# Diabetes Teaching Checklist

**Level of understanding**

- **U** - Understanding indicated
- **R** - Repeat
- **N/A** - not applicable

<table>
<thead>
<tr>
<th>Topics</th>
<th>Date</th>
<th>Name</th>
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<tbody>
<tr>
<td>Diabetes Education</td>
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<td>Importance of site rotation for insulin injection</td>
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<td>Identified Family Goals:</td>
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<td>Videos/Books</td>
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<td>Identified Learning Barriers:</td>
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</tbody>
</table>

Upon completion, fax copy of this teaching record along with referral to the Provincial Diabetes Program (see referral form for fax #s)
Client/Family Teaching Guidelines

1. Log into www.healthpei.ca/carepathways Find Client Education materials. Identify Diabetes folder and open. Print a copy of the applicable material enclosed. (Insulin or Non Insulin)

2. Otherwise, obtain from specified location on your unit, facility, or work site.

3. Material provided in the Package correlates with the specific teaching checklist.

4. Use the checklist as a guide to the provided teaching material. It is a part of the paper chart.

5. Each row represents a specific element of education required prior to discharge.

6. Once the element is taught/covered with the client/family, date and sign your name in the row that corresponds with the material. (This communicates to other health care providers what material has been covered.)

7. A key provided on the top left hand corners allows staff to document the level of understanding in the Eval. column that corresponds to the material

8. An “R” in the Eval. Column indicates that the material needs to be repeated/reviewed again, therefore some rows may require more than one date and signature.

10 The section at the bottom provides staff the opportunity to identify any goals or learning barriers the client/family may have.

11 An additional section is provided to document any additional sources of information that are used to educate the client/family.
What Is Diabetes?

Diabetes is a condition in which the body does not make proper use of glucose. The glucose in the food we eat is an important fuel needed to give us energy.

Next >>

Glucose comes from sweet foods like cakes, pies, pop and from many other foods that may not taste sweet such as fruits and vegetables, milk products, and starchy foods like bread and potatoes.

Next >>
What Is Diabetes?

Whenever we eat, our stomach breaks the food down into glucose.

In a person without diabetes, a hormone made by the pancreas, called "insulin" helps the glucose to reach the muscle, fat and other body cells. The glucose from food enters the blood. Insulin meets the glucose and together they travel in the blood to body cells. Insulin works like a key and opens the door so glucose can enter. When the glucose enters the body cells, it is burned to produce energy.
In a person with diabetes, there is not enough insulin in the pancreas or the insulin does not work properly. The glucose cannot be taken through the blood into the body cells without insulin, so the glucose piles up in the blood causing high blood glucose. The body cells do not produce energy since there is no glucose burned and the body does not have the energy to do its work.
**What is type 2 diabetes?**

Type 2 diabetes is a disease in which your pancreas does not produce enough insulin, or your body does not properly use the insulin it makes. As a result, glucose (sugar) 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. Insulin is a hormone that helps your body to control the level of glucose in your blood.

**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 healthcare 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 healthcare provider how often you should measure your blood glucose level*
Who can help you?

Your healthcare team is there to help you. Depending on your needs and the resources available in your community, your team may include a family doctor, diabetes educator (nurse and/or dietitian), endocrinologist, pharmacist, social worker, exercise physiologist, psychologist, foot care specialist, eye care specialist. They can answer your questions about how to manage diabetes and work with you to adjust your food plan, activity and medications.

Remember, you are the most important member of your healthcare team

Complications of diabetes

Type 2 diabetes is a progressive, life-long disease. 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

*Discuss your target ranges with your healthcare provider

Get the support you need

A positive and realistic attitude towards your diabetes can help you manage it. Talk to others who have diabetes. Ask your local Canadian Diabetes Association branch about joining a peer-support group or taking part in an information session.

Across the country, the Canadian Diabetes Association is leading the fight against diabetes by helping people with diabetes live healthy lives while we work to find a cure. Our community-based network of supporters help us provide education and services to people living with diabetes, advocate for our cause, break ground towards a cure and translate research into practical applications.

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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, a form of sugar. Glucose comes from foods such as fruit, milk, some vegetables, starchy foods and sugar.

To control your blood glucose you will need to eat healthy foods, be active and you may need to take pills and/or insulin.

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

<table>
<thead>
<tr>
<th>TIPS</th>
<th>REASONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat three meals per day at regular times and space meals no more than six hours apart. You may benefit from a healthy snack.</td>
<td>Eating at regular times helps your body control blood glucose levels.</td>
</tr>
<tr>
<td>Limit sugars and sweets such as sugar, regular pop, desserts, candies, jam and honey.</td>
<td>The more sugar you eat, the higher your blood glucose will be. Artificial sweeteners can be useful.</td>
</tr>
<tr>
<td>Limit the amount of high-fat food you eat such as fried foods, chips and pastries.</td>
<td>High-fat foods may cause you to gain weight. A healthy weight helps with blood glucose control and is healthier for your heart.</td>
</tr>
<tr>
<td>Eat more high-fibre foods such as whole grain breads and cereals, lentils, dried beans and peas, brown rice, vegetables and fruits.</td>
<td>Foods high in fibre may help you feel full and may lower blood glucose and cholesterol levels.</td>
</tr>
<tr>
<td>If you are thirsty, drink water.</td>
<td>Drinking regular pop and fruit juice will raise your blood glucose.</td>
</tr>
<tr>
<td>Add physical activity to your life.</td>
<td>Regular physical activity will improve your blood glucose control.</td>
</tr>
</tbody>
</table>

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Plan for healthy eating

- Have a glass of milk and a piece of fruit to complete your meal.
- Alcohol can affect blood glucose levels and cause you to gain weight. Talk to your healthcare professional about whether you can include alcohol in your meal plan and how much is safe.
- Eat more vegetables. These are very high in nutrients and low in calories.
- 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.
- Include fish, lean meats, low-fat cheeses, eggs, or vegetarian protein choices as part of your meal.

It’s natural to have questions about what food to eat. A registered dietitian can help you include your favourite foods in a personalized meal plan.

Handy portion guide

Your hands can be very useful in estimating appropriate portions. When planning a meal, use the following portion sizes as a guide:

**FRUITS*/GRAINS & STARCHES*:** Choose an amount the size of your fist for each of Grains and Starches, and Fruit.

**VEGETABLES*:** Choose as much as you can hold in both hands.

**MEAT & ALTERNATIVES*:** Choose an amount up to the size of the palm of your hand and the thickness of your little finger.

**MILK & ALTERNATIVES*:** Drink up to 250 mL (8 oz) of low-fat milk with a meal.

**FATS*:** Limit fat to an amount the size of the tip of your thumb.

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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 the amount of effort; for instance, progress from strolling to brisk walking.
- Make family activities active; try swimming or skating instead of watching TV or a movie.
- Try new activities; learn to dance, play basketball, or ride a bike.
- Enjoy your improved sense of health and well-being.

- The Canadian Diabetes Association recommends that all people with diabetes should receive advice on nutrition from a registered dietitian.
- Good management of diabetes means healthy eating, staying active and taking medication as required.
- Be sure to eat breakfast. It provides a good start to the day.

Sample meal plan

FOR SMALLER APPETITES

Breakfast:
Cold cereal (½ cup, 125 mL)
Whole grain toast (1 slice)
1 orange
Low-fat milk (1 cup, 250 mL)
Peanut butter (2 tbsp, 30 mL)
Tea or coffee

Lunch:
1 sandwich
- 2 slices of whole grain bread or 6” pita
- meat, chicken or fish (2 oz, 60 g)
- non-hydrogenated margarine (1 tsp, 5 mL)
Carrot sticks
Grapes
Low-fat plain yogurt (¾ cup, 175 mL)
Tea or coffee

Dinner:
Potato (1 medium) or rice (2/3 cup, 150 mL)
Vegetables
Non-hydrogenated margarine (1 tsp, 5 mL)
Lean meat, chicken, or fish (2 oz, 60 g)
Cantaloupe (1 cup, 250 mL)
Low-fat milk (1 cup, 250 mL)
Tea or coffee

Evening Snack:
Low-fat cheese (1 oz, 30 g)
Whole grain crackers (4)
Follow a healthy lifestyle

- Have at least 3 out of the 4 key food groups at each meal from Eating Well with Canada’s Food Guide:
  - vegetables and fruit
  - grain products
  - milk and alternatives
  - meat and alternatives

- Have portion sizes that will help you reach or maintain a healthy body weight.

- Include high-fibre foods such as whole grain breads, cereals, and pastas, fresh fruits, vegetables and legumes.

- Make lower fat choices (e.g. use skim milk and lean ground beef, trim fat on meat, chicken etc., and use small amounts of added fat such as oil and salad dressings).

- Healthy eating habits should be built around a healthy lifestyle – keep active every day.

Sample meal plan

FOR BIGGER APPETITES

**Breakfast:**
Cold cereal (½ cup, 125 mL)  
Whole grain toast (2 slices)  
1 orange  
Low-fat milk (1 cup, 250 mL)  
Low-fat cheese (2 oz, 60 g)  
Tea or coffee

**Lunch:**
Soup (1 cup, 250 mL)  
Sandwich  
- 2 slices whole grain bread or 6” pita  
- lean meat, chicken or fish (3 oz, 90 g)  
- tomato slices  
- non-hydrogenated margarine (1 tsp, 5 mL)  
Carrot sticks  
Grapes  
Low-fat plain yogurt (¾ cup, 175 mL)  
Tea or coffee

**Afternoon Snack:**
1 medium apple or small banana

**Dinner:**
1 large potato or cooked noodles (1 ½ cup, 375 mL)  
Vegetables  
Green salad with low-fat salad dressing  
Lean meat, chicken or fish (4 oz, 120 g)  
1 medium pear  
Low-fat milk (1 cup, 250 mL)  
Tea or coffee

**Evening Snack:**
Peanut butter (4 tbsp, 60 mL)  
Whole grain crackers (4)  
Low-fat milk (1 cup, 250 mL)

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Related articles: Physical activity and diabetes, Fibre and diabetes, Glycemic index, Eating away from home, Alcohol and diabetes, Managing weight and diabetes
Home Blood Glucose Monitoring

Home blood glucose testing will provide you the information to help manage your diabetes. It will help you to determine how your meal planning, physical activity and medication (pills or insulin) are doing to keep your blood glucose (sugar) levels as close to normal as possible.

What do I need to test my blood glucose at home?

- Blood Glucose Machine
- Blood Glucose Test Strips
- Lancets
- Lancet Device
- Sharps Container
- Record book or Recording sheet
How Often Should You Test?

‘How often’ to check your blood glucose at home should be discussed with your diabetes health care team. For example, those people taking insulin would check more often than someone who manages their diabetes with meal planning alone.

Test a minimum of once per day at alternating times.

Be sure to record any notes which may help the doctor or diabetes health care team make adjustments in your diabetes treatment.
When to Increase the Frequency of Home Blood Glucose (Sugar) Monitoring

- Change in food intake

- Change in physical activity (Time, type, duration)

- Change in medications for diabetes and other health conditions

- When you have diabetes and are pregnant or planning a pregnancy

- When blood sugars are not in target range (4 to 7 mmol/L before meals and 5 to 10 mmol/L 1.5 to 2 hrs after meals)

- Illness or change in stress level (Positive or negative stress)

- Traveling through time zones
Steps for Blood Glucose Monitoring

• Wash hands in warm water and dry well. No need to use alcohol. Alternate sites (areas other than your hands) should not be used until at least 2 hours after eating.

• Place blood test strip in blood glucose machine.

• Load lancet device with lancet. Massage your finger base to tip. Hold lancet device to either side of the fingertip. Press button to stick finger. Hold hand below your heart and wait 5-10 seconds. Working from the base of the finger, gently squeeze to obtain a drop of blood.

• Gently touch and hold the blood drop to the strip while the strip draws the blood into the strip.

• Wait while the machine determines blood glucose result.

• Remove lancet from the lancet device and dispose of lancet in a suitable sharps container.

• The test strip can be placed in the waste.
Insulin Pens:
Your pen comes with an instruction book. Please review it to understand how your pen works, how to load the cartridge, and how to prepare your pen for an insulin injection.

Mixing Insulin:
Insulin that is cloudy (NPH, premixed) needs to be mixed before using. The pen should be rolled ten times, tipped ten times, and checked for a milky-white consistency.

Check Insulin Flow (Prime):
Attach pen needle. Dial up 2 units and, with pen tip facing upwards, push the dosing button. If no stream of insulin appears, repeat with another 2 units.

Giving Your Injection:
After you have checked the insulin flow, dial up the dose of insulin to be taken. Insert pen tip into skin at a 90º angle. Push the dosing button until you see ‘0’. Count 10 seconds before removing the needle from your skin to ensure you receive the full dose. With longer needles (≥ 8mm), you may need to gently lift the skin before injection.

<table>
<thead>
<tr>
<th>Site</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen (tummy)</td>
<td>Easy to reach</td>
<td>Slower absorption rate than from abdomen and arm sites</td>
</tr>
<tr>
<td>• Stay 2 inches (5 cm) away from your belly button</td>
<td>Insulin absorbs fast and consistently</td>
<td>Slower absorption Absorption can be affected by exercise</td>
</tr>
<tr>
<td>Buttock and thigh</td>
<td>Slower absorption rate</td>
<td>Harder to reach for self-injections</td>
</tr>
<tr>
<td>Outer arm</td>
<td>After abdomen, arm provides the next fastest absorption rate</td>
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</tbody>
</table>

NOTE: It is really important to change (rotate) where you give yourself insulin to prevent fatty lumps from forming since these can affect how your body absorbs insulin. For example, you can move from one side of your abdomen to the other side, and you can also move your injection site to a different location within each side of your abdomen.

Avoid a 2-inch area around the belly button as well as scar tissue.

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Insulin Care and Storage:

Unopened insulin should be stored in the fridge between 2ºC and 8ºC. Opened insulin can be stored at room temperature for up to 1 month. Insulin detemir (Levemir) is an exception; it is safe at room temperature for 42 days. Keep all insulins away from direct heat and light. Discard insulin that has been frozen or exposed to temperatures greater than 30ºC. Do not use insulin after its expiry date.

Diabetes Identification:

You should always wear identification, such as a bracelet or necklace, to identify that you have diabetes. Identification bracelets, such as MedicAlert®, can be purchased at pharmacies and jewellery stores. Always carry identification in your wallet or purse that provides information about your diabetes.

Insulin Types:

<table>
<thead>
<tr>
<th>Type</th>
<th>Onset (How quickly it starts working)</th>
<th>Peak (When it is most effective)</th>
<th>Duration (How long it works)</th>
<th>Timing of injection (When should it be given)</th>
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<tbody>
<tr>
<td><strong>Bolus insulins</strong></td>
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<tr>
<td>Rapid acting analogues</td>
<td>10 – 15 min</td>
<td>1 – 2 hours</td>
<td>3 – 5 hours</td>
<td>Given with 1 or more meals per day. To be given 0 – 15 minutes before or after meals.</td>
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<tr>
<td>• Apidra / Humalog / NovoRapid</td>
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<tr>
<td>Short-acting</td>
<td>30 min</td>
<td>2 – 3 hours</td>
<td>6.5 hours</td>
<td>Given with one or more meals per day. Should be injected 30 – 45 minutes before the start of the meal.</td>
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<tr>
<td>• Humulin-R / Toronto</td>
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<tr>
<td><strong>Basal insulins</strong></td>
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<tr>
<td>Intermediate-acting</td>
<td>1 – 3 hours</td>
<td>5 – 8 hours</td>
<td>up to 18 hours</td>
<td>Often started once daily at bedtime. May be given once or twice daily. Not given at any time specific to meals.</td>
</tr>
<tr>
<td>• Humulin-N / NPH</td>
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<tr>
<td>Long-acting analogues</td>
<td>90 min</td>
<td>not applicable</td>
<td>up to 24 hours</td>
<td>Often started once daily at bedtime. Insulin detemir (Levemir) may be given once or twice daily. Not given at any time specific to meals</td>
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<tr>
<td>• Lantus</td>
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<tr>
<td>• Levemir</td>
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<tr>
<td><strong>Premixed insulins</strong></td>
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<tr>
<td>Premixed regular insulin</td>
<td>Varies according to types of insulin</td>
<td>contains a fixed ratio of insulin (% of rapid-acting or short-acting insulin to % of intermediate-acting insulin): see above for information about peak actions based on insulin contained</td>
<td></td>
<td>Given with one or more meals per day. Should be injected 30 – 45 minutes before the start of the meal.</td>
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<tr>
<td>• Humulin 30/70 / Novolin ge 30/70, 40/60, 50/50</td>
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</tr>
<tr>
<td>Premixed insulin analogues</td>
<td>Varies according to types of insulin</td>
<td></td>
<td></td>
<td>Given with one or more meals per day. Should be injected 0 – 15 minutes before or after meals.</td>
</tr>
<tr>
<td>• NovoMix 30 / Humalog Mix 25, Mix 50</td>
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Low Blood Sugars (Hypoglycemia):

Treatment of Low Blood Glucose (Hypoglycemia)

What is low blood glucose?
When the amount of blood glucose (sugar in your blood) has dropped below your target range (i.e. is generally less than 4.0 mmol/L), a condition called low blood glucose or hypoglycemia occurs.

When this happens, you may feel:
- Shaky, light-headed, nauseated
- Nervous, irritable, anxious
- Confused, unable to concentrate
- Hungry
- A faster heart rate
- Sweaty, headachy
- Weak, drowsy
- A numbness or tingling in your tongue or lips
- Confused, unable to concentrate
- Weak, drowsy
- A numbness or tingling in your tongue or lips

How do I treat low blood glucose?
If you are experiencing the signs of a low blood glucose level, check your blood glucose immediately. If you do not have your meter with you, treat the symptoms anyway. It is better to be safe.

Eat or drink a fast-acting carbohydrate source (containing 15 grams). For example:
- 15 g of glucose in the form of glucose tablets (preferred choice)
- 15 mL (1 tablespoon) or 3 packets of table sugar dissolved in water
- 175 mL (¾ cup) of juice or regular soft drink
- 6 LifeSavers® (1 = 2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey (do not use for children less than 1 year)

Low blood glucose can happen quickly, so it is important to treat it right away. If your blood glucose drops very low, you may need help from another person.

Causes of hypoglycemia:
- More physical activity than usual
- Taking too much medication
- Not eating on time
- Drinking alcohol
- Eating less than usual

Checking Blood Sugars and Adjustment of Insulin:

<table>
<thead>
<tr>
<th>Insulin</th>
<th>Starting Dose</th>
<th>units at</th>
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</thead>
<tbody>
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<td></td>
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</tbody>
</table>

Blood glucose goals:

Contact for help with insulin adjustments:

What to do with your diabetes pills:

Please check blood sugars using the following schedule.

<table>
<thead>
<tr>
<th>Breakfast</th>
<th>Lunch</th>
<th>Supper</th>
<th>Bedtime</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>before</td>
<td>after</td>
<td>before</td>
<td>after</td>
<td>before</td>
</tr>
</tbody>
</table>

* SMBG = self-monitoring of blood glucose

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Proper Use of Pen Tips (needles):
Use pen tips only once; they are thin and can become bent or broken if re-used. Reusing pen tips can make the injection more painful. Leaving pen tips on the cartridge may cause leaking or allow air into the cartridge which may affect the concentration of the insulin.

Safe Sharps Disposal:
Pen tips and lancets should be disposed of in a sharps container. Check with your local pharmacy. Many pharmacies supply safe, puncture-proof containers. When the container is full, it is returned to the pharmacy in exchange for a new container. Sharps otherwise should be disposed of in accordance with local regulations.

Diabetes Driving Guidelines

Prevention of hypoglycemia for all insulin-treated drivers
• Measure your blood glucose level immediately before and at least every 4 hours during long drives. Always carry blood glucose monitoring equipment and treatment for hypoglycemia within easy reach (e.g. attached to the visor).
• You should not drive when your blood glucose level is less than 4.0 mmol/L. You should not begin to drive without having some carbohydrate-containing food when your blood glucose level is between 4.0 – 5.0 mmol/L.
• Stop and treat yourself as soon as hypoglycemia and/or impaired driving is suspected. You should not drive for at least 45 – 60 minutes after effective treatment of mild to moderate hypoglycemia (i.e. blood glucose level 2.5 – 4.0 mmol/L).

Professional Drivers must
• Carry supplies when you are driving:
  • A blood glucose monitor
  • A source of readily available, rapidly absorbable carbohydrate
  • Test your blood glucose 1 hour before starting to drive and approximately every 4 hours while driving
  • Stop driving if your glucose level falls below 6.0 mmol/L and do not resume driving until your glucose level has risen to 6.0 mmol/L or higher following food ingestion

Each province has its own rules regarding glucose control and being able to drive.

I want to apply for a commercial licence.
Can I drive in Canada? In the United States?
Canadians with diabetes who are using insulin can apply for a commercial licence. Motor vehicle licensing authorities require a greater level of medical fitness for drivers operating passenger vehicles (buses/commercial vans), trucks, and emergency vehicles. Commercial drivers spend more time driving and are often under more adverse conditions than private drivers.

Canadians with diabetes who are using insulin can be licensed to drive a commercial vehicle in Canada. The Canada/US Medical Reciprocity Agreement (effective March 1999) recognizes the similarity between Canadian and American medical standards and provides for reciprocal arrangements on medical fitness requirements for Canadian and American drivers of commercial vehicles.

However, Canadian commercial drivers who have diabetes requiring insulin, have monocular vision, are hearing impaired, or have epilepsy requiring anticonvulsive medication are not permitted to drive in the United States.

What is the Canadian Diabetes Association’s position on diabetes and driving and licensing?
The Canadian Diabetes Association believes people with diabetes should be assessed for a driver’s licence on an individual basis. http://www.diabetes.ca/get-involved/helping-you/advocacy/faq/driving/


Across the country, the Canadian Diabetes Association is leading the fight against diabetes by helping people with diabetes live healthy lives while we work to find a cure. Our community-based network of supporters help us provide education and services to people living with diabetes, advocate for our cause, break ground towards a cure and translate research into practical applications.

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Related articles: Lows and Highs: Blood Glucose Levels, Thinking of Starting Insulin, Managing Your Blood Glucose
Sick Day Management for Those on Insulin

GOALS FOR SICK DAY MANAGEMENT -

- Prevention of hyperglycemia (high blood glucose)
- Prevention of hypoglycemia (low blood glucose)
- Maintenance of hydration

Acute illness usually aggravates diabetes control and increases insulin requirements; however low blood glucose levels (and decreased insulin needs) are also possible. Judgment and frequent monitoring are required.

BODY RESPONSES TO SICKNESS

Illness causes the release of stress hormones which leads to the overproduction of sugar and the accumulation of sugar in the blood stream. Therefore it is necessary to monitor and respond to these higher blood sugars EVERY 2 to 4 HOURS.

More frequent glucose monitoring is recommended if the blood sugars are low (less than 4.0 mmol/L). This monitoring protocol should be continued as long as:

- the blood sugars are less than 4.0 mmol/L or are >14.0 mmol/L
- or you are unable to eat regular meals
- or for type 1 diabetes, if ketones are present.

Illness may also be accompanied by dehydration which needs to be carefully monitored. If vomiting +/- diarrhea or fever, you are more prone to dehydration.

INSULIN SHOULD NEVER BE OMITTED!

An increase in the dosage of insulin is usually required. Some people however may have blood sugars that are too low and may need a reduction in their insulin dose.
DRINK PLENTY OF SUGAR-FREE AND/OR SUGAR CONTAINING FLUIDS

If you cannot eat as usual, replace solid foods with sugar containing fluids. For example, take 10-15 grams carbohydrate per hour (ie 4-6 oz regular juice or pop). As well, encourage sugar free fluids such as water, sugar-free Kool-aid or diet pop especially if the blood sugars are high.

FREQUENTLY CHECK BLOOD SUGARS AND BLOOD/URINE KETONES

If you vomit twice or more in a 12 hour period, see your doctor/nurse practitioner or go to the nearest Emergency department.

SICK DAYS CAN BE CHALLENGING. BEING PREPARED CAN MAKE THIS TIME LESS STRESSFUL.

REMEMBER: “S - I - C - K”

S is for blood sugar. Test blood sugars every two to four hours around the clock

I is for insulin. Do not stop insulin. Additional doses or adjustment may be needed.

C is for carbohydrates. Do not stop eating carbohydrate-containing foods. (Some examples would be popsicles, juice, toast, soup, crackers, regular Jello)
Remember to drink lots of sugar-free fluids as well to prevent dehydration.

K is for ketones. Test blood/urine ketones every four to five hours if blood glucose level is over 14 mmol/L.
**When to Call your Doctor / NP and/ or Seek Medical Attention**

**Important steps in taking care of your diabetes are:**

- Regular blood glucose monitoring and recording
- Following your meal plan
- Insulin preparation and injection

**In the first few days and weeks at home, there are some situations which you need to report to your doctor /NP and / or diabetes educator:**

- Persistent high blood glucose sugar levels (i.e. if blood sugars are more than 14.0 mmol/L for 24 hrs)
- Illness, particularly with vomiting
- For type 1 diabetes, if there are ketones in the blood or urine, during illness.
  - If blood ketones are between 1.5 and 3.0 mmol/L (or urine ketones amount is small to moderate) notify your doctor/NP or diabetes educator immediately if unsure of how to treat ketones.
  - If blood ketones greater than 3.0 mmol/L (or urine ketones amount is large) seek immediate attention from your nearby hospital's emergency department.
- Frequent or unexplained low blood glucose (sugar) reactions
- Blood glucose levels less than 4.0 mmol/L:
  - each time blood glucose levels are checked, or
  - at the same time of day for more than 3 days
- If you (or a family member) have used glucagon to treat a low blood sugar
Home Blood Glucose Follow-up Report

<table>
<thead>
<tr>
<th>Name:</th>
<th>Phone No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin dose:</td>
<td>Insulin dose:</td>
</tr>
</tbody>
</table>

**Recommended blood sugar goals:**
- **Before meals:** 4 – 7 mmol / L
- **After meals: (1.5-2 hours):** 5 - 10 mmol / L

<table>
<thead>
<tr>
<th>Date</th>
<th>Before Breakfast</th>
<th>Insulin</th>
<th>2 hrs after Breakfast</th>
<th>Before Lunch</th>
<th>Insulin</th>
<th>2 hrs after Lunch</th>
<th>Before Supper</th>
<th>Insulin</th>
<th>2 hrs after Supper</th>
<th>Before Bed Snack</th>
<th>Bedtime Insulin</th>
<th>Adjustments / Notes:</th>
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</tbody>
</table>

The above changes were made by the diabetes educator based on ☐ phone ☐ e – mail ☐ office visit

In office use only: Date sent: ______________ Physician’s / NP’s name: ______________ Educator’s name: ______________
# Home Blood Glucose Follow-up Report

**Name:**

**Phone No:**

**Insulin dose:**

**Recommended blood sugar goals:**
- **Before meals:** 4 – 7 mmol / L
- **After meals: (1.5-2hours)** 5 - 10 mmol / L

<table>
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</tbody>
</table>

The above changes were made by the diabetes educator based on □ phone □ e – mail □ office visit

In office use only: Date sent: ____________________ Physician’s / NP’s name: ____________________ Educator’s name: ____________________
Consider the following questions when deciding what is best for you.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Is my diabetes under control?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Am I free from health problems that alcohol can make worse such as disease of the pancreas, eye disease, high blood pressure, high triglycerides, liver problems, nerve damage or stroke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Do I know how to prevent and treat low blood glucose?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **If you answered “no” to any of these questions**, you should speak to your diabetes educator or healthcare professional before drinking alcohol.

- **If you answered “yes” to all of these questions**, it is OK to drink alcohol in moderation. *Moderate alcohol intake is limited to 2 standard drinks/ day or less than 10 drinks/ week for women; and less than 3 standard drinks/ day or less than 15 drinks/ week for men.* This recommendation is the same for people without diabetes.

---

As a general rule, there is no need to avoid alcohol because you have diabetes.

**You should not drink alcohol if you:**

- are pregnant or trying to get pregnant
- are breastfeeding
- have a personal or family history of drinking problems
- are planning to drive or engage in other activities that require attention or skill
- are taking certain medications. Ask your pharmacist about your medications.

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Health risks of alcohol use

You may have heard that alcohol has certain health benefits. However, any pattern of drinking can be harmful. Proven ways of improving your health include: healthy eating, being active, and being a non-smoker.

The Association’s Clinical Practice Guidelines recommend that:

- People using insulin or insulin secretagogues should be aware of delayed hypoglycemia (low blood glucose) that can occur up to 24 hours after drinking alcohol.
- People with type 1 diabetes should be aware of the risk of morning hypoglycemia if alcohol is consumed 2 to 3 hours after the previous evening’s meal.
- Alcohol should be limited to 2 standard drinks/day or less than 10 drinks/week for women and less than 3 standard drinks/day or less than 15 drinks/week for men.
- People with diabetes should discuss alcohol use with their diabetes healthcare team.

Risks for people with diabetes

Alcohol can:
- affect judgement
- provide empty calories that might lead to weight gain if taken in excess
- increase blood pressure and triglycerides
- cause damage to liver and nerves including brain and sexual organs
- contribute to inflammation of the pancreas
- dehydrate the body which is very dangerous in someone with high blood glucose
- worsen eye disease

For young people in particular, alcohol use:

- can lead to addiction
- is associated with a dramatic increase in injuries and death
For those on insulin or some diabetes medications

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

**BEFORE Drinking alcohol**

- Eat regular meals, take your medication(s), and check your blood glucose levels frequently (keep your blood glucose meter with you).
- Always have a treatment for low blood glucose with you (such as 3 glucose tablets or ¾ cup regular pop or 6 Life Savers®).
- Wherever you are, make sure someone with you knows your signs and symptoms of low blood glucose and how to treat it so they can help you.
- Be aware that glucagon, a treatment for low blood glucose, will not work while alcohol is in the body. Because of this, make sure that someone knows to call an ambulance if you pass out.
- Wear diabetes identification such as a MedicAlert® bracelet.

**WHILE Drinking alcohol**

- Eat carbohydrate-rich foods when drinking alcohol. Some ideas:

  - Eat extra carbohydrate-rich foods if you are dancing, playing sports or doing other physical activity.
  - Always pour your own drinks. Use less alcohol and stretch your drinks with sugar-free mixes.
  - Drink slowly. Make your second drink without alcohol.

**AFTER Drinking alcohol**

- Tell a responsible person that you have been drinking. They should look for low blood glucose symptoms. (eg.__________ )
- Check your blood glucose before going to bed. Eat a carbohydrate snack if your blood glucose is lower than usual.
- Set an alarm or have a responsible person wake you up through the night and early morning – a delayed low blood glucose can occur anytime up to 24 hours after drinking alcohol.
- You need to 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 glucose, ketones and diabetic ketoacidosis (DKA).
If you do not drink alcohol, don’t start.

If you choose to drink alcohol, intake should be moderate (daily intake should be limited to 2-3 drinks for adult men and 1-2 drinks for adult women). When drinking alcohol, make sure you know how to prevent and treat low blood glucose.

Heavy alcohol drinkers (more than 3 drinks daily) are strongly advised to reduce the amount of alcohol they drink. Heavy alcohol use can make blood glucose control more difficult and increases other health risks.

Talk to your diabetes educator or healthcare professional if you have questions.

What is a "standard drink"?
1 standard drink (13.6 g of alcohol):

- Beer
  360 mL (12 fl.oz) of regular strength beer (5% alcohol)

- Spirits
  45 mL (1.5 fl.oz) of spirits (40% alcohol)

- Wine
  150 mL (5 fl.oz) of wine (12% alcohol)

Note: If you are carbohydrate counting, do not take insulin for the carbohydrate content of alcoholic drinks.

Carbohydrate and calorie content in some common alcoholic beverages and mixes (The amounts listed are a general guide only)

<table>
<thead>
<tr>
<th>Beverage</th>
<th>Standard serving size</th>
<th>Energy (kcal)</th>
<th>Carbohydrate content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regular</td>
<td>341 mL (12 fl.oz)</td>
<td>147</td>
<td>12</td>
</tr>
<tr>
<td>light</td>
<td>341 mL (12 fl.oz)</td>
<td>99</td>
<td>5</td>
</tr>
<tr>
<td>non-alcoholic*</td>
<td>355 mL (~12 fl.oz)</td>
<td>50-80</td>
<td>11-17</td>
</tr>
<tr>
<td>low carb*</td>
<td>341 mL (12 fl.oz)</td>
<td>95</td>
<td>3</td>
</tr>
<tr>
<td>Spirits/Hard liquor:</td>
<td>45 mL (1.5 fl.oz)</td>
<td>98</td>
<td>0</td>
</tr>
<tr>
<td>Liqueurs &amp; Cordials:</td>
<td>45 mL (1.5 fl.oz)</td>
<td>155-190</td>
<td>10-25</td>
</tr>
<tr>
<td>Wine:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regular</td>
<td>150 mL (5 fl.oz)</td>
<td>123-127</td>
<td>1-4</td>
</tr>
<tr>
<td>dessert</td>
<td>150 mL (5 fl.oz)</td>
<td>232</td>
<td>23</td>
</tr>
<tr>
<td>non-alcoholic</td>
<td>150 mL (5 fl.oz)</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Cooler:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>regular</td>
<td>355 mL (12 fl.oz)</td>
<td>178-258</td>
<td>21-38</td>
</tr>
<tr>
<td>light*</td>
<td>330 mL (12 fl.oz)</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Mixes:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar free pop</td>
<td>250 mL (8 fl.oz)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Regular pop</td>
<td>250 mL (8 fl.oz)</td>
<td>88-99</td>
<td>23-25</td>
</tr>
<tr>
<td>Club soda</td>
<td>250 mL (8 fl.oz)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tonic water</td>
<td>250 mL (8 fl.oz)</td>
<td>88</td>
<td>23</td>
</tr>
<tr>
<td>Orange juice</td>
<td>250 mL (8 fl.oz)</td>
<td>118</td>
<td>27</td>
</tr>
<tr>
<td>Tomato juice</td>
<td>250 mL (8 fl.oz)</td>
<td>44</td>
<td>11</td>
</tr>
<tr>
<td>Tomato and clam juice†</td>
<td>250 mL (8 fl.oz)</td>
<td>123</td>
<td>28</td>
</tr>
</tbody>
</table>

Reference: Canadian Nutrient File, 2010; USDA, 2011; *Actual Label
The caloric and carbohydrate content may vary by brand, be sure to check the labels

The bottom line

- If you do not drink alcohol, don’t start.
- If you choose to drink alcohol, intake should be moderate (daily intake should be limited to 2-3 drinks for adult men and 1-2 drinks for adult women). When drinking alcohol, make sure you know how to prevent and treat low blood glucose.
- Heavy alcohol drinkers (more than 3 drinks daily) are strongly advised to reduce the amount of alcohol they drink. Heavy alcohol use can make blood glucose control more difficult and increases other health risks.
- Talk to your diabetes educator or healthcare professional if you have questions.

Across the country, the Canadian Diabetes Association is leading the fight against diabetes by helping people with diabetes live healthy lives while we work to find a cure. Our community-based network of supporters help us provide education and services to people living with diabetes, advocate for our cause, break ground towards a cure and translate research into practical applications.

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Related articles: High blood pressure and diabetes
What causes a low blood glucose level (hypoglycemia)?

Low blood glucose may be caused by:
- More physical activity than usual
- Not eating on time
- Eating less than you should have
- Taking too much medication
- The effects of drinking alcohol

How do I treat low blood glucose?

If you are experiencing the signs of a low blood glucose level, check your blood glucose immediately. If you don’t have your meter with you, treat the symptoms anyway. It is better to be safe.

Eat or drink a fast-acting carbohydrate (15 grams):
- 15 g of glucose in the form of glucose tablets (preferred choice)
- 15 mL (1 tablespoon) or 3 packets of table sugar dissolved in water
- 175 mL (¾ cup) of juice or regular soft drink
- 6 LifeSavers® (1 = 2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey (do not use for children less than 1 year old)

Low blood glucose can happen quickly, so it is important to treat it right away. If your blood glucose drops very low, you may need help from another person. Very low blood glucose can make you:
- Confused and disoriented
- Lose consciousness
- Have a seizure

Make sure you always wear your MedicAlert® identification, and talk to your doctor or diabetes educator about prevention and emergency treatment for severe low blood glucose.
Wait 10 to 15 minutes, then check your blood glucose again. If it is still low:

- Treat again
- If your next meal is more than one hour away, or you are going to be active, eat a snack, such as half of a sandwich or cheese and crackers (something with 15 grams of carbohydrate and a protein source)
- Think about why your blood glucose went low and make the necessary changes to avoid low blood glucose again
- Wait 45 – 60 minutes before driving

What causes high blood glucose (hyperglycemia)?

High blood glucose can result when food, activity and medications are not balanced. High blood glucose may happen when you are sick or under stress.

What do I do if I have high blood glucose?

Follow the treatment recommended by your doctor, diabetes educator or other member of your healthcare team. If this happens often, you may need to call or see your doctor to:

- Adjust your meal plan
- Adjust your physical activity
- Adjust your medication and/or insulin
DRIVING AND DIABETES

What are the precautions?
Diabetes can make driving very unsafe because you may be taking medicines that increase your risk of low blood sugar (hypoglycemia). Low blood sugar can slow down your response and reaction time and increase your risk of car accidents. This is why it is important for people with diabetes to take certain precautions if they plan to drive. Here are the guidelines as recommended by the Canadian Diabetes Association for drivers:

1) Always check your blood sugars before driving.
2) Remember that the safe blood sugar BEFORE driving is at least 5.0mmol/L.

TIP: An easy way to remember might be to know the rhyme: “Five to Drive!”

3) If your blood sugar is between 4.0 - 5.0mmol/L, you need to eat a carbohydrate snack before you drive.

4) If your blood sugar is below 4.0mmol/L, do not drive. Treat with 15g of fast acting sugar and recheck in 15 minutes. Wait at least 45 minutes after blood sugar levels are at least 5.0mmol/L. Safe to drive.

5) Check your blood sugars every 4 hours if you’re driving on a long trip. More frequent testing may be required in situations where a greater risk of hypoglycemia is present, e.g., after physical activity or altered meal routine.

6) If symptoms of low blood sugar develop while driving, stop the vehicle in a safe location as soon as possible and treat with a fast-acting sugar.

What should I always have in my car?
- Always wear your diabetes ID (medic alert) when driving
- Always have your blood glucose meter available when driving
- In case you experience a low blood sugar, keep an emergency supply of carbohydrate snacks and a source of fast acting sugar in your car that is easy to reach. Examples include:
  - Four Dex-4 Tablets
  - Apple or Cranberry juice box
  - Can of regular soda
  - 6 LifeSavers.
What are the symptoms of low blood sugar?

- Nausea
- Shakiness, light-headedness
- Confusion, unable to concentrate
- Heart rate is faster
- Sweating, headaches
- Weakness, drowsiness
- Numbness or tingling in your tongue or lips
- Hunger
- Anxiety

Talk to your health care provider or diabetic nurse educator if you have any questions about the driving & diabetes guidelines.

Requirements for drivers that take insulin

- You must have a Driver’s Medical Examination completed by your doctor before you are able to get your first license. (Available from Access PEI)
- Private vehicle drivers, who are on insulin, must be under regular medical supervision with a minimum of 2 clinic visits each year.
- All commercial drivers, who are on insulin, are required to have a yearly Medical Examination and recertification. The Medical Examination costs $75-$100. This cost is at the expense of the driver or their employer. Insulin-dependent commercial drivers are also not qualified to drive in the United States
- If you ever experience a severe low blood sugar event where you have gone unconscious and needed intervention from another person, you must stop driving immediately and notify your doctor ASAP. Patients with a history of severe low blood sugar should not drive for at least 6 months and only start driving again when their sugar levels are stable.

What are some other things I should know about driving with diabetes?

- All drivers with diabetes should have a medical examination at least every 2 years by a doctor. Fitness of persons with diabetes to drive must be assessed on a case-by-case basis.
- If you begin to have difficulty managing your blood glucose, you may be advised by your doctor to stop driving for a period of time.
- Health care providers are required by law to report a patient with a medical condition that affects their ability to drive.
- Long-term complications from diabetes such as eye problems and nerve damage (e.g. numbness in your feet) can also impair driving. Be sure to talk to your health care provider if you experience any of these symptoms.

Who should I contact for more information about provincial driving requirements?

- Call Access PEI at (902) 368-5200


You Can Return:
• Needles, needle tips and syringes
• Insulin pens
• Lancets
• Other used medical sharps

Components such as glucose meters and cotton swabs should not be disposed of in sharps containers.

Visit www.healthsteward.ca to find your nearest participating pharmacy.
SAFELY DISPOSE OF YOUR USED SHARPS DEVICES BY FOLLOWING THESE STEPS:

1. Visit any participating pharmacy to receive an approved sharps container, free of charge.

2. Place your used sharps into the container, needle tip first.

3. Once the sharps waste has reached the designated fill line, secure the latch (double click) and return to a participating pharmacy.

Always use an approved sharps container when disposing of used sharps to help reduce the risk of needlestick injuries.

HEALTH PRODUCTS STEWARDSHIP ASSOCIATION

HPSA IS FUNDED BY THE HEALTH PRODUCTS INDUSTRY

For more information, visit: healthsteward.ca or e-mail info@healthsteward.ca
Call Our Toll-Free Number: 1-844-535-8889
How to reach us

The Provincial Diabetes Program of Prince Edward Island is available to provide you with ongoing diabetes education and support. There are five program sites located across the province. The program offers group classes as well as individualized appointments. The program has diabetes nurses, dietitians and a social worker who will work closely with you and your doctor to help you live a healthy life with diabetes.

At the time of diagnosis of diabetes, we recommend your family physician send a referral to our program to register you for our educational sessions or to book a one on one appointment with our nurse, dietitian or social worker.

Please note however, if you are living with diabetes, you can directly call any one of the program sites across the province to set up an appointment with our staff.

Please feel free to contact the program site within your community for more information:

**Charlottetown** (2 locations)

**Queens East**
Program Location: 161 St. Peter’s Road  
Sherwood Business Centre  
Charlottetown, P.E.I. C1A 7N8  
Telephone: 902-368-4959

**Queens West**
Program Location: 152 St.Peters Road  
Four Neighborhoods Community Health Center  
Charlottetown, PE, C1A 5P8  
Telephone: 902-569-7562

**Summerside**
Program Location: Harbourside Family Health Centre,  
243 Heather Moyse Drive  
Summerside, PE C1N 5R1  
Telephone: 902-432-2600
**O’Leary**
Program Location: O'Leary Health Center
15 MacKinnon Drive,
PO Box 550
O'Leary, PE C0B 1V0
Telephone: 902-859-0388

**Montague & Souris**
Program Location: Montague Health Center
407 MacIntyre Avenue,
Montague, PE C0A 1R0
Telephone: 902-838-0787
**Referral**

**Provincial Diabetes Program and Diabetes Drug Program**

Refer to: □ Provincial Diabetes Program □ Diabetes Drug program (Pharmacare)  
(check all that apply)

Reason for referral:  
□ New diagnosis □ Re-referral □ Change of treatment □ Insulin Start

<table>
<thead>
<tr>
<th>Name</th>
<th>(last)</th>
<th>(first)</th>
<th>(initial)</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Mailing Address</th>
<th>(postal code)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Telephone</th>
<th>(home)</th>
<th>(work)</th>
<th>(cell)</th>
</tr>
</thead>
</table>

Contact Person

Referred by:

□ Family Physician/NP □ Physician Specialist □ Self □ Other

(type) ________________________ (title) ________________________

Date of diagnosis

Referral sent by:

(print name) ________________________ (signature) ________________________

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**Type of diabetes**  (see back for diagnostic criteria)

□ Type 1 □ Type 2

Symptoms of diabetes + casual plasma glucose (PG) value ≥ 11.1 mmol/L OR two fasting plasma glucose (FPG) ≥ 7.0 mmol/L OR PG 2hr sample of 75g OGTT ≥ 11.1 mmol/L OR A1C ≥ 6.5% (type 2 only)*.  

*In the absence of unequivocal hyperglycemia with acute symptoms, a second test on a different day must be done for confirmation of diagnosis.

□ Prediabetes (see back for diagnostic criteria)  
□ GDM  (50g OGTT ≥ 11.1) (see back for diagnostic criteria explanation)  
□ Other

---

**Diagnostic Laboratory testing**

Fasting glucose ______ mmol/L  
Random glucose ______ mmol/L  
A1C ______ %

**Confirmatory test: (2nd test on a different day)**

Fasting glucose ______ mmol/L  
Random glucose ______ mmol/L  
A1C ______ %

Glucose tolerance test: ______ g

1 hour ______ mmol/L  
2 hour ______ mmol/L

---

**Recommended clinical tests/screening:**

(Indicate if completed)

<table>
<thead>
<tr>
<th>Test</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fasting lipid profile</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Creatinine</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Urine microalbumin (i.e. ACR)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Retinopathy screen</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Resting ECG, if &gt; 40 yrs of age or diabetes duration &gt; 15 yrs</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>TSH (Type 1 diabetes)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ALT, CK (for statin therapy)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

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**Problems that may affect learning:**

□ language barrier: primary language ________________________  
□ physically challenged

□ mentally challenged □ literacy □ unsuitable for group education – Reason: ________________________

□ due to financial/social/emotional problems and/or attitude towards diabetes, this person would benefit from psychosocial counselling

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**Current Treatment**

□ Nutritional management  
□ Physical activity  
□ Oral agent(s)/injectable (drug, strength, dosing/frequency)

□ Insulin (type/frequency)

□ Other Medications

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Forward a copy of this referral via fax or mail to the following:

1) Provincial Diabetes Program for diabetes education and support (location of patient’s choice), see below for contact information

2) Diabetes Drug Program (for drug coverage) c/o: PEI Pharmacare, 16 Fitzroy St., Sullivan Bldg., Charlottetown, PE C1A 7N8 Tel: 1-902-368-4947 Fax: 1-902-368-4905

3) Family physician’s/NP office (where applicable)

Original copy to remain on patient’s chart at referral source.

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**Province/Region**:  
**Program**:  
**Contact Information**

<table>
<thead>
<tr>
<th>Program</th>
<th>Address</th>
<th>Telephone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Prince Diabetes Program</td>
<td>Harbourside Family Health Centre, 243 Heather Moyse Drive, Summerside, PE C1N 5R1 Tel: 902-432-2600 Fax: 902-432-2610</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Prince Diabetes Program</td>
<td>O’Leary Health Centre, 15 MacKinnon Drive, O’Leary, PE C0B 1V0 Tel: 902-859-0388 Fax: 902-859-3922</td>
<td></td>
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</tr>
<tr>
<td>Queens West Diabetes Program</td>
<td>Four Neighbourhoods Health Centre, 152 St. Peters Road, Charlottetown, PE C1A 7N8 Tel: 902-569-7562 Fax: 902-368-6936</td>
<td></td>
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<tr>
<td>Queens East Diabetes Program</td>
<td>Sherwood Business Centre, 161 St. Peters Road, Charlottetown, PE C1A 7N8 Tel: 902-368-4959 Fax: 902-894-0321</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kings Diabetes Program</td>
<td>Montague Health Centre, PO Box 877, 407 MacIntyre Avenue, Montague, PE C0A 1R0 Tel: 902-838-0787 Fax: 902-838-0986</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Diagnosis of Diabetes

1. Symptoms of diabetes plus “casual” plasma glucose (PG) value ≥ 11.1 mmol/L. Casual is defined as any time of the day without regard to time since last meal. The classic symptoms of diabetes include fatigue, polyuria, polydipsia, and unexplained weight loss.

   OR

2. A fasting plasma glucose (FPG) ≥ 7.0 mmol/L. Fasting is defined as no calorie intake for at least 8 hours.

   OR

3. The PG value in the 2-hour sample of the 75g OGTT is ≥ 11.1 mmol/L.

   OR

4. AIC ≥ 6.5%.

Confirmatory Test

In the absence of unequivocal hyperglycemia with acute symptoms, values above these criteria must be confirmed by a second test on a different day.

Glucose levels for diagnosis

<table>
<thead>
<tr>
<th>Category</th>
<th>AIC</th>
<th>FPG mmol/L</th>
<th>PG 1 hr after 75g glucose load mmol/L</th>
<th>PG 2 hr after 75 g glucose load, mmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediabetes</td>
<td>6.0 - 6.4%</td>
<td>6.1-6.9 (IFG)</td>
<td>N/A</td>
<td>7.8-11.0 (IGT)</td>
</tr>
<tr>
<td>Diabetes Mellitus (DM)</td>
<td>≥ 6.5% (type 2)</td>
<td>≥7</td>
<td>N/A</td>
<td>≥11.1</td>
</tr>
<tr>
<td>Gestational Diabetes (GDM)*</td>
<td>≥ 6.5%</td>
<td>≥5.3</td>
<td>≥10.6</td>
<td>≥ 9.0</td>
</tr>
</tbody>
</table>

*Screen at 24 to 28 weeks gestation with a 50g oral glucose challenge (earlier in high risk patients).

• If ≥ 11.1 mmol/L, GDM is present and the 75g OGTT is unnecessary.

• If 7.8-11.0 mmol/L, a 75g OGTT is recommended. If one of the following values is met or exceeded (with a 75g OGTT), GDM is present.
  • FPG≥5.3
  • 1 hr PG≥10.6
  • 2 hr PG≥9.0

Targets for Good Diabetes Control

Glycated Hemoglobin (HbA1c): Measure every 3 to 6 months, preferably every 3 months if not at target. Target for most patients: ≤ 7.0%

Alternate target (consider for patients in whom it can be achieved safely) ≤ 6.5%

Glycemic targets should be individualized based on age, duration of diabetes, risk of hypoglycemia, life expectancy and history of cardiovascular disease.

Blood glucose: Optimal glucose control in adults and children over age 12

• Fasting or AC 4-7mmol/L

• 1 or 2 hour PC 5-10 mmol/L (5-8 mmol/L for optimal control)

Lipids: Measure fasting at diagnosis and repeat every 1 to 3 years as clinically indicated

Primary target LDL-C ≤ 2.0mmol/L

ECG at baseline and every 2 years in patients:

• Age > 40 years • Duration of diabetes >15 years and age > 30 years. • End organ damage • Cardiac risk factors

Blood pressure: Measure at diagnosis and every 3 to 4 months thereafter unless otherwise indicated

• BP in people with DM <130/80

Screening for Diabetic Nephropathy using a random urine albumin to creatinine ratio

• Type 1 diabetes - annually after puberty in those with diabetes of ≥ 5 years’ duration

• Type 2 diabetes - at diagnosis and then annually

• Serum creatinine levels (should be measured) and a GFR annually in those patients with diabetes without albuminuria and at least every 6 months in those with albuminuria

Annual foot examination for all people with diabetes, starting at puberty. Those at higher risk for foot problems (previous ulceration, neuropathy, structural deformity, peripheral vascular disease and/or microvascular complications) may require more frequent foot examinations.

• Type 1 diabetes - annually after 5 years duration of Type 1 in post-pubertal individuals

• Type 2 diabetes - annually

Retinal Eye examination

• Type 1 diabetes - annually 5 years after the onset of diabetes in individuals ≥ 15 years of age

• Type 2 diabetes - at diagnosis and then every 1 to 2 years