



# Living with Diabetes

**What you should know**

# Living Well With Diabetes – What you should know

Whether you've been living with diabetes for a long time or are newly diagnosed, it's important that you have as much information as possible to better understand your condition and what you can do to manage your diabetes.

There are many things you can do well – like eating healthy and being physically active – and this guide aims to provide you with some introductory information you need to know to live a full, healthy life with diabetes. This guide is not intended to replace other diabetes education that can be provided by your local health care provider or diabetes education program.

Remember to talk to your health care team about your diabetes and diabetes management, including blood sugar, blood pressure and cholesterol levels. For additional information, visit [www.diabetes.ca](http://www.diabetes.ca) or call Diabetes Canada at 1-800-BANTING (226-8464).

*The diabetes information in this guide was provided by [Diabetes Canada](#) and the [Ministry of Health](#).*

## About Diabetes Canada

Diabetes Canada works in communities across the country to promote the health of Canadians and reduce diabetes through their strong nationwide network of volunteers, employees, health care professionals, researchers, partners and supporters. In the struggle against this global epidemic, Diabetes Canada's expertise is recognized around the world.

The 2018 Diabetes Canada Clinical Practice Guidelines are based on clinical evidence and are intended to support good health care decisions using the most current data available. Recognized internationally, these guidelines provide recommendations on screening, prevention, diagnosis, education, care and management of diabetes.

## Goals and Objectives

This guide will educate and inform people living with diabetes about diabetes services in the Central East LHIN and the 2018 Diabetes Canada Clinical Practice Guidelines

For more information, visit the Central East LHIN website – [www.centraleastlhin.on.ca](http://www.centraleastlhin.on.ca).

# Table of Contents

Diabetes: An Introduction .....	4
Diabetes: Essential Information .....	6
Diabetes: Gestational Diabetes .....	8
Diabetes: Prediabetes .....	9
Diabetes: Just the Basic .....	10
Diabetes Management: Blood Glucose .....	11
Diabetes: Healthy Eating .....	12
Diabetes Management: Managing Weight and Diabetes .....	13
Diabetes Management: Lifestyle Tips for a Healthy Weight .....	14
Diabetes Management: Physical Activity .....	15
Diabetes Management: Cholesterol Control .....	16
Diabetes Management: Alcohol and Diabetes .....	17
Diabetes Management: Foot Care .....	18
Diabetes Management: Healthy Eyes .....	19
Diabetes: Mental Health & Wellness .....	20
Managing My Diabetes: My Action Plan .....	21
Additional Diabetes Services .....	23
Diabetes Education Program Locations by Sub-region .....	24
Central East LHIN Self-Management Program .....	25

# Diabetes: An Introduction

There are three major types of diabetes. Type 2 diabetes is the most common diagnosis, followed by type 1 diabetes. Gestational diabetes occurs during pregnancy, and is usually temporary. In addition, prediabetes is another important diagnosis that indicates an elevated risk of developing diabetes.

## Type 1 Diabetes

Type 1 Diabetes is generally diagnosed in childhood and adolescence and it occurs when the pancreas is unable to produce insulin, a hormone that ensures the body's energy needs are met.

## Type 2 Diabetes

Type 2 Diabetes usually develops in adulthood, although increasing numbers of children in high-risk populations are being diagnosed. It occurs when the pancreas does not produce enough insulin or when the body does not effectively use the insulin that is produced.

## Gestational Diabetes

Gestational Diabetes is a temporary condition that occurs in approximately 2-4% of all pregnancies. If a pregnant woman is diagnosed with gestational diabetes, both she and her child have an increased risk of developing diabetes in the future.

## Is Diabetes Serious?

If diabetes is left untreated or not managed properly, diabetes can result in a variety of complications, including but not limited to:

- Heart disease
- Kidney disease
- Eye disease
- Foot Disease
- Problems with erection (impotence)
- Nerve damage

Risk Factors for Type 2 Diabetes	
Being	<ul style="list-style-type: none"><li>• A member of a high-risk group (African, Arab, Asian, Hispanic, Indigenous or South Asian descent, low socioeconomic status).</li><li>• Overweight (especially if you carry most of your weight around your middle).</li></ul>
Having	<ul style="list-style-type: none"><li>• A parent, brother or sister with diabetes.</li><li>• Health complications that are associated with diabetes.</li><li>• Giving birth to a baby that weighed more than 4 kgs (9 lbs).</li><li>• Had gestational diabetes (diabetes during pregnancy).</li><li>• Prediabetes (impaired glucose tolerance or impaired fasting glucose).</li><li>• High blood pressure.</li><li>• High cholesterol or other fats in the blood.</li><li>• Being diagnosed with any of the following conditions:<ul style="list-style-type: none"><li>• Polycystic ovary syndrome</li><li>• Acanthosis nigricans (darkened patches of skin).</li><li>• Psychiatric disorders (schizophrenia, depression, bipolar disorder)</li><li>• Obstructive sleep apnea.</li><li>• You use glucocorticoids.</li></ul></li></ul>
If any of the above risk factors apply, you should be tested earlier and/or more often. Ask your family physician if you should be tested.	

## What are the symptoms of diabetes?

The signs and symptoms of diabetes include:

- Unusual thirst
- Frequent urination
- Weight change (either gain or loss)
- Extreme fatigue or lack of energy
- Blurred vision
- Frequent or recurring infections
- Cuts and bruises that are slow to heal
- Tingling or numbness in the hands or feet
- Trouble getting or maintaining an erection

# Diabetes: An Introduction

## Can you prevent diabetes?

Almost 1.5 million Ontarians have diabetes. The good news is that many people with identified risk factors can delay or prevent the development of type 2 diabetes by eating a balanced diet, exercising regularly, maintaining a healthy weight, and managing blood glucose levels.

## How is diabetes managed?

People living with diabetes can expect to live an active, independent and vibrant life if they make a lifelong commitment in taking control of their diabetes. Below is a list of ways to live well with diabetes.

### Education

Diabetes education is an important first step. All people living with diabetes need to be informed about how to best manage their diabetes.

### Physical Activity

Regular physical activity helps your body lower blood glucose levels, promotes weight loss, reduces stress and enhances overall fitness.

### Nutrition

What, when and how much you eat all play an important role in regulating blood glucose levels.

### Weight Management

Maintaining a healthy weight is especially important in the management of Type 2 diabetes.

## Medication

Type 1 diabetes is always treated with insulin. Type 2 diabetes is managed through physical activity and meal planning and may require medications and/or insulin to assist your body in controlling blood glucose more effectively.

## Lifestyle Management

Learning to reduce stress levels in day-to-day life can help people better manage their diabetes.

## Blood Pressure

High blood pressure can lead to eye, heart, and kidney disease as well as strokes. People with diabetes should try to maintain a blood pressure level below 130/80 mm Hg. To do this, you may need to change your eating and physical activity habits and/or take medication.

## Routine Tests for People with Diabetes

**HbA1C blood test:** this test measures sugar control, and should be administered at least once every six months

**LDL-C blood test:** this test measures your “bad” cholesterol, and should be administered at least once a year

**Retinal eye exam:** this test helps you understand how diabetes affects your eyes and should be completed at least once a year

**It is also important to monitor your blood pressure regularly and have your feet checked by a health care provider frequently.**

# Diabetes: Essential Information

When you or someone you care about is diagnosed with diabetes, you may experience a range of emotions – from feeling scared and angry to shocked and over-whelmed. These are all normal. Learning as much as you can about diabetes will help address your questions and concerns. This guide is a great place to start.

## What is Type 1 diabetes?

Type 1 diabetes occurs when the pancreas does not produce any insulin. Insulin is a hormone that helps your body to control the level of glucose (sugar) in your blood. Without insulin, glucose builds up in your blood instead of being used for energy. Your body produces glucose and also gets glucose from foods like bread, potatoes, rice, pasta, milk and fruit. The cause of Type 1 diabetes remains unknown and is not preventable.

## Insulin therapy

Insulin therapy is required for the treatment of Type 1 diabetes. Insulin is injected by pen, syringe or pump. Your doctor will work with you to determine:

- The number of insulin injections you need per day.
- The timing of your insulin injections.
- The dose of insulin you need with each injection.

The insulin treatment your doctor prescribes will depend on your goals, age, lifestyle, meal plan, general health and motivation. Refer to the Financial Assistance Program section of the booklet.

## What is Type 2 diabetes?

Type 2 diabetes occurs when the pancreas does not produce enough insulin, or your body does not properly use the insulin it makes. As a result, glucose builds up in your blood, instead of being used for energy. Your body gets glucose from foods like bread, potatoes, rice, pasta, milk and fruit. To use this glucose, your body needs insulin.

## The Good News

You can live a long and healthy life by keeping your blood glucose levels in the target range set by you and your health care provider. You can do this by:

- Eating healthy meals and snacks.
- Enjoying regular physical activity.
- Monitoring your blood glucose using a home blood glucose meter.
- Aiming for a healthy body weight.
- Taking diabetes medications including insulin and other medications, if prescribed by your doctor.
- Managing stress effectively.

Discuss with your health care provider how often you should measure your blood glucose level.



# Diabetes: Essential Information

## Complications of diabetes

Type 2 diabetes is a progressive, life-long disease. Over time it may become more difficult to keep your blood glucose levels within your target range. High blood glucose levels can cause complications such as blindness, heart disease, kidney problems, nerve damage and erectile dysfunction. Fortunately, good diabetes care and management can prevent or delay the onset of these complications.

You can reduce your chances of developing these complications if you:

- Keep your blood glucose within your target range.
- Avoid smoking.
- Keep your cholesterol and other blood fats within your target range.
- Keep your blood pressure within your target range.
- Take care of your feet.
- Have regular visits with your doctor, diabetes team, dentist and eye-care specialist.

Testing your blood glucose regularly is an important part of your daily diabetes care. Speak to your diabetes educator or physician to learn more.

Remember, you are the most important member of your health care team.

## Get the support you need

There are resources available to help you cope with your specific diabetes management:

- Speak with your primary care physician or health care professional.
- Contact your local diabetes education program (see page 24).
- Talking to others who have diabetes or who are caring for family members with diabetes.
- Asking your local [\*\*Diabetes Canada\*\*](#) branch about attending an information session or joining a peer support group.



# Diabetes: Gestational Diabetes

Between 2-4% of pregnant woman develop Gestational Diabetes Mellitus (GDM). All pregnant women should be screened for GDM within 28 weeks of pregnancy.

## What is GDM?

GDM is a type of diabetes that begins during pregnancy. Your body cannot produce enough insulin to handle the effects of a growing baby and changing hormone levels. Insulin helps your body to control the level of glucose in your blood. If your body cannot produce enough insulin, your blood glucose levels will rise.

## What does GDM mean for my baby?

If left undiagnosed or untreated, GDM can lead to high blood glucose levels. This increases the risk that your baby will weigh more than 4 kg (9lbs) and may have a difficult delivery. GDM can also increase the risk of your baby becoming overweight and developing Type 2 diabetes in the future.

## What does GDM mean for me?

A diagnosis of GDM means you will be working closely with your health care team to manage your blood glucose levels and keep them in the target range. After your baby is born, blood glucose levels will usually return to normal. However, you are at greater risk for GDM in your next pregnancy and of developing Type 2 diabetes in the future.

## How is GDM managed?

Maintaining a healthy diet. Enjoy foods from all four of the food groups and spread out your foods by eating smaller meals and snacks. This will help you manage your blood glucose levels and provide the best nutrition for you and your growing baby.

## Achieve a normal weight gain

The amount of weight you gain will vary depending on your weight before your pregnancy. Weight loss is not recommended. Talk to your health care provider about appropriate weight gain for you.

## In addition

- Be physically active.
- Check your blood glucose at home.
- Take insulin, if needed.
- Follow up with your diabetes care team after the baby is born.



# Diabetes: Prediabetes

Wouldn't it be nice if the human body had an "early alert system" that advised us when something was about to go wrong with our health? Prediabetes offers a warning and gives us a chance to change the future.

## Prediabetes

Prediabetes refers to blood glucose levels that are higher than normal, but not yet high enough to be diagnosed as Type 2 diabetes. Although not everyone with prediabetes will develop Type 2 diabetes, many people will. It is important to know if you have prediabetes, because research has shown that some long-term complications associated with diabetes – such as heart disease – may begin during prediabetes.

## Get tested regularly

Like Type 2 diabetes, prediabetes can occur without you knowing it, so being aware of your risks and being tested are important. This is especially true if you:

- have prediabetes as part of the "metabolic syndrome," meaning you also have high blood pressure,
- high levels of Low-Density Lipoproteins (LDL) cholesterol (the "bad" cholesterol) and triglycerides,
- low levels of High-Density Lipoprotein (HDL) cholesterol (the "good" cholesterol) and
- excess fat around the waist.

The risk for Type 2 diabetes is higher as you grow older, so Diabetes Canada recommends screening by testing fasting plasma glucose for everyone once they reach age 40 and every three years after that. If you have risk factors that increase the likelihood of developing Type 2 diabetes, you should be tested more frequently or start regular screening earlier.

## Change your lifestyle, change your future

Research has shown that if you take steps to manage your blood glucose levels when you have prediabetes, you can delay or prevent Type 2 diabetes from developing. You may be able to reduce blood glucose levels with simple lifestyle changes, such as increasing your physical activity and enjoying a healthy, low-fat meal plan.

Losing even a modest amount of weight (5 to 10% of total body weight) through healthy eating and regular physical activity – such as walking 30 minutes a day, five days a week – can make a huge difference to your health and quality of life.

The important thing to remember about prediabetes is that it doesn't always lead to diabetes. Taking steps to manage your blood glucose gives you a chance to change your future to one that does not include Type 2 diabetes.

# Diabetes: Just the Basic

Diabetes is a condition in which your body cannot properly use and store food for energy. The fuel that your body needs is called glucose. To control your blood sugar you will need to eat healthy foods, be active and you may need to take medication and/ or insulin.

Here are some tips to help you until you see a registered dietitian.

*A Registered Dietitian can answer your questions and help you develop a personalized meal plan that includes your favourite foods.*

Tips	Reasons
Eat three meals per day at regular times and space meals no more than six hours apart. You may benefit from a healthy snack.	Eating at regular times helps your body control blood glucose levels.
Limit sugars and sweets such as sugar, regular pop, desserts, candies, jam and honey.	The more sugar you eat, the higher your blood glucose will be. Artificial sweeteners can be useful.
Limit the amount of high fat food you eat such as fried foods, chips and pastries.	High fat foods may cause you to gain weight. Carrying additional weight impacts blood glucose control as well as puts a strain on your heart.
Eat more high fiber foods such as whole grain breads and cereals, lentils, dried beans and peas, brown rice, vegetables and fruits.	Foods high in fiber may help you feel full and may lower blood glucose and cholesterol levels.
If you are thirsty, drink water.	Drinking regular pop and fruit juice will raise your blood glucose.
Add physical activity to your lifestyle.	Regular physical activity will improve your blood glucose control.

# Diabetes Management: Blood Glucose

## Blood glucose overview

People with diabetes cannot properly use and store glucose, which is needed for energy. The amount of glucose in your blood at a given time is referred to as your blood glucose and it is critical to managing your diabetes.

You should check your blood sugar levels regularly to:

- Obtain a quick measurement of your blood sugar level at a given time.
- Determine if you have a high or low blood sugar level at a given time.
- Learn how your lifestyle and medication affect your blood sugar levels.
- Enable you and your health care team to make the lifestyle and medication changes that will improve your blood sugar levels.

Blood Sugar Levels	
Very Low Blood Sugar	Less than 2.8 mmol/L
Low Blood Sugar (hypoglycemia)	Less than 4 mmol/L
Normal	Between 4mmol/L – 10mmol/L
High Blood Sugar (hyperglycemia)	Is at or above 11 mmol/L

If you are experiencing any of the below signs and symptoms, you should speak with your health care professional:

## Signs & Symptoms of very low blood sugar:

- Confused and disoriented
- Lose consciousness
- Have a seizure

## Signs & Symptoms of low blood sugar:

- Shaky, light-headed, nauseated
- Nervous, irritable, anxious
- Confused, unable to concentrate
- Hungry
- An increase in heart rate
- Sweaty, headachy
- Weak, drowsy
- Numbness or tingling on your tongue or lips

## Signs & Symptoms of high blood sugar:

- Be tired
- Feel thirsty
- Urinate more often than usual, especially during the night

# Diabetes: Healthy Eating

Diabetes Canada recommends that all people with diabetes should receive advice on nutrition from a registered dietitian. Good management of diabetes includes healthy eating, staying active and taking required medication. Be sure to eat breakfast. It provides a good start to the day. Healthy eating will help keep your blood glucose within its target range and is critical to successfully managing your diabetes.

For more information, please refer to Canada's Food Guide.

## **Start by making healthy food choices, including:**

- Enjoy a variety of vegetables, fruits, whole grains, protein foods as directed by your health care team.
- Choose protein foods that come from plants more often.
- Include high fiber foods such as whole grain breads and cereals, fresh fruits, vegetables and legumes, and grains (e.g. pasta, rice).
- Choose starchy foods such as whole grain breads and cereals, rice, noodles or potatoes at every meal. Starchy foods are broken down into glucose which your body needs for energy.
- Make lower-fat choices – for example, use skim milk, lean ground beef and only small amounts of oil and salad dressings, and trim fat on meat. This will help control your weight and blood cholesterol.
- Include fish, lean meats, low-fat cheeses, eggs or vegetarian protein choices as part of your meal.
- Alcohol can affect blood sugar levels and cause you to gain weight. Talk to your health care professional about whether you can include alcohol in your meal plan and how much is safe.
- Be sure to read the ingredient list on food packages and check the nutrition label to get the full details of what you are eating.
- Replace sugary drinks with water
- Limit highly processed foods. If you choose these foods, eat them less often and in small amounts.

# Diabetes Management: Managing Weight and Diabetes

Here are some tips for a healthy lifestyle for adults.

## A healthy lifestyle and a healthy weight can

- Help you prevent or manage diabetes.
- Improve blood glucose, blood pressure and blood lipids (fats).
- Reduce the risk of complications, such as heart disease and stroke.
- Improve general well-being and energy levels.

Healthy eating and physical activity are key lifestyle factors in managing weight. Many things can make managing weight a challenge including stress, low income levels, some medical conditions and certain medications.

## Who can help me?

There are many health care providers (e.g. dietitian, doctor, diabetes educator, pharmacist, and exercise physiologist) who can help you. Check with your Primary Care Provider before taking any weight loss medications, supplements, starting intense exercise or changing your diet.

## A healthy weight can be measured in many ways including:

### Body Mass Index (BMI)

Compares a person's weight to their height. For most adults aged 18 to 64, a BMI of 25 or higher is overweight.

### Waist Circumference (WC)

Is also important. It is the measurement around the waist. Too much fat around the waist (apple shape) is linked to health problems such as heart disease and high blood pressure. WC goals differ depending on ethnic background and gender. In general, a healthy WC for men is less than 40 in (102 cm) and for women it is less than 35 in (88 cm).

If you are overweight, losing 5 to 10% of your current body weight at a rate of 2 to 4 lbs (1 to 2 kg) per month is a healthy goal. For someone who is 200 lbs (90 kg), 5 to 10% is 10 to 20 lbs (4.5 to 9 kg).



***Believe in yourself - each person's body has its own size and shape.***

***Feel good about yourself and the lifestyle changes you make.***

***Remember to think long- term, but make changes gradually.***

# Diabetes Management: Lifestyle Tips for a Healthy Weight

The key to reaching and staying at a healthy weight is to make lifestyle changes you can live with. Set realistic goals. Make one or two small changes at a time. When these changes are part of your daily routine, add new ones.



Goal	Tips
Build exercise into your day	Exercise helps muscles use glucose and burn calories. Do aerobic exercises such as brisk walking, skiing, or biking for at least 150 minutes each week (e.g. 30 minutes, five days a week). If you can, increase the amount of time and intensity gradually. Add resistance exercises like lifting weights at least two times a week. Check with your doctor before starting.
Eat only when hungry	Ask yourself if you are really hungry. Avoid eating out of habit, boredom or for emotional reasons. Try to figure out what it is that you really need.
Create a healthy eating environment	Serve foods in the kitchen rather than at the table. Eat at the table rather than in front of a screen (TV or computer). Eat slowly. It takes your brain about 20 minutes to realize that your stomach is full.
Eat regular balanced meals	Eating three meals a day reduces overeating. Start with a healthy breakfast. Each food group is important. Meals should be spaced four to six hours apart.
Eat fiber-rich foods	High fiber foods may help to keep you feeling full longer. Whole grains, vegetables, fruits and legumes (dried beans and lentils) are high in fiber.
Choose healthy beverages and snacks	Satisfy thirst with water. Pop, sweetened hot or cold drinks, juice and alcohol can add many unwanted calories. Small snacks can help control hunger. Keep pre-cut vegetables and washed fruit handy for easy snacking. Avoid fried, salty and sugary snacks.

# Diabetes Management: Physical Activity

Physical activity benefits everyone – regardless of whether or not you have diabetes. In addition to helping you maintain a healthy weight, staying physically active helps to strengthen your bones, improve your blood pressure, lower your chances of getting heart disease and cancer, and increases your energy levels.

## Increase your physical activity

- Build time for physical activity into your daily routine.
- Try to be active most days of the week.
- Walk whenever you can, instead of taking the car.
- Start slowly and gradually increase your effort (e.g. progress from strolling to brisk walking).
- Involve the whole family – go swimming or skating instead of watching a movie.
- Learn a new activity – like ballroom dancing, playing basketball or riding a bike.
- Enjoy your improved sense of health and well-being, and keep it up!

## What kind of activity is best?

People with diabetes can benefit from both aerobic and resistance exercise.

## Aerobic exercise

Continuous exercise, such as walking, bicycling or jogging, which elevates breathing and heart rate.

## Resistance exercise

Involves brief repetitive exercises with weights, weight machines, resistance bands or one's own body weight to build muscle strength. If you decide to begin resistance exercise, you should first get some instruction from a qualified exercise specialist, a diabetes educator or exercise resource. Start slowly.

## Keep it up!

Adopting a new routine can be hard, so be prepared with a plan in case your motivation starts to fade. For instance, you should:

- Do something you like – It's much easier to stick with an activity you enjoy!
- Have a support network of family members, friends and co-workers willing to keep you motivated by joining you for a walk or a workout at the gym.
- Set small, attainable goals and celebrate when you reach them by rewarding yourself in healthy ways.
- Seek professional help from a personal trainer or other specialist who can help you.



# Diabetes Management: Cholesterol Control

There are two types of cholesterol: low density (LDL) and high density HDL.

LDL cholesterol is referred to as 'bad' cholesterol that can form plaque or fatty deposits on your artery walls and block blood flow.

HDL cholesterol is referred to as 'good' cholesterol because it helps remove excess cholesterol from the body.

Cholesterol is naturally made by your body but is increased through your diet.

Most adults with Type 1 or Type 2 diabetes are at high risk for cardiovascular diseases such as heart attacks and strokes, even if their LDL-cholesterol is normal. If their LDL-cholesterol is elevated, they face an even higher risk.

## Have you had your cholesterol tested lately?

Adults with diabetes should have their cholesterol tested yearly or as indicated by your health care provider. More frequent testing may be necessary for people taking cholesterol medications. Always discuss your cholesterol results with your doctor and other members of your health care team.

## Have you been told that you have high cholesterol?

High cholesterol usually refers to high LDL cholesterol. The main goal is to lower LDL-cholesterol. Check with your health care provider to find out if you should be on medication to accomplish this. Weight management, healthy eating and regular physical activity will also help you reach this goal.

## Diabetes management requires good blood glucose, blood pressure and cholesterol control

That's why it's important to control your cholesterol levels in general and lower your LDL-cholesterol in particular. In addition to taking cholesterol medications as prescribed, maintaining a healthy weight, practicing healthy eating habits and participating in regular physical activity all help you manage cholesterol and reduce your risk of developing cardiovascular disease.



# Diabetes Management: Alcohol and Diabetes

There's no need to avoid alcohol if you have diabetes. It is okay to drink alcohol in moderation only if you:

- Have your diabetes under control.
- Are free from health problems that alcohol can make worse, such as other diseases of the pancreas, eye disease, high blood pressure, high triglycerides, liver problems, nerve damage or stroke.
- Know how to prevent and treat low blood glucose. Otherwise, you should speak to your diabetes educator or health care professional before drinking alcohol. Whether you have diabetes or not, drinking alcohol in moderation means no more than two drinks per day if you are a man and no more than one drink per day if you are a woman.

## Increased risks for people with diabetes

Alcohol can:

- Affect judgment.
  - Provide extra calories that can make weight loss or weight management a challenge.
  - Increase blood pressure.
  - Contribute to sexual difficulties.
  - Damage the brain and nerves.
  - Increase your triglycerides.
  - Contribute to inflammation of the pancreas.
  - Lead to dehydration – this is very dangerous in someone with high blood glucose.
  - Increase the risk of various cancers over time.
  - Increase the risk of personality change such as depression or aggression.
  - Worsen eye disease.
  - Damage your liver over time.
- Be aware that glucagon, a treatment for low blood sugar, will not work while alcohol is in your body – make sure that someone knows to call an ambulance if you pass out.
  - Drink slowly. Make your second drink without alcohol.
  - After drinking alcohol
  - Tell a responsible person that you have been drinking and ask them to check for low blood sugar symptoms.
  - Check your blood sugar before going to bed. Eat a carbohydrate snack if your blood sugar is lower than usual.
  - If you have Type 1 diabetes, be aware of the risk of morning hypoglycemia if alcohol is consumed two to three hours after the previous evening's meal.
  - Set an alarm or have a responsible person wake you up throughout the night and early morning – a delayed low blood sugar can occur anytime up to 24 hours after drinking alcohol.
  - Get up on time the next day for any food, medication or insulin you normally take. Missed medication or insulin can lead to high blood sugar, ketones and a life-threatening problem called Diabetic Ketoacidosis (DKA). DKA occurs when the body starts breaking down fat at a rate that is much too fast, causing the blood to become acidic.

## Precautions to take

Drinking alcohol can increase your risk of having low blood glucose. To reduce this risk, take the following precautions:

- Eat regular meals, take your medication(s) and check your blood sugar level frequently.
- Always have a treatment for low blood sugar with you, such as three glucose tablets, Life Savers® or 3/4 cup regular pop.
- Make sure someone with you knows your signs and symptoms of low blood sugar and how to treat it so they can help you.

# Diabetes Management: Foot Care

Diabetes affects the circulation and immune systems, ultimately impairing the body's ability to heal itself. Over time, diabetes can damage sensory nerves ("neuropathy"), especially in the hands and feet. As a result, people with diabetes are less likely to feel a foot injury, such as a blister or a cut. Unnoticed and untreated, even minor foot injuries can quickly become infected, potentially leading to major complications.

## Eight steps to better foot care

A good daily foot care routine will help keep your feet healthy. Start by assembling a kit containing nail clippers, nail file, lotion, pumice stone and non-breakable hand mirror. Follow these eight steps to healthy feet:

1. Wash your feet in warm (not hot) water, using a mild soap. Avoid soaking your feet as it will dry your skin.
2. While your feet are still wet, use a pumice stone to keep calluses under control.
3. Dry your feet carefully – especially between your toes.
4. Check both feet and between your toes thoroughly to ensure there are no cuts, cracks, ingrown toenails, blisters, etc. Use a hand mirror to see the bottom of your feet or ask someone to check them for you.
5. Clean cuts and scratches with mild soap and water, and cover with a dry dressing suitable for sensitive skin.
6. Trim your toenails straight across and file sharp edges. Don't cut the nails too short.
7. Apply an unscented lotion to your heels and soles. Don't put lotion between your toes as the excessive moisture can promote infection. Wipe off excess lotion that is not absorbed.
8. Wear clean socks and proper-fitting shoes every day. Whenever possible, wear white socks – that way, if you have a cut or sore, the drainage will be easy to see.

## Best advice

**Do** wear proper-fitting shoes. They should be supportive, have low heels (less than 5 cm high) and should not rub or pinch.

**Do** wear socks at night if your feet get cold.

**Do** elevate your feet when you're sitting.

**Do** wiggle your toes and rotate your ankles for a few minutes several times a day.

**Do** exercise regularly to improve circulation.

**Do** inspect your feet daily and in particular feel for skin temperature differences between your feet.

**Don't** wear high heels, pointed-toe shoes, open toe or open heel sandals or worn out shoes.

**Don't** wear anything tight around your legs, such as tight socks or knee-highs.

**Don't** ever go barefoot, even indoors. Consider buying a pair of proper-fitting shoes just for inside.

**Don't** put hot water bottles or heating pads on your feet.

**Don't** cross your legs for long periods of time.

**Don't** smoke – it decreases circulation and healing, and significantly increases the risks of amputation.

**Don't** have pedicures by non-health care professionals.

## When to see your doctor

- If you have any swelling, warmth, redness or pain in your legs or feet, see your doctor right away.
- At least once a year, have your doctor check your bare feet and screen you for neuropathy and loss of circulation.
- If you have any corns (thick or hard skin on toes), calluses (thick skin on bottom of feet), in-grown toenails, warts or slivers, have them treated by your doctor or a foot care specialist (such as a podiatrist, chiropodist or experienced foot care nurse). Do not try to treat them yourself.
- Take your socks off and have your feet inspected at every diabetes-related visit to your doctor

# Diabetes Management: Healthy Eyes

## Diabetes is the single largest cause of blindness in Canada

Over time, diabetes can cause changes in the retina at the back of the eye. Your retina helps you see by acting like a film projector in the back of your eye, projecting the image to your brain. The change is called retinopathy and there are a couple of different types that affect people with diabetes. The macula, which is the part of your retina that helps you to see colour, becomes swollen (macular edema) and this can cause blindness. A second complication is the growth of new weak blood vessels that break and leak blood into your eye so the retina cannot project images to your brain (proliferative diabetic retinopathy). The result is a loss of sight.

## How do I know if I have retinopathy?

In early stages there may be no symptoms, which is why it is important to have regular eye exams. Symptoms, if present, can include:

- Blurred vision
- Flashes of light in the field of vision
- Sudden loss of vision
- Blotches or spots in vision

## How can I prevent retinopathy?

The good news is that there are steps you can take to catch this complication early and prevent its progress:

- Visit your optometrist at least once per year. Your optometrist may recommend you visit more or less frequently depending on your situation.
- Maintain optimal blood glucose levels, blood pressure and blood cholesterol.
- Know your A1C (a test of your average blood glucose level over three months). Talk to your health care team about what your target should be.

## Who should be screened for retinopathy?

- Any individual older than 15 with Type 1 diabetes should be screened annually beginning five years after the onset of diabetes.
- All individuals with Type 2 diabetes should be screened at the time of diagnosis.
- Women with Type 1 or Type 2 diabetes or women with diabetes who hope to become pregnant should be screened before conception, during the first trimester, as needed during pregnancy and within the first year post-partum.



# Diabetes: Mental Health & Wellness

People with diabetes are often overwhelmed or frustrated by the burdensome demands of managing their chronic disease. You may feel angry, guilty, frightened, discouraged, depressed, and unmotivated. For these reasons, people with diabetes are at a greater risk of mental illness. It is important to let your health care provider know if you are aware of any mental health issues or if you are experiencing any signs and symptoms.

## Common feelings about diabetes:

### Shock/Denial:

You may feel overwhelmed, confused and perhaps a bit numb by your diagnosis. Recognizing that diabetes will play an important role in your life is a major step towards accepting your condition.

### Anger:

You may feel that it is not fair that you have to deal with diabetes; you may resent the healthy behavior changes that are an important part of diabetes management. Anger can also be a consequence of low blood glucose (sugar) levels.

### Depression:

Although a period of grieving is normal with the diagnosis of any chronic disease, prolonged sadness may be a sign of depression. Depression can lead to poorer self-care, poor blood glucose control, health complications, decreased quality of life and psychological well-being, and increased family problems.

## Signs & Symptoms of depression:

- Feeling tired most of the time
- Changes in sleeping patterns
- Changes in eating habits
- Having trouble making decisions
- Feeling hopeless or helpless

## Anxiety:

Anxiety disorders cause excessive or unrealistic anxiety and worry about life circumstances, usually without a readily identifiable cause. You may be afraid because you don't know very much about diabetes and you are not sure what is going to happen next. Learning about diabetes through this guide and talking with your health care provider will help you take charge of your health by learning about diabetes and understanding how you can postpone or prevent complications.

Signs & Symptoms of anxiety can vary in combination or severity. They may include:

- Restlessness
- Feeling of being tense or on edge
- Difficulty concentrating
- Fatigue
- Irritability
- Impatience
- Being easily distracted
- Muscle tension
- Trouble falling asleep or staying asleep
- Excessive sweating
- Shortness of breath
- Stomach ache
- Diarrhea
- Headache

# Managing My Diabetes: My Action Plan

This Action Plan is personal and can be customized to fit your own needs for diabetes management. It is important that you continue to look back and update your goals as you become more comfortable with managing your diabetes.

<b>Date:</b>
<b>The change I want to make happen is:</b>
<b>My goal for the next month is:</b>
<b>Action Plan:</b> (The specific steps I will take to reach my goal (what, when, where, how often))
<b>Things that could make it difficult to achieve my goal:</b>
<b>My plan for overcoming these challenges are:</b>
<b>Support and resources I will need</b>
<b>How important is it to me that I achieve my goal?:</b> (Scale of 0 to 10, with 0 being not important at all and 10 being extremely important)
<b>How confident am I that I can achieve my goal?:</b> (Scale of 0 to 10, with 0 being not confident at all and 10 being extremely confident)
<b>Follow-up date:</b>

# Managing My Diabetes: My Action Plan

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<b>Follow-up date:</b>



# Additional Diabetes Services

## Centralized Diabetes Intake (CDI) and Referral

CDI is provided by the Central East LHIN to connect patients living with or at risk of developing diabetes to Diabetes Education Programs (DEPs) or Centre for Complex Diabetes Care (CCDC). The Central East LHIN CDI Care Coordinator will determine the need for DEP or CCDC services. Together, the patient and Care Coordinator choose the most appropriate location for diabetes services.

CDI offers access as appropriate to other helpful services and resources, such as Central East LHIN Home and Community Care Services, Health Care Connect (for those without a Primary Care Provider), Telehomecare, Self-Management Programs, and others.

## How to Access Centralized Diabetes Intake

Health care providers can refer patients to CDI by completing the Central East Centralized Diabetes Intake Referral Form, found on the Central East LHIN Home and Community Care website by entering CDI in the search bar.

[www.healthcareathome.ca/centraleast](http://www.healthcareathome.ca/centraleast)

Fax the completed form to: 905-444-2544 or 1-844-731-2161.

Patients, caregivers or health service providers can call 1-888-997-9996 to be connected with a Central East LHIN Home and Community Care Coordinator who will facilitate the referral.

## Central East Diabetes Education Programs (DEP)

The Central East DEPs provide access to basic to intermediate level diabetes education services for people living with diabetes or prediabetes, group classes or individual counselling, education on self-managing their diabetes and preventing/delaying the onset of diabetes-related complications, and diabetes education teams which includes a nurse and dietitian.

## Central East Centre for Complex Diabetes Care (CCDC)

The Central East CCDC was established to assess and support clients with diabetes who have complex needs, such as co-morbid health conditions that require intensive case management. The CCDC offers a single point of access to a specialized inter-professional team. It is a care delivery model for people with diabetes who need more contact, more resources and more

follow-up across health care and social services systems. Care is provided over a shorter term, patient-centered, goal specific and allows for frequent follow-up.

The Central East LHIN completes the referral and assessment of clients for the CCDC. There are three care delivery sites in the Central East region located at:

- Peterborough Regional Health Centre
- Lakeridge Health– Whitby
- Scarborough Health Network– General

# Diabetes Education Program Locations by Sub-region

## Durham North East

### **Brock Community Health Centre (CHC)**

468 Main Street East  
Beaverton, L0K 1A0  
Tel: 705-432-2446  
[www.brockchc.ca](http://www.brockchc.ca)

### **Lakeridge Health (LH) - Port Perry**

451 Paxton Street  
Port Perry, L9L 1L9  
Tel: 905-576-8711 X 3726  
[www.lakeridgehealth.on.ca](http://www.lakeridgehealth.on.ca)

### **LH - Bowmanville**

47 Liberty Street South  
Bowmanville, L1C 2N4  
Tel: 905-623-3331 X 1247

### **Markham Stouffville (Uxbridge Cottage) Hospital**

4 Campbell Drive  
Uxbridge, L9P 1S4  
Tel: 905-852-9771  
[www.msh.on.ca](http://www.msh.on.ca)

## Durham West

### **Charles H. Best Diabetes Centre (Type 1 only)**

360 Columbus Road East  
Whitby, L1M 1Z5  
Tel: 905-620-0360  
[www.charleshbest.com](http://www.charleshbest.com)

### **LH - Whitby**

300 Gordon Street  
Whitby, L1N 5T2  
Tel: 905-668-6831  
[www.lakeridgehealth.on.ca](http://www.lakeridgehealth.on.ca)

### **Carea CHC**

115 Grassmere Avenue  
Oshawa, L1H 3X6  
Tel: 905-723-0036  
[www.ochc.ca](http://www.ochc.ca)

### **LH - Ajax Pickering**

580 Harwood Avenue South  
Ajax, L1S 2J4  
Tel: 905-683-2320  
[www.rougevalley.ca](http://www.rougevalley.ca)

## Northumberland County

### **Campbellford Memorial Hospital**

146 Oliver Road  
Campbellford, K0L 1L0  
Tel: 705-653-1140  
[www.cmh.ca](http://www.cmh.ca)

### **Port Hope CHC**

99 Toronto Road  
Port Hope L1A 3S4  
Tel: 905-885-0611  
[www.porthopechc.ca](http://www.porthopechc.ca)

## Peterborough County and City

### **Peterborough Regional Health Centre**

1 Hospital Drive  
Peterborough, K9J 7C6  
Tel: 705-743-2121  
[www.prhc.on.ca](http://www.prhc.on.ca)

## Haliburton County-City Of Kawartha Lakes

### **Haliburton Highlands Health Services**

6 McPherson Street  
Minden, K0M 2K0  
Tel: 705-286-2140  
[www.hhhs.ca](http://www.hhhs.ca)

### **Ross Memorial Hospital**

10 Angeline Street North  
Lindsay, K9V 4M8  
Tel: 705-324-6111  
[www.rmh.org](http://www.rmh.org)

## Scarborough North and South

### **Scarborough Health Network (SHN) – Centenary**

2867 Ellesmere Road  
Scarborough, M1E 4B9  
Tel: 416-284-8131  
[www.shn.ca](http://www.shn.ca)

### **SHN - General**

3050 Lawrence Avenue East  
Scarborough, M1P 2V5  
Tel: 416-438-2911  
[www.shn.ca](http://www.shn.ca)

### **SHN - Birchmount**

3030 Birchmount Road  
Scarborough, M1W 3W3  
Tel: 416-495-2400  
[www.shn.ca](http://www.shn.ca)

### **Scarborough Centre for Healthy Communities**

629 Markham Road Unit 2  
Scarborough, M1H 2A4  
Tel: 416-847-4160  
[www.schcontario.ca](http://www.schcontario.ca)

### **TAIBU CHC**

27 Tapscott Road, Unit 1  
Scarborough, M1B 4Y7  
416-644-3539  
[www.taibuchc.ca](http://www.taibuchc.ca)

### **Carefirst Seniors and Community Services Association**

300 Silver Star Boulevard  
Scarborough, M1V 0G2  
416-502-2323  
[www.carefirstontario.ca](http://www.carefirstontario.ca)

# Central East LHIN Self-Management Program

The Central East LHIN Self-Management Program offers a variety of free workshops for patients and caregivers in locations across the region. Workshops are led by trained peer facilitators and held in locations such as libraries, community centres, senior centres and health care organizations.

## Living a Healthy Life with Diabetes Workshop

This highly interactive workshop is two and half hours, one day a week, for six weeks. Each week you will learn about different topics related to your diabetes. These topics will include the importance of monitoring, menu planning, how to prevent or delay complications and foot care. You will learn how to make small, manageable changes that are important to you in your life. You will create a personalized action plan to better manage your diabetes and improve your health. These peer lead small group learning sessions will connect you with people who are living with similar challenges, where you can feel understood as you explore how to best self-manage your diabetes.

## Living a Healthy Life with Chronic Conditions

Supports helping individuals living with the challenges and complications of having a chronic health condition, covering discussions and learning in all areas of our health management including our physical, mental, and emotional health. This workshop is two and half hours, one day a week for six weeks.

## Living a Healthy Life with Chronic Pain

Supports individuals who are seeking ways to manage their pain associated with their chronic condition. This workshop explores how the experience of pain can affect our overall health. Various strategies of pain management are discussed and explored. Each week participants create a weekly action plan to support their health goals. This workshop is two and half hours, one day a week, for six weeks.

## Powerful Tools for Caregivers

Is designed to provide Caregivers with the skills and tools they need to stay well while they take on what can feel like an overwhelming role as caregiver. This workshop is one and half hours, one day a week, for six weeks.

## Mindful Awareness Stabilization Training (MAST)

Teaches mindfulness practice. This is a non-clinical workshop, to help people manage symptoms of anxiety and mild depression. This workshop is two hours, one day a week for four weeks.

## Help with Your Health

Are 1.5 hour sessions covering topics such as understanding digestion, joint and back pain, stress and sleep, food labels, medications, practical planning for your health and blood pressure.

## Getting the Most from your Healthcare Appointment

Focuses on what to do before, during and after a healthcare appointment. A variety of learning resources are used including information sharing, videos, tools and hand out materials. This workshop prepares and empowers individuals to communicate more effectively with their health care providers. This one day session is one and half hours. This highly interactive workshop takes place in small group settings, and are available throughout your community at a variety of host sites.

To learn more about any of these workshops, please contact the Central East LHIN Self-Management Program.

[www.ceselfmanagement.ca](http://www.ceselfmanagement.ca) or call 1-866-971-5545.



**Harwood Plaza**

314 Harwood Avenue South,  
Suite 204A

Ajax, ON L1S 2J1

Tel: 905-427-5497

Fax: 905-427-9659

Toll Free: 866-804-5446

[www.centraleastlhin.on.ca](http://www.centraleastlhin.on.ca)