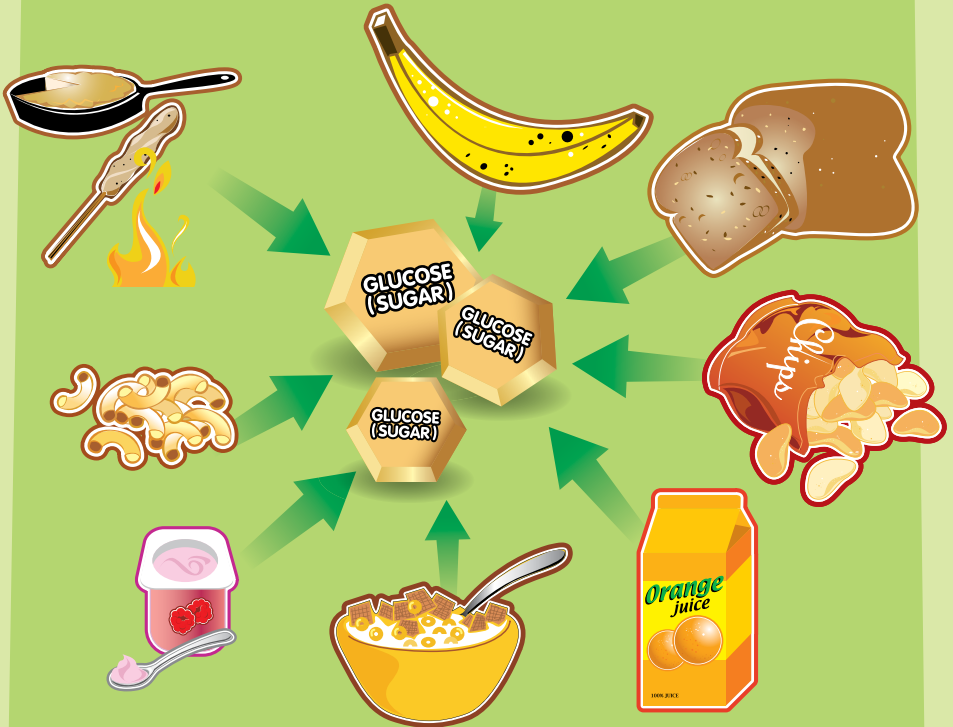
## Protein

One of these:

- Traditional meat
- Fish
- Skinless chicken
- Peanut butter
- Eggs

# WHERE SUGAR COMES FROM

Sugar comes from most of the food we eat. **Not just sweet tasting food.**



## Food that contains sugar includes:

- Anything made of flour (bannock, bread, pasta, etc.)
- Rice, potatoes, corn and cereals
- Fruits and fruit juices
- Milk and yogurt
- Desserts, sweets and sweet drinks

**Meat, fish, eggs and cheese do not contain sugar.**

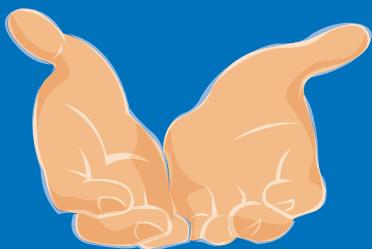


# PORTION SIZES

Eating small portions will help control your blood glucose. Your hands are useful tools to estimate your portion sizes. They're always with you!

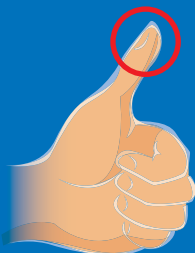
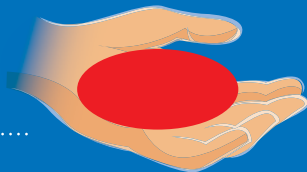
**WHEN PLANNING A MEAL,  
USE THESE PORTION SIZES AS A GUIDE:**

**Starch** (including potatoes and corn) **and fruit:**  
1 portion = size of one fist



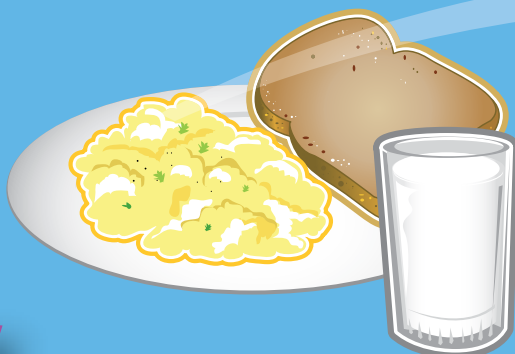
**Vegetables** (except potatoes and corn):  
1 portion = size of both hands cupped together

**Meat and fish:**  
1 portion = size of your palm, thickness of your little finger

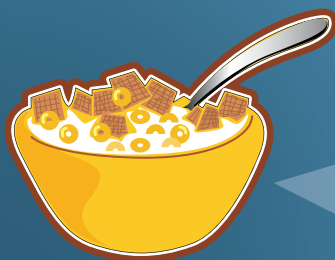


**Fat:**  
1 portion = size of the tip of your thumb

# EAT SMALL, NUTRITIOUS TO HAVE HEALTHY



Blood glucose may be higher in the morning. Avoid juice and limit food that contain sugar at breakfast.



# MEALS AND SNACKS

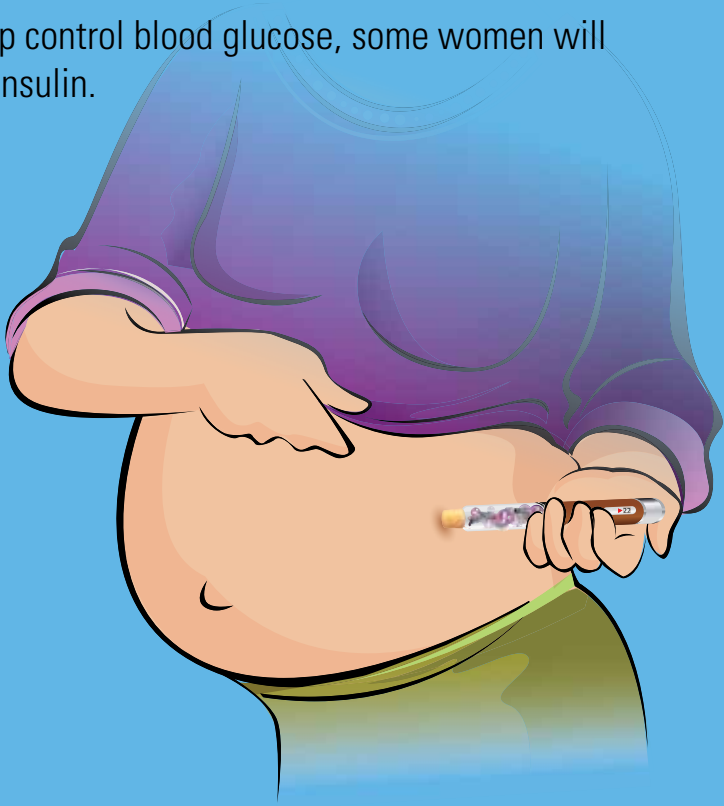
## BLOOD GLUCOSE



Thirsty? Best choices are water, milk and fish broth.

# INSULIN

To help control blood glucose, some women will need insulin.



**Bedtime** insulin will help lower blood glucose in the **morning**. It should be taken at the same time every day, often in the evening.

**Mealtime** insulin will help control blood glucose **after each meal**. It should be taken when you start eating.

Insulin is safe for the baby but **high blood glucose is not.**

# INSULIN

Write down your blood glucose results and the amount of insulin you take; this will help you understand and manage your diabetes.



Conseil Crie de la sant  et des services sociaux de la Baie James  
 Cree Board of Health and Social Services of James Bay

NAME: \_\_\_\_\_

**OPTIMAL BLOOD GLUCOSE**  
 Before breakfast - less than 5.0 mmol/L  
 After meals - less than 7.8 mmol/L

## GESTATIONAL DIABETES - INSULIN/BLOOD GLUCOSE FLOW SHEET

DATE	INSULIN				BLOOD GLUCOSE				COMMENT
	H BREAKFAST	H LUNCH	H SUPPER	H BED	BEFORE BREAKFAST	1 HR AFTER BREAKFAST	1 HR AFTER LUNCH	1 HR AFTER SUPPER	

Adjust your insulin according to your blood glucose level of the past 2 days

## Before breakfast

<b>Glucose level</b>	<b>What to do with bedtime insulin?</b>
• Above 6.9	Add 4 units to bedtime dose
• 5.5 - 6.9	Add 2 units to bedtime dose
• 5.0 - 5.4	Add 1 unit to bedtime dose
• 4.1 - 4.9	Take same dose at bedtime
• 4.0 or less (even one time)	Reduce bedtime dose by 2 units

## 1 hour after breakfast

<b>Glucose level</b>	<b>What to do with mealtime insulin?</b>
• Above 10.0	Add 2 units to breakfast dose
• 7.9 - 10.0	Add 1 unit to breakfast dose
• 5.6 - 7.8	Take same dose with breakfast
• 5.5 or less (even one time)	Reduce breakfast dose by 2 units

# SLIDING SCALE

## 1 hour after lunch

### Glucose level

### What to do with mealtime insulin?

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- Above 10.0 Add 2 units to lunch dose
- 7.9 - 10.0 Add 1 unit to lunch dose
- 5.6 - 7.8 Take same dose with lunch
- 5.5 or less Reduce lunch dose by 2 units  
(even one time)

## 1 hour after supper

### Glucose level

### What to do with mealtime insulin?

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- Above 10.0 Add 2 units to supper dose
- 7.9 - 10.0 Add 1 unit to supper dose
- 5.6 - 7.8 Take same dose with supper
- 5.5 or less Reduce supper dose by 2 units  
(even one time)



### DID YOU KNOW

When your blood glucose rises,  
so does the baby's blood glucose.

# LOW BLOOD GLUCOSE

When you take insulin, you can have low blood glucose (lower than 4 mmol/L). **You might have these symptoms.**



**MOOD SWINGS**



**SHAKING**



**PALE**



**SWEATING**



**BLURRED VISION**



**DIZZY**



**HEADACHES**



**VERY HUNGRY**



**VERY TIRED**



# HOW TO TREAT LOW BLOOD GLUCOSE

**Check your blood glucose.** If it is lower than 4 mmol/L:

1. Take one of the following:
  - $\frac{3}{4}$  cup of juice **or**
  - $\frac{3}{4}$  cup of **regular** pop **or**
  - 3 teaspoons of white sugar in water **or**
  - 3 teaspoons of honey or **regular** jam
2. Wait 15 minutes and check your blood glucose again.
3. Repeat steps 1 and 2 until your blood glucose is 4 mmol/L or more.
4. If your next meal is more than 1 hour away, eat a small snack, such as cheese and crackers.

## WHY MY BLOOD GLUCOSE WAS LOW?

- I ate less than usual?
- I skipped a meal?
- I took too much insulin?
- I was more active than usual?

# HIGH BLOOD GLUCOSE

During pregnancy, high blood glucose is more than **7.8 mmol/L**. You might or might not have these symptoms.



**DRY MOUTH**



**VERY THIRSTY**



**FREQUENT URINATION**

## HOW TO TREAT HIGH BLOOD GLUCOSE

If blood glucose **before** a meal is higher than **8 mmol/L** or if it is higher than **10 mmol/L 1 hour after** a meal, call your health care team.

If you take insulin, adjust it according to the insulin sliding scale. If you're thirsty, drink water.

# AFTER DELIVERY

Keep a healthy lifestyle after your baby is born to help you lose weight and prevent or control diabetes.

If you had diabetes before pregnancy, continue insulin while breastfeeding.

If you had GDM, it is important to have a blood test when your baby is **6 weeks old**, and every year.



## DID YOU KNOW

Breastfeeding helps prevent obesity and diabetes for your baby.

# TO HELP YOUR WHOLE FAMILY PREVENT DIABETES

UNHEALTHY  
LIFESTYLE

HEALTHY  
LIFESTYLE



## CHOOSE A HEALTHY PATH!

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Conseil Cri de la santé et des services sociaux de la Baie James

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OCTOBER 2015