



Type 2 Diabetes

Your guide to getting started

Information on:

- What is Type 2 Diabetes
- Healthy eating
- Active living
- Basic care

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Living Well With Diabetes

The information in this booklet can help you start to take care of your diabetes. You will find the tools you need to take charge of your diabetes care, and who to call for assistance. You can live a long, healthy life with diabetes.

When you first hear you have diabetes, you may feel scared, shocked, overwhelmed or even angry. These feelings are common. Stay positive. Diabetes is manageable. You can do it!

Remember

- **Others living with diabetes are a great support.**
- **Talk to someone today.**
- **As you learn to live healthy with diabetes talk to your friends and family about your diabetes and let them offer support.**
- **Remember there are many people and agencies that can help you. Call today. See back cover for list.**

This document was originally developed in 2008 by the Type 2 Diabetes Provincial Working Group and has been updated by a similar group in 2020. We acknowledge resources provided in part by Diabetes Canada.

General Healthy Living Guidelines

- Eat in a healthy way; follow Canada's Food Guide
- Strive for daily physical activity
- Maintain a healthy weight
- Keep your blood sugar levels in your target range
- Have your blood pressure checked every 3-6 months
- Keep your cholesterol and other blood fats in target range
- Take your medications as directed
- Don't smoke or chew tobacco
- Seek help if you feel anxious, depressed or stressed
- Aim for 7 to 8 hours of quality sleep each night

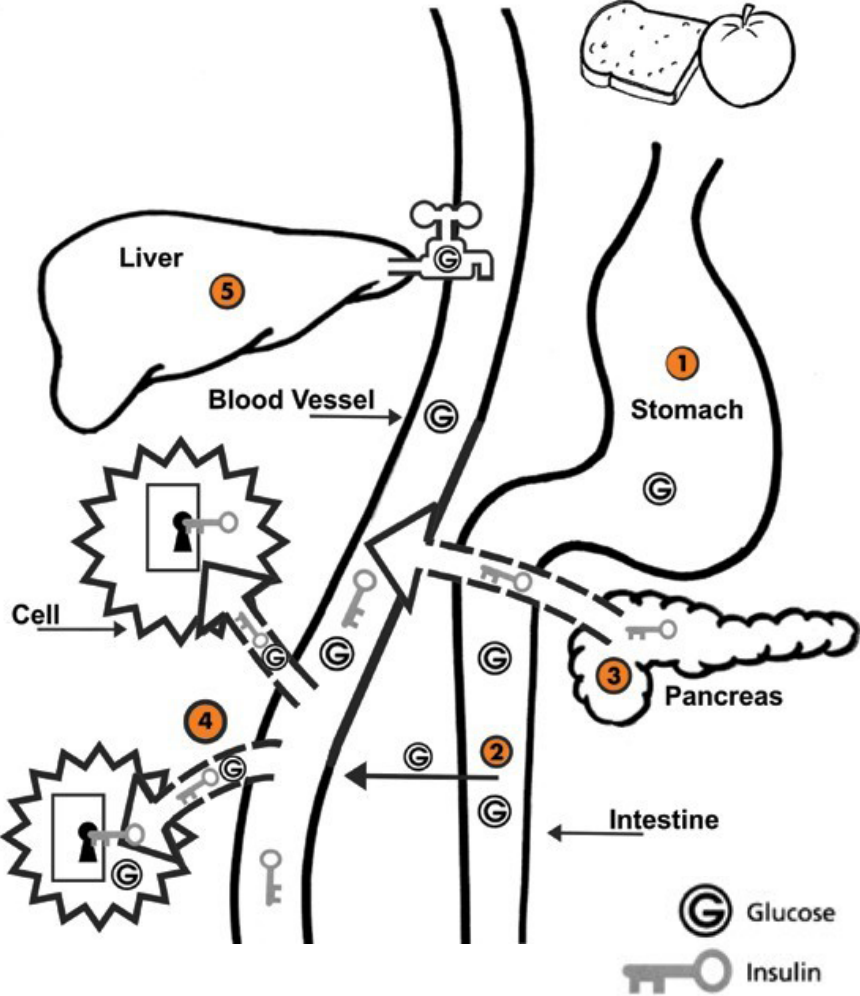
Discuss with your health professional what you can do to stay healthy.

Know Your Diabetes Vital Signs – ABCDESSS

- A = A1C - Target of 7% or lower or personalized target**
- B = Blood Pressure Target 130/80 mmHg or lower**
- C = Cholesterol LDL: 2 mmol/L or lower**
- D = Drugs for decreasing heart disease risk**
- E = Exercise goals and healthy living**
- S = Self-management support**
- S = Screening or monitoring for complications**
- S = Smoking cessation (if applicable)**

Understanding Type 2 Diabetes

Use this diagram to understand what happens when you eat. The Numbers correspond to the statements on the following page.



Let's look at how the body uses food:

1. When you eat food, it gets broken down in your stomach. Food travels from your stomach to the intestine.
2. Much of the food you eat gets broken down into glucose and goes into your blood. Glucose and sugar mean the same thing.
3. As the amount of sugar starts to rise in the blood stream, the pancreas releases insulin.
4. Insulin carries the sugar from the blood and unlocks the door of the cells in your body to let the sugar in. All cells need sugar for energy.
5. When there is too much sugar, it gets stored in the liver or changed into fat. The liver will deliver sugar to the blood when you need it, such as when you are sleeping.

Glucose and sugar mean the same thing.

What Happens When You Have Type 2 Diabetes?

- Your body does not make enough insulin
- Your body cannot use insulin properly
- Your liver may put glucose back into the blood when not needed

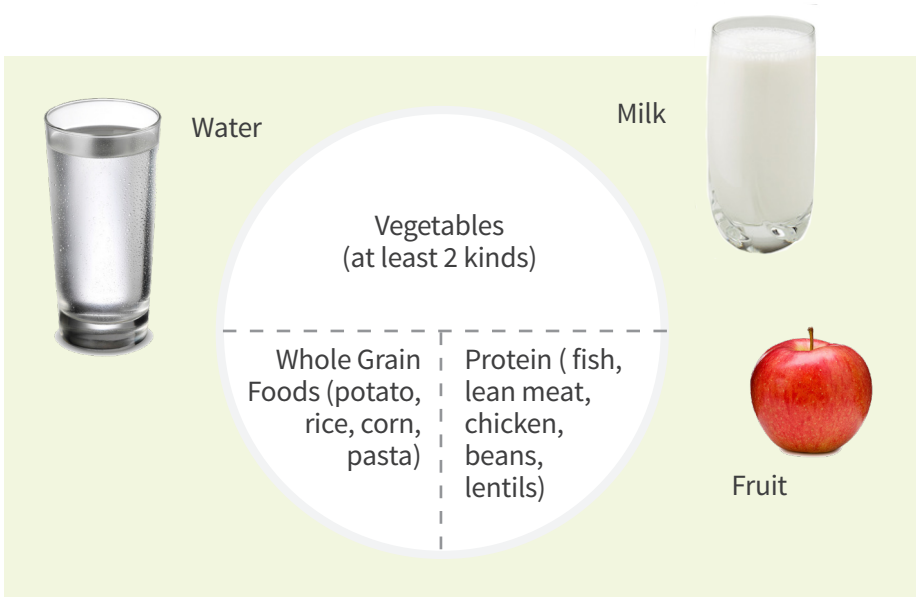
This causes the sugar to stay in the blood and you have high blood sugar.

The good news is...diabetes can be managed by healthy eating, active living and medications.

Healthy Eating

Healthy eating helps you feel great, manage your ABCs of diabetes, and maintain a healthy weight.

What a balanced meal looks like



Be sure to eat breakfast.
It provides a good start to the day.

It is natural to have questions about what food to eat. A dietitian can help you. See contact information on back page.

Healthy Eating Guidelines

The following information can be used in combination with Canada's Food Guide:

- Eat 3 balanced meals every day.
- Space meals 4 to 6 hours apart.
- Eat meals with others.
- Choose more high fibre foods like whole grain breads, cereals, brown rice, baked potato with skin, dried beans and lentils at every meal.
- Eat more vegetables.
- Cook more often.
- Use low fat cooking methods (grilling, broiling, baking, poaching or barbequing) instead of frying.
- Limit processed and fast foods (e.g. bologna, wieners, TV dinners, canned or dried soups). These foods tend to have higher amounts of salt, sugars and/or fat.
- Limit your intake of alcohol as it may affect your blood sugars and weight.

**If thirsty, water is the best choice.
Drinking fruit juice, regular pop and sweetened
drinks will raise your blood sugar.**

Carbohydrate

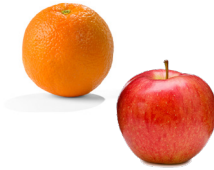
- Carbohydrate includes grains, starchy vegetables, milk, fruit and sugars.
- You need carbohydrate as the main source of energy for your body.
- Carbohydrates break down into sugar which goes into your bloodstream and raise blood sugars.
- Include carbohydrate foods with each meal.

When planning a meal your hands can be very useful. Choose an amount the size of your fist.

Whole Grain Foods



Fruits



Milk & Yogurt



Have up to an 8 oz (250 ml) glass of 1% or skim milk or $\frac{3}{4}$ cup (175 ml) of yogurt

Choose MORE often:

- ✓ Whole grain breads, crackers, and baked bannock
- ✓ Whole grain cereals and noodles
- ✓ Brown and wild rice and other grains
- ✓ Beans, peas and lentils
- ✓ Baked potato with skin and corn
- ✓ Milk and yogurt (less than 2% milk fat)
- ✓ Fruit
- ✓ Wild berries

Choose LESS often:

- ✓ Fruit juice, regular pop, sweetened drinks, and drinks made from crystals
- ✓ Baked goods, muffins, cakes and pies
- ✓ Sugar, honey, syrup, jam, jelly and molasses
- ✓ French fries and potato chips
- ✓ Candy and chocolate
- ✓ Ice cream and frozen yogurt

Protein

- Protein includes meat, cheese, dried beans, lentils and nuts
- Protein is not changed into sugar in your body
- Protein foods help build muscles and maintain all body tissues
- Eating large amounts of protein can cause weight gain and can damage the heart and blood vessels

Choose an amount of protein up to the size of the palm of your hand and the thickness of your little finger at each meal.



Foods that contain Protein:

- ✓ Lean meat – beef/pork
- ✓ Beans, peas and lentils *
- ✓ Poultry (without skin)
- ✓ Eggs
- ✓ Fish and shellfish
- ✓ Soy products, i.e. tofu
- ✓ Nuts & seeds (unsalted, small portions)
- ✓ Cheese (less than 20% milk fat [MF])
- ✓ Peanut butter
- ✓ Wild meat and game

* Also contain carbohydrate

Fat

- Fat does not change into sugar in your body
- Fat is needed for growth and protection of organs
- Eating too much fat can cause weight gain and can damage the heart and blood vessels
- Choose healthy fats more often

Limit fat to an amount the size of the tip of your thumb at each meal.



Choose MORE often:

- ✓ Soft tub margarine
- ✓ Vegetable oil (canola, sunflower)
- ✓ Nuts and seeds (small portions)
- ✓ Low-fat salad dressings
- ✓ Avocado

Choose LESS often:

- ✓ Butter and hard/block margarine
- ✓ Shortening and lard
- ✓ Bacon
- ✓ Skin of chicken
- ✓ Cream, cream cheese, sour cream
- ✓ Fried food

Vegetables

- Vegetables are full of vitamins and minerals and provide fiber
- Most vegetables are low in carbohydrates (except starchy vegetables like potatoes, sweet potatoes and corn)
- Enjoy them freely!

Choose as many vegetables as you can hold in both hands at each meal.



- ✓ Broccoli
- ✓ Cauliflower
- ✓ Peas
- ✓ Green / yellow beans
- ✓ Celery
- ✓ Carrots
- ✓ Cucumber
- ✓ Coloured peppers
- ✓ Mushrooms
- ✓ Eggplant
- ✓ Spinach
- ✓ Cabbage
- ✓ Brussel sprouts
- ✓ Zucchini
- ✓ Asparagus
- ✓ Mixed vegetables
- ✓ Squash
- ✓ Beets
- ✓ Tomatoes
- ✓ Turnips
- ✓ Radishes
- ✓ Onions
- ✓ Lettuce and other greens

Sample Meal Plan #1

Breakfast

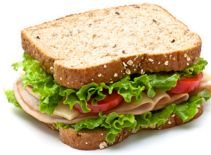
- High-fibre cereal (½ cup/125 ml)
- Toast (1 slice)
- 1 Orange
- Low-fat milk (1 cup/250 ml)
- Peanut butter (1 tbsp/15 ml)
- Tea or coffee and/or water

For larger appetites add:

- 1 slice of toast (or a small bagel) with 1 tbsp (15 ml) peanut butter

Lunch

- 1 sandwich
 - » 2 slices whole wheat bread or 6" pita
 - » lean meat, chicken, fish (2 oz/60 g)
 - » tomato slices and lettuce
 - » margarine (1 tsp/5 ml)
- Carrot or celery sticks
- Low fat fruit yogurt (½ cup/125ml) or 1 fruit
- Tea or coffee and/or water



For larger appetites add:

- more vegetables
- 1 cup (250 ml) of broth soup
- 1 oz (30 g) of lean meat, chicken or fish to the sandwich



Dinner (Supper)

- Baked potato (1 medium) or rice (¾ cup/150 ml), or whole wheat noodles/pasta (1 cup/250 ml)
- Vegetables
- Margarine (1 tsp/5 ml)
- Lean meat, chicken or fish (2 oz/60 g)
- Green salad with low-fat dressing (1 tbsp/15 ml)
- Grapes (15) or 1 pear
- Low-fat milk (1 cup/250 ml)
- Tea or coffee and/or water



For larger appetites add:

- more vegetables
- 2 oz (60 g) of lean meat, chicken, brown rice, whole wheat noodles, or
- have a large potato or 1 cup (250 ml) rice or 1 ½ cups (375 ml) noodles



Sample Meal Plan #2

Breakfast

- 1 egg (poached)
- Ham (1 oz/30 g)
- Whole wheat English muffin or bannock
- Low-fat milk (1 cup/250 ml)
- Tea or coffee and/or water



For larger appetites add:

- 1 oz (30 g) ham
- 1 piece of fruit

Lunch

- Wild meat (2 oz/60 g)
- Raw carrots and sliced cucumber
- Low-fat ranch dressing for dip (1 tbsp/15 ml)
- Whole wheat spaghetti (¾ cup/175 ml)
- Tomato sauce (¼ cup/50 ml)
- Unsweetened, canned fruit (½ cup/125 ml)
- Tea or coffee and/or water



For larger appetites add:

- more vegetables
- 1 oz (30 g) wild meat
- ½ cup (125 ml) whole wheat spaghetti and ¼ cup (50 ml) tomato sauce

Dinner (Supper)

- Wild meat stew (2 cups/500 ml)
- Whole wheat bun (1)
- Margarine (1 tsp/5 ml)
- Tossed salad
- Low-fat dressing (1 tbsp/15 ml)
- Low-fat milk (1/2 cup/125 ml)
- Tea or coffee and/or water



For larger appetites add:

- more vegetables
- ½ cup (125 ml) wild meat stew
- ½ cup (125 ml) low-fat milk

If you include snacks in your day, try:

- ✓ 1 piece of whole wheat toast with 1 tbsp (15 ml) peanut butter
- ✓ ¼ cup (50 ml) roasted, unsalted almonds
- ✓ 1 medium apple or banana with 1 oz (30 g) of low-fat cheese
- ✓ ¾ cup (175 ml) low-fat yogurt
- ✓ whole grain crackers (8) with 1 oz (30 g) low-fat cheese
- ✓ ½ cup (125 ml) whole grain cereal with low-fat milk

Active Living

Active living is anything that will get you moving such as walking, dancing, or working in the yard.

Benefits of Active Living

- Helps you deal with stress
- Improves your blood sugar, blood pressure, and cholesterol
- Uses up extra sugar in your blood and helps your own insulin work better
- Makes you feel more energetic
- Makes your heart and bones stronger
- Helps blood flow and builds muscles
- Keeps your body and your joints flexible
- Helps control weight
- Better sleep

Being active is good for your physical and mental health.

You can be active without going to the gym, playing sports or using fancy equipment.

**Active living begins with a single step.
It's never too late to improve your level of fitness!**



Suggestions for Active Living

- Start slowly, listen to your body
- Choose activities you enjoy and can see yourself doing long term
- Set realistic and achievable goals
- Walk whenever you can:
 - » park the car farther away
 - » walk to do your errands
 - » take the stairs
 - » walk the halls of your building
 - » take a nature walk
- Reduce long periods of sitting or reduce screen time
- Move more - stretch for a few minutes every hour
- Check out the fitness programs and services in your community and see if anything interests you
- Use an app or device to track your activity
- Start with the activities you are doing now, but do them more often
- Be active with a friend who is already active / find an activity buddy



Every minute counts!

- Try to build up to 10 minutes at a time.
- Aim for 30-60 minutes of activity every day.

If you have not exercised much in the past, talk to your health care provider to make sure it's safe for you to start.

Types of Exercise

Aerobic, flexibility and resistance exercise keep your body healthy.

Aerobic Exercise (work up to 150 minutes each week).

Helps your heart and lungs by increasing your heart rate and breathing.

- Walking
- Bicycling
- Dancing
- Skating
- Swimming

Try to do
some activity
each day.

Resistance Exercise (aim for 10 minutes 2 to 3 times per week).

Helps your muscles and bones stay strong and improves your posture.

- Cutting wood
- Shovelling snow
- Raking and carrying leaves
- Body weight exercises like push-ups
- Band exercises
- Lifting weights

Flexibility Exercise

(daily). Helps you move easily, keeping your muscles relaxed and your joints mobile.

- Stretching
- Yoga, Pilates, Tai Chi
- Bowling
- Curling
- Golfing



Taking Medication

Staying healthy with diabetes is about you taking control. In addition to choosing healthy foods and increasing your activity level, medications may be needed to help you reach your targets for blood sugar, blood pressure, cholesterol and decrease your risk of heart disease.

- Keep your medication record up to date
- Over time your medications may change
- Know the **right amount** and the **right time** to take your medications
- Talk with your health care provider to make sure you understand your medications
- Ask if any medication has been added, stopped or changed and why
- If you feel you are doing all that you can and your blood sugar, blood pressure and cholesterol remain high – talk to your health care provider about your medications

The medications used to treat Type 2 Diabetes work on different organs:

- ✓ Liver
- ✓ Pancreas
- ✓ Muscle
- ✓ Kidneys
- ✓ Intestines
- ✓ Fat Tissue
- ✓ Stomach
- ✓ Heart

Do not feel that you have failed when you need to change your medications.

There are many financial costs for the person living with diabetes. Talk to your pharmacist about assistance that may be available.

Blood Glucose Monitoring

Why Should I Check My Blood Glucose Levels?

- Checking your blood glucose helps put you in control of your diabetes.
- It helps you understand how food, activity, and medications affect your blood glucose.
- Blood glucose monitoring helps you work with your health care team.

**Monitoring
assists you in
managing your
diabetes**

How Do I Check My Blood Glucose Levels?

A blood glucose meter is used to check your blood glucose. Meters are available at most pharmacies or diabetes education centres. A pharmacist, pharmacy technician, or diabetes educator can teach you how to use your meter.

Ask your diabetes educator, pharmacist, or pharmacy technician about:

- Where and how to poke your finger
- How to check if the meter is accurate
- What to do with used lancets
- Always wash your hands before testing
- Remember to change lancets each time you check your blood.

Always wash your hands before testing and remember to change lancets each time you check your blood.

When and How Often Do I Check?

The number of times you check your blood sugar depends on your treatment plan. It is recommended that you regularly record results in your logbook. To start, check your blood sugar one day per week.

Suggested times to check are:

- Mornings
- Before a meal or 2 hours after a meal
- At bedtime

In your log book record:

- Your blood glucose result
- The time of day you checked
- Add comments about your day – activities, stress, food, illness

Remember, how often you check your blood sugar should be decided with your health care provider.

Increase your blood glucose checking if:

- Your blood sugar is too high or too low
- You become ill or are stressed
- There are changes to your food choices, activity level or medication
- You are using insulin



Blood Glucose Targets

- Between 4 – 7 mmol/L first thing in the morning
- Between 4 – 7 mmol/L before eating
- Between 5 – 10 mmol/L two hours after eating

Individual targets may be recommended by your health care provider.

High Blood Sugar

What is high blood sugar?

- Blood sugar that is higher than your target range

When it might happen:

- You are ill
- You are under stress
- Your medications, eating and activity are not in balance

How you may feel:

- Tired
- Thirsty
- Urinate more than usual
- Blurred vision

What to do when your blood sugars are often higher than 10 mmol/L:

- Talk to your doctor, nurse practitioner or pharmacist as medications may need to be changed
- See a diabetes educator
- Increase your physical activity
- Review “Healthy Eating” pages

What to do when you are sick

If you use insulin or some diabetes medications, you need to keep a close check on your blood sugars when you are ill. You may need to:

- ✓ Check your blood sugars every 2-4 hours.
- ✓ Continue to take your diabetes medication and/or insulin.
- ✓ Drink plenty of fluids with minimal sugar.
- ✓ Consume some carbohydrate every hour - try juice or regular pop if you cannot eat.
- ✓ Call your health care provider or go to a medical centre if you vomit more than twice in 12 hours, have diarrhea, or if you feel you need to discuss your illness.

Low Blood Sugar

What is a low blood sugar?

- Blood sugar less than 4 mmol/L

When it might happen?

- You ate less than you should have or later than normal
- You are more active than planned
- You took more medication than planned
- You drank alcohol in the past 24 hours

How you may feel:

- You may feel shaky, light-headed, nervous, irritable, confused, hungry, sweaty, headachy, weak, numb around lips/mouth.

What do you do?

1. Eat or drink one fast acting sugar choice:
 - ✓ 15 g of glucose in the form of glucose tablets
 - ✓ 1 tbsp (15 ml) sugar, honey or syrup
 - ✓ 2/3 cup (150 ml) of juice or regular pop
2. Wait 10 to 15 minutes; check your blood sugar again.
 - ✓ If it is still low (less than 4 mmol/L), treat again with a fast acting sugar choice
 - ✓ Continue to treat until blood sugar is greater than 4 mmol/L
3. If your next meal is more than 1 hour away, or you are going to be active, eat a snack, such as one of the following:
 - ✓ ½ meat/fish sandwich
 - ✓ 6 soda crackers and cheese
 - ✓ 1 slice of toast with peanut butter

If you experience low blood sugar, you need to treat it immediately!

Important Tests for Good Basic Care

The following are important tests for diabetes care. You may need some tests more often than indicated below. Know what tests are recommended and talk to your health care provider about these tests.

| When | Test |
|---------------------------------------|---|
| At diagnosis | <ul style="list-style-type: none"> • Kidney tests: test performed at the lab • Eye examination through dilated pupils by an eye specialist • Foot examination to check for nerve damage and other problems • Questions about your ability to get and maintain an erection • Experiencing foot and leg pain when walking • Cholesterol and other blood fat tests |
| Approximately every 3 months | <ul style="list-style-type: none"> • A1C • Blood pressure • Review of home blood sugar monitoring record |
| Every year | <ul style="list-style-type: none"> • Foot examination at least once a year and sooner for skin wounds or sores that don't heal quickly • Kidney tests • Meter check against a lab fasting blood glucose test • Eye examination by an eye specialist or optometrist – more often if eye disease is present • Cholesterol and other blood fats tests |
| Regularly | <ul style="list-style-type: none"> • Questions about depression and/or anxiety • Self check of feet • Blood pressure |
| Every 3 to 5 years if required | <ul style="list-style-type: none"> • ECG (heart test) if over 40 or if you are at risk of heart disease |

Contact Information and Resources

To find a Diabetes Educator:

- Call your local Health Office
- Call HealthLine @ 811
- On Reserve, call your local Community Health Clinic or Tribal Council
- Ask your doctor, nurse practitioner, dietitian, nurse educator or pharmacist

To find a Live Well™ with Chronic Conditions Program call HealthLine @ 811.

For Diabetes Information Contact:

- Diabetes Canada 1-800-BANTING (1-800-226-8464) www.diabetes.ca
- CDA North Saskatchewan Regional Leadership Centre 1-800-996-4446
- CDA South Saskatchewan Regional Leadership Centre 1-800-297-7488
- Saskatchewan HealthLine @ 811 www.healthlineonline.ca
- First Nations Inuit Health www.canada.ca/en/indigenous-services-canada/services/first-nations-inuit-health.html
- National Aboriginal Diabetes Association 1-877-232-6232 www.nada.ca

Websites:

- Dietitians of Canada www.dietitians.ca
- Heart and Stroke Foundation www.heartandstroke.ca
- Health Canada-Canada's Food Guide www.healthcanada.gc.ca/foodguide
- Saskatchewan In Motion www.saskatchewaninmotion.ca
- International Diabetes Federation www.idf.org
- Kidney Foundation of Canada www.kidney.ca
- Saskatchewan Ministry of Health <https://www.saskatchewan.ca/government/government-structure/ministries/health>
- Saskatchewan Prevention Institute (focus on healthy children) www.skprevention.ca

Remember, the more you learn about diabetes the better able you are to take charge of your diabetes.