

PATIENT EDUCATION AND RESOURCES

A Guide for Patients

What is Prediabetes?

Prediabetes refers to having blood sugar levels that are higher than normal, but not high enough to be considered diabetic. Pre-diabetes is also called impaired glucose tolerance or impaired fasting glucose. Pre-diabetes is treated by lowering high blood sugar levels through exercise and by following a healthy meal plan.

For support see the resources section!

I have type 2 Diabetes – what can I do?

Education: Diabetes education is an important first step. See the resources section and develop a monitoring plan with your care provider to help track your blood sugar, cholesterol, blood pressure etc.

Physical Activity: Regular physical activity helps your body lower blood sugar 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 sugar levels (see Glycemic index section).

Blood Pressure: High blood pressure can lead to eye disease, heart disease, stroke and kidney disease, so people with diabetes should try to maintain a blood pressure level below 130/80. To do this, you may need to change your eating and physical activity habits and/or take medication.

Medication: Besides activity and healthy eating, your doctor may prescribe medications and/or insulin.

What is Hypoglycemia?

Hypoglycemia means that the sugar in your blood has dropped (to less than 4 mmol/L). It can be caused by:

- Doing more physical activity than normal
- Not eating on time or enough
- Taking too much of your diabetes medication
- Drinking alcohol

What are the symptoms of Hypoglycemia?

- Dizziness, shakiness
- Sweating
- Weakness, drowsiness
- Intense hunger
- Headache
- Looking pale
- Sudden moodiness or behaviour changes (e.g. crying for no reason)
- Confusion
- Faster heart rate
- Tingling or numbness on your tongue or lips

If you experience these symptoms, check your blood sugar levels right away. If you don't have your meter with you, play it safe and treat the symptoms anyway.

How do I treat hypoglycemia?

Eat or drink a fast-acting carbohydrate. The best choice is 15g of glucose or sucrose in the form of tablet or solution. If this is not available, try:

- 15ml (3 tsp) or 3 packets of table sugar dissolved in water
- 175ml (3/4 cup) of juice or regular soft drink
- 6 Life Savers® (1=2.5g of carbohydrate)
- 15ml (1 tbsp) of honey

Hypoglycemia happens to everyone with diabetes from time to time, even if you're doing all you can to manage your diabetes. But if you're having frequent episodes, it may mean your medication needs to be adjusted. Be sure to talk to your doctor and always wear your MedicAlert® identification.

Glycemic Index and Diabetes

The glycemic index (GI) is a system of grouping carbohydrate foods (carbs) based on how they affect your blood sugar levels. See the reference in this guide. Carbohydrates are the sugars and starches in the foods you eat. This is what your body uses for energy. Carbohydrates are found in grains and cereals, dried peas and beans, fruits and vegetables, milk and yogurt, as well as sugar and sugar-containing foods. Some carbohydrate foods are broken down and absorbed quickly while others are broken down and absorbed more slowly.

What are the benefits of using low GI foods?

- Can help to 'even out' the highs and lows (more stable blood sugar)
- Can lower triglycerides & 'bad' cholesterol and may help your 'good' cholesterol
- May help you feel full for longer & eat less at the next meal or snack

Helpful Tips:

Introduce low GI foods gradually - include at least one low GI food at each meal and monitor their effects on your blood sugar level. A high GI food & a low GI food make an intermediate GI meal.

Eat a variety of foods each day - Do NOT exclude foods based only on the GI value. High GI foods are still good sources of energy. Monitor the amount of carbohydrates eaten at each meal and snack.

- Eating large amounts of low GI foods can still make blood glucose levels too high
- Checking your blood glucose before & after meals is the best way to see if you are eating the right amount of type of carbohydrate
- Aim to keep your blood glucose between 5 & 10 one to two hours after meals
- Choose foods from the low GI group more often.
- Monitor the amount of carbohydrates eaten at each meal and snack.

Low GI Menu Suggestions

See below for meal suggestion and the brief GI index reference guide.

Breakfast

- Use a low GI bread or cereal (see GI reference guide). Add some low fat milk or yogurt and fruit to kick start the day.
- Old fashioned oats with low fat milk and raisins.
- Poached egg on multigrain toast with a fresh orange.

Lunch Break

- Soups and sandwiches with a green salad or raw vegetables offer quick lunch solutions all year round.
- Sandwich made with a sprouted grain bread. Fill with tuna, salmon, lean meat or chicken; add lettuce, sprouts tomatoes &/or cucumber.
- Pumpernickel bagel topped with light cream cheese & smoked salmon.

Supper suggestions

- Base your meal on a low GI starch. Add plenty of vegetables & keep protein portions moderate
- Meatloaf made with rolled oats and grated vegetables (carrots & zucchini). Serve with new potatoes.
- Vegetable lasagna made with low fat cheese.

Snacktime!

To keep your energy up between meals, try the following nutritious snacks:

- Low fat milk & low GI cereal.
- Low fat yogurt and fresh fruit.
- Low fat milk & oatmeal cookies.
- Oat or oatbran muffins & fruit.
- Whole wheat pita and hummus.
- Stoned wheat thins or Ryvita™ with low fat cheese.

Resources:

See www.HealthLinkBC.ca or the handbook that was delivered to households throughout the province or call 8-1-1 (for TTY call 7-1-1). Visit the **Canadian Diabetes Association** at www.diabetes.ca or call toll free 1 800 226-8464 for further information. See Canada's Food Guide for healthy eating tips, available in multiple languages.

See www.ActNowBC.ca and Canada's Physical Activity Guide for tips on healthy eating and lifestyle. For assistance to quit smoking, see www.quitnow.ca or call 1 877 455-2233 (toll free in BC) to obtain self help materials.

Your family doctor may refer you to a local **Diabetes Education Clinic**. These clinics have courses and information to help you manage your diabetes. In addition to your family physician, in some parts of the province there are a number of other professionals who may assist you in the management of diabetes (**ADiabetes Team**).

Members of your diabetes team may include: Nurse educators, Nutritionists &/or specialists (example eye &/or foot doctors), Community programs etc. Your doctor will provide a referral if necessary.

A brief Glycemic Index (GI) reference guide

	Low GI Foods (55 or less) These give a slow rise in blood glucose levels	Medium GI Foods (56-69) These give a medium rise in blood glucose levels	High GI Foods (70+) These give a quick rise in blood glucose levels
Breads	<ul style="list-style-type: none"> Mixed grain Whole grain 100% Stone ground (Dempsters™) Pumpernickel Sprouted grain** (Silver Hills™, Healthy Way™) 	<ul style="list-style-type: none"> Whole wheat Pita Rye 	<ul style="list-style-type: none"> White bread White bagel Kaiser roll
Cereals	<ul style="list-style-type: none"> All Bran™ Bran Buds with psllium™ Large flake oats Oat bran Red River™ 	<ul style="list-style-type: none"> Bran Buds™ Bran Chex™ Grapenuts™ Life™ Shredded wheat™ Quick cooking oats Cream of wheat 	<ul style="list-style-type: none"> Bran flakes Corn Chex™ Cornflakes Cheerios™ Rice Krispies™ Rice Chex™ Instant cream of wheat
Grains	<ul style="list-style-type: none"> Parboiled rice Uncle Ben's converted rice™ Barley Bulgar (cracked wheat) Buckwheat Pasta/Noodles 	<ul style="list-style-type: none"> Basmati rice Brown rice Corn meal Couscous Wild rice 	<ul style="list-style-type: none"> White rice Jasmine rice Glutinous rice Short grain rice Instant rice
Starchy vegetables	<ul style="list-style-type: none"> Sweet potatoes Yams Taro 	<ul style="list-style-type: none"> New potato White potato Sweet corn 	<ul style="list-style-type: none"> Baking, Russet, Idaho potatoes Instant potatoes French fries
Other	<p>Legumes</p> <ul style="list-style-type: none"> Chick peas (garbanzo beans) Chana dal Kidney beans Lentils Soy beans Split peas Baked beans 	<ul style="list-style-type: none"> Black bean soup Green pea soup Arrowroot biscuits Breton crackers Oatmeal cookies Social tea biscuits Ryvita™ Stoned wheat thins Popcorn 	<ul style="list-style-type: none"> Vanilla wafers Graham wafers Rice cakes Soda crackers Pretzels

Adapted from: Practice-Based Learning Programs. *Diabetes Type 2: What's New?* Hamilton, Ontario: The Foundation for Medical Practice Education. 2009. Patient Handout, How to Handle Hypoglycemia, p18. www.fmpe.org; Vancouver General Hospital Diabetes Centre GI Index and Diabetes.