


Managing Diabetes and Reversing Prediabetes

Participant Guide



ALL RIGHTS RESERVED. This book contains material protected under International and Federal Copyright Laws and Treaties. Any unauthorized reprint or use of this material is prohibited. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without a written [or electronic notice] permission from the author.

Managing Diabetes and Reversing Prediabetes



LifeWorks


Confidential, not for distribution

1

1

Learning Objectives

1. Understanding diabetes
2. Winning Over Diabetes
 - Lifestyle Changes
 - Nutrition
 - Healthy Weight
 - Alcohol
 - Physical Activity
 - Mental Wellbeing
 - Medication
3. Useful resources



LifeWorks

Confidential, not for distribution

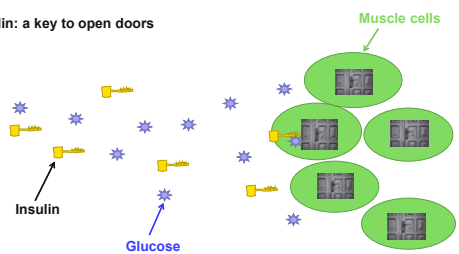
2

2

Understanding Diabetes

What is diabetes?

Role of insulin: a key to open doors



Insulin

Glucose

Muscle cells

LifeWorks

Confidential, not for distribution

3

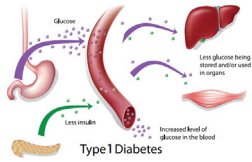
3

Understanding Diabetes

Types of diabetes?

Type 1 Diabetes:

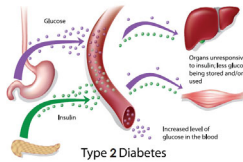
- Onset at a young age
- Immunodeficiency
- Little or no insulin production



Type 1 Diabetes

Type 2 Diabetes:

- Onset later in life
- Related to excess in weight
- Sedentary lifestyle
- Insulin resistance



Type 2 Diabetes

Prediabetes:

- Early alarm system
- REVERSIBLE

LifeWorks

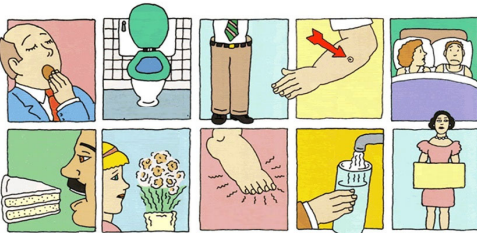
Confidential, not for distribution

4

4

Understanding Diabetes

Symptoms



LifeWorks

Confidential, not for distribution

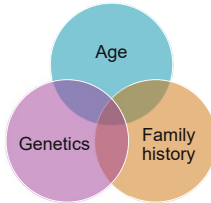
5

5

Understanding Diabetes

Who is at risk?

Non-Modifiable Risk Factors



LifeWorks

Confidential, not for distribution

6

6

Understanding Diabetes

Who is at risk?

Type 2 Diabetes Modifiable Risk Factors

- High blood pressure
- Smoking
- Sedentary lifestyle
- Overweight
- High fat and cholesterol levels

7

Understanding Diabetes

Diagnostic

Screening should be done every:

- 3 years for all individuals ≥ 40 years of age
- Yearly for individuals at high risk

Blood glucose measured through a blood test:

- Fasting Plasma Glucose Test (FPG)
- 2-hour Plasma Glucose (2hPG)
- Glycated Hemoglobin (Hemoglobin A1C)
- Random Plasma Glucose (Random PG)

Early detection of Type 2 diabetes coupled with lifestyle changes can efficiently allow blood glucose levels to reach back to target

8

Understanding Diabetes

Blood Glucose and HbA1C

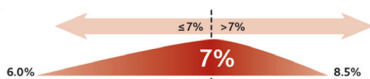
Blood Glucose:

Optimal values are:

- Between 4 and 7 mmol/L when fasting
- Between 5 to 10 mmol/L 2 hours after a meal

A1C:

Optimal values are:



9

Understanding Diabetes Complications

Increased risks of:

- Heart disease
- Impaired vision
- Hypertension
- Kidney diseases
- Neuropathies

LifeWorks Confidential, not for distribution 10

10

Understanding Diabetes Lifestyle Changes: Nutrition

Carbohydrate 101

- Include naturally occurring sugars:
- Milk and alternatives
- Starchy foods
- Legumes
- Fruits and vegetables

LifeWorks Confidential, not for distribution 11

11

Understanding Diabetes Lifestyle Changes: Nutrition

Carbohydrate 101

- Limit free sugars found in:
- Cookies
- Sugary drinks (even 100% fruit juice)
- Candy
- Cakes
- Processed foods

SUGAR SWEETENED BEVERAGES

LifeWorks Confidential, not for distribution 12

12

Understanding Diabetes

Lifestyle Changes: Nutrition

Dietary Fibre 101

- Most Canadians don't get enough fibre!
- Recommended total dietary fibre intake **25 to 50 g/day** for adults with diabetes



13

Understanding Diabetes

Lifestyle Changes: Nutrition

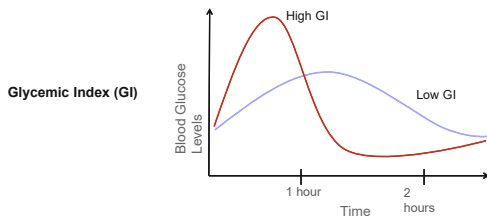
Rule of Thumb
More than 4 g of fibre and less than 5 g of sugar per serving

| Cereal A | | Cereal B | |
|--------------------|--------------|--------------------|--------------|
| Nutrition Facts | | Nutrition Facts | |
| Per 30 g (1.06 oz) | | Per 30 g (1.06 oz) | |
| Amount | | Amount | |
| % Daily Value | | % Daily Value | |
| Calories 100 | | Calories 150 | |
| Fat 1 g | 2% | Fat 0 g | 0% |
| Saturated 0.5 g | 1% | Saturated 0 g | 0% |
| + Trans 0 g | | + Trans 0 g | |
| Cholesterol 0 mg | | Cholesterol 0 mg | |
| Sodium 100 mg | 7% | Sodium 100 mg | 4% |
| Carbohydrate 20 g | 4% | Carbohydrate 27 g | 4% |
| Fibre 7 g | 28% | Fibre 1 g | 2% |
| Sugars 1 g | | Sugars 10 g | 20% |
| Protein 3 g | | Protein 2 g | |
| Vitamin A 0% | Vitamin C 0% | Vitamin A 0% | Vitamin C 0% |
| Calcium 2% | Iron 30% | Calcium 2% | Iron 30% |

14

Understanding Diabetes

Lifestyle Changes: Nutrition



15

Understanding Diabetes
Lifestyle Changes: Nutrition

Fat Intake

Daily fat consumption recommendation:

- Replace saturated fats with unsaturated fats
- Limit cholesterol
- Avoid trans fat



16

Understanding Diabetes
Lifestyle Changes: Nutrition

Fat Intake

Daily fat consumption recommendation:

- Consume more unsaturated fats, like omega 3 found in foods such as olive oil, nuts, and fish
- Read the labels - For example, % Daily Value in the Nutrition Facts Table)



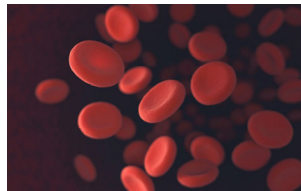
17

Understanding Diabetes
Lifestyle Changes: Nutrition

Blood Cholesterol

General recommended target level:

LDL-cholesterol < 2.0 mmol/L



18

Understanding Diabetes
Lifestyle Changes: Nutrition

Fat Intake

11 g total fat
2.6 g saturated



16.1 g total fat
6.8 g saturated



LifeWorks

Confidential, not for distribution

19

19

Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake



1 teaspoon of salt

= 2300 mg of sodium

LifeWorks

Confidential, not for distribution

20

20

Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake

950 mg of sodium



0-10 mg of sodium



190 mg of sodium



65 mg of sodium



LifeWorks

Confidential, not for distribution

21

21

Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake

Optimal Value should be less than 130/80 mmHg



22

Understanding Diabetes
Lifestyle Changes: Healthy Weight



23

Understanding Diabetes
Lifestyle Changes: Healthy Weight

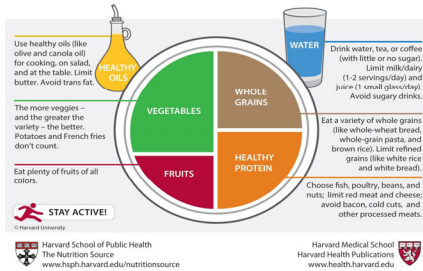
HOW TO PRACTICE MINDFUL EATING

Choose the first few bites of one meal or snack and follow these 4 steps.

| | |
|--|--|
| <p>1. REMOVE DISTRACTIONS. Turn off the TV, and close your books. Close your laptop. It's time to give all your attention to what you are eating.</p> | <p>2. SLOW YOUR PACE. Use chopsticks or small utensils, and slow down your fork between bites. Eat with your non-dominant hand, or chew each bite 15 times.</p> |
| <p>3. PUT YOUR SENSES TO WORK. Notice the food's textures, flavors, and aromas as well as your own feelings of hunger or fullness.</p> | <p>4. DON'T JUDGE. Don't judge what you're eating or how you're eating it. Just focus on bringing full awareness to the eating experience.</p> |

24

Understanding Diabetes
Lifestyle Changes: Healthy Weight



LifeWorks

Confidential, not for distribution

25

25

Understanding Diabetes
Lifestyle Changes: Healthy Weight

Energy-Boosting Snacks

- ½ cup (125 ml) whole grain cereals and ½ cup (125 ml) 1% milk
- 1 slice of whole grain bread and 1 tbsp (15 ml) of peanut butter
- 1 fruit with 12 almonds
- 5-6 whole wheat crackers and 2 tbsp (30 ml) of canned tuna or salmon
- Vegetables and 2 tbsp (30 ml) of hummus



LifeWorks

Confidential, not for distribution

26

26

Understanding Diabetes
Lifestyle Changes: Healthy Weight

Example One-Day Menu

| | |
|------------------------|--|
| BREAKFAST | 2 slices whole grain bread ½ banana 1 cup (250 ml) milk or ½ cup (175 ml) yogurt 2 tbsp (30 ml) peanut butter or 1 oz (30 g) cheese or 1 egg Tea or coffee |
| MORNING SNACK | Grapes 1/3 cup (75 ml) plain yogurt |
| LUNCH | 2 slices of whole grain bread or 1 cup (250 ml) noodles 2-3 oz (60 g-90 g) of chicken or fish 1 tbsp (15 ml) non-hydrogenated margarine Carrots and broccoli or salad (lettuce, tomato, cucumber) |
| AFTERNOON SNACK | ½ cup (60 ml) of unsalted nuts and 1 medium fresh fruit (e.g. plum, nectarine or pear) |
| DINNER | 2/3 cup (150 ml) rice or 1 medium potato Vegetables to cover ½ the plate 2-3 oz (60 g-90 g) salmon 1 tbsp (15 ml) olive oil 1 cup (250 ml) berries 1 cup (250 ml) 1% milk |
| EVENING SNACK | 1-2 tbsp (15-30 ml) peanut butter and 4 whole grain crackers Or 1 oz (30 g) low fat cheese and 1 apple |

LifeWorks

Confidential, not for distribution

27

27

Understanding Diabetes
Lifestyle Changes: Alcohol

Can I drink?

How much can I drink?

When should I drink?



28

Understanding Diabetes
Lifestyle Changes: Physical Activity

Benefits:

- Lowers your blood glucose
- Helps body use insulin more efficiently
- Reduces body fat
- Helps to build and tone muscles
- Lowers your risk for heart disease
- Reduces stress and enhances quality of life

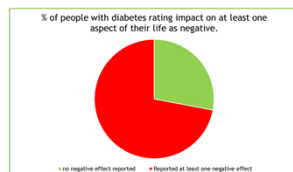


29

Understanding Diabetes
Lifestyle Changes: Physical Activity

Harms of diabetes distress:

- Contributes to increasing blood glucose levels
- Contributes to strong negative emotions
- Decreases level of energy
- Negatively impacts quality of life.
- Contributes to high blood pressure



30

Understanding Diabetes
Lifestyle Changes: Physical Activity

How stress relates to diabetes?

- Stressed people tend to take less good care of themselves
- Might resort to drinking more alcohol
- Might tend to avoid physical activity
- Might make unbalanced food choices
- Stress hormones affect blood glucose levels directly
- Diabetes can induce more stress



31

Understanding Diabetes
Lifestyle Changes: Physical Activity

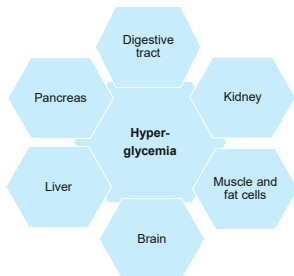
How stress relates to diabetes?



32

Understanding Diabetes
Lifestyle Changes: Physical Activity

Medication



33

Understanding Diabetes
Lifestyle Changes: Physical Activity

Recent research into low carbohydrate (or ketogenic diets)

Potential benefits:

- Controlling blood glucose, HgbA1c
- Weight loss through increased satiation
- Reducing TGs while increasing HDL (good cholesterol) however, might increase LDL



34

Understanding Diabetes
Low-carbohydrate or ketogenic diets

Reducing carbohydrates to <20-100g/day



35

Understanding Diabetes
Low-carbohydrate or ketogenic diets

Potential Risks:

- Hypoglycemia (low blood sugar)
- Constipation
- Renal (kidney) problems
- "Keto flu" and readaption
- Long term effects?

Based on preference but always consult your physician

36

Understanding Diabetes

Conclusion

1. Include regular physical activity
2. Reach and maintain a healthy weight
3. Include high-fiber and low sodium foods, and choose healthier fats.
4. Avoid skipping meals and have at least 3 meals per day and add snacks throughout your day, if needed
5. Manage your stress level



LifeWorks

Confidential, not for distribution

37

37

Understanding Diabetes

Useful Resources

Canadian Diabetes Association – www.diabetes.ca



Dietitians of Canada – www.dietitians.ca



LifeWorks

Confidential, not for distribution

38

38

Access your Employee and Family Assistance Program (EFAP)

For confidential support and access to resources, contact your EFAP using the LifeWorks app or go to login.lifeworks.com.

Contact your leader or HR for additional information about the resources your organization's EFAP provides.



LifeWorks

Confidential, not for distribution

39

39

Just *the* Basics



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.

TIPS FOR HEALTHY EATING

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

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. A healthy weight helps with blood glucose control and is healthier for your heart.

Eat more high-fibre foods such as whole grain breads and cereals, lentils, dried beans and peas, brown rice, vegetables and fruits.

Foods high in fibre may help you feel full and may lower blood glucose and cholesterol levels.

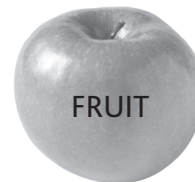
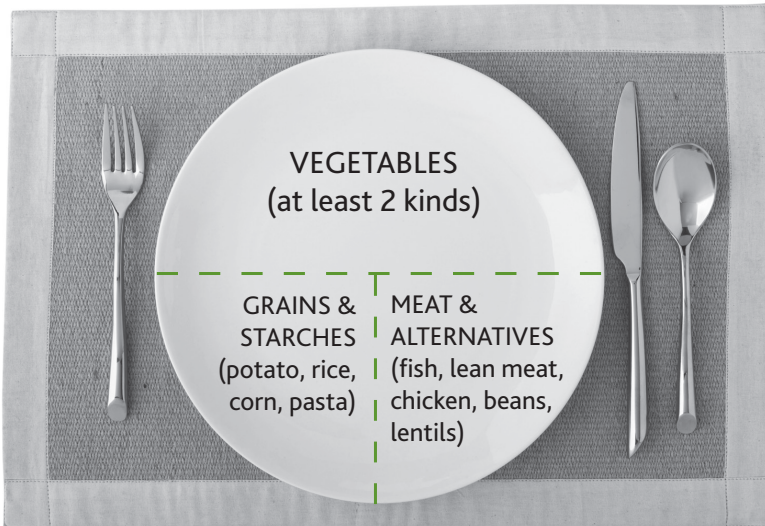
If you are thirsty, drink water.

Drinking regular pop and fruit juice will raise your blood glucose.

Add physical activity to your life.

Regular physical activity will improve your blood glucose control.

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.

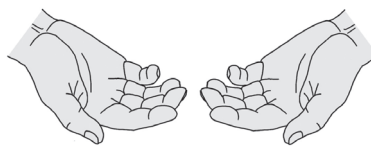
It's natural to have questions about what food to eat. A registered dietitian can help you include your favourite foods in a personalized meal plan.

Handy portion guide

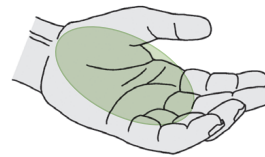
Your hands can be very useful in estimating appropriate portions. When planning a meal, use the following portion sizes as a guide:



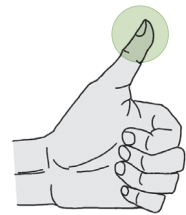
FRUITS*/GRAINS & STARCHES*:
Choose an amount the size of your fist for each of Grains and Starches, and Fruit.



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.



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

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

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

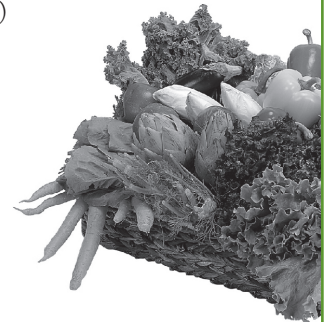


Lunch:

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

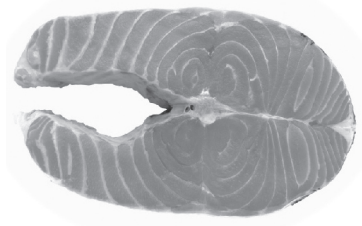


Dinner:

Potato (1 medium) or rice (⅔ 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)

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.

*This document reflects the 2013 Canadian Diabetes Association Clinical Practice Guidelines. ©2013 Copyright

 Canadian
Diabetes
Association

Related articles: *Physical activity and diabetes, Fibre and diabetes, Glycemic index, Eating away from home, Alcohol and diabetes, Managing weight and diabetes*

diabetes.ca | 1-800 BANTING

Healthy Eating in the Workplace for People with Type 2 Diabetes

A busy workday can make healthy eating and managing Type 2 Diabetes a challenge. Arriving at your workplace ready to eat healthy will set you up for success!

Healthy eating for Type 2 Diabetes helps keep blood glucose (sugar) levels stable and in a healthy range, which can decrease the risk of diabetes complications such as heart disease, kidney, eye, or nerve cell damage.

This fact sheet will help you to eat healthy and manage your diabetes while at work.



Steps you can take

1. Bring a healthy lunch to work as often as you can.

When you pack and bring your lunch to work you can manage your portion sizes and bring healthier foods. Include a variety of foods from all the four food groups: vegetables and fruit, grain products, milk and alternatives and meat and alternatives. See the table below for some healthy food ideas to bring from home.

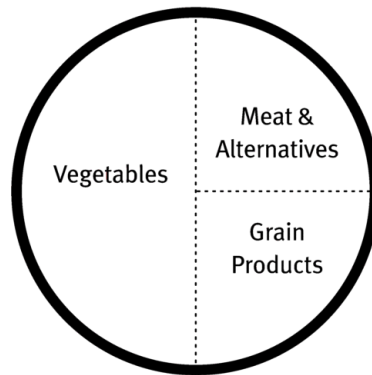
2. Keep healthy foods at your work.

If you don't like making lunch at home or if you don't have time, bring some supplies to work to make your lunch. With keeping healthy foods at work you may be less tempted to go out and buy foods such as muffins, cookies, pizza or French fries. For example, peanut butter, tuna, fruit, whole grain crackers, low-fat milk or yogurt (milk fat less than 2%), nuts and seeds are good choices.

3. Make wise food choices when eating out at work.

Even with your best efforts to pack your own lunch or snacks, there may be days when you buy a meal or snack at your workplace cafeteria or from the vending machine. Here are some tips to make healthier choices:

Cafeteria



- | Ask for half of your plate to be filled with salad or steamed cooked vegetables. Divide the rest of your plate equally between meat, poultry, fish or legumes and fibre-rich carbohydrate foods like brown rice or potatoes. This can help you manage your portions and have a higher-fibre and carbohydrate-balanced meal.
- | Look for dishes that are steamed, poached, baked, stir-fried or grilled. These cooking methods use less fat than frying.
- | Choose broth-type soups or those made with beans, peas, lentils and vegetables.
- | Choose a smaller plate rather than a larger plate.
- | Take a glass of water to drink with your meal.

Vending Machines

Vending machines often have very limited choices. Look for smaller packages and healthier food options.

Look for:

- | unsweetened or calorie-free beverages
- | fruit, nut mixes or trail mixes (unsalted if possible)
- | low-fat milk and yogurt

- | sandwiches made with whole grain bread
- | lower-fat cheese (milk fat less than 20%)
- | salads with dressings on the side.

Avoid: chocolate bars, chips, cookies and other baked goods.

4. Plan your meals and snacks around your schedule.

Look ahead at your work schedule and plan your day so that you have the chance to eat every four to six hours. If you have a meeting that falls at a time that you should be eating, eat before your meeting or bring your lunch or snack with you. This will help you to manage your blood glucose levels and your appetite.

5. Avoid eating when you are bored or stressed.

If you feel stressed or bored at work, rather than reaching for something to eat, take a break and go for a walk, stand up and stretch, march on the spot or visit a co-worker.

6. Find a place to eat away from your desk.

Try to take a break and eat in a location away from your desk. This way you can focus on enjoying your meal in a more relaxed environment.

7. Include some physical activity during your workday.

Try to take short walks around the office, walk up or down a few flights of stairs or do gentle calf-raises on the spot. Exercise can help with your blood glucose levels.

8. Limit work place 'treats'.

'Treats' around the workplace or at meetings can often be unhealthy foods like high-fat pastries, cakes and cookies. You can suggest fresh fruit, low-fat yogurt and small mini-muffins as healthier options. You can also bring a healthy snack with you to help avoid being tempted. See the table below for healthy meal, snack and beverage ideas.

9. Set a healthy eating goal to help you make healthy choices at work.

Setting a goal is a good place to start toward healthy eating in the workplace. A goal will help you focus on one step that you can take, and when you reach that goal, you can work on another. See Additional Resources for more information about goal setting.

10. Seek support.

Find out whom at work is also managing diabetes or another type of condition and support each other. Go for walks, share healthy recipes and encourage each other.

Healthy Meals, Snacks and Beverages

Enjoy these healthy meals and snacks and beverages at work:

| | |
|-------------|--|
| Lunch ideas | <ul style="list-style-type: none"> sandwiches or wraps made with whole-grain breads, lean meat and vegetables salads made with green, leafy vegetables or grain salads made with lean meat and lots of vegetables - other topping ideas include feta cheese, sliced cucumber, carrot, peppers and onions and unsalted nuts and seeds whole grain crackers topped with sliced, boiled egg with cut-up carrots on the side left over chicken or beef stir-fry and brown rice make your own burrito: brown rice beans and vegetables in a wholegrain tortilla lower-fat cheese and sliced tomato on a whole grain roll unsweetened whole grain cereal with low-fat milk and unsalted nuts left-over, cooked chicken, beef or pork in a whole-grain pita with lettuce and tomato home-made or ready-to-eat, sodium reduced bean, peas or lentil and vegetable soup with whole grain roll salmon mixed with left over brown rice, chopped carrots and oil and vinegar dressing peanut butter on whole-grain bread with sliced banana mixed bean salad with chopped cucumber and onion, topped with an oil and vinegar dressing with pita and hummus on the side |
|-------------|--|

| | |
|-----------------------|--|
| <p>Snack ideas</p> | <ul style="list-style-type: none"> fresh whole fruits such as apples, pears, and oranges with low-fat cheese unsweetened oatmeal and banana mixed unsalted nuts and an unsweetened fruit cup lower-fat cheese with whole grain crackers vegetables such as cucumber, carrots, broccoli and cauliflower with hummus peanut butter spread on whole grain crackers hard boiled egg and fresh cut vegetables low-fat yogurt topped with whole grain, unsweetened cereal sliced apple with peanut butter cherry tomatoes with low fat cheese cut into cubes |
| <p>Beverage ideas</p> | <ul style="list-style-type: none"> water (carry a bottle of water with you or leave it at your desk) unsweetened tea or herbal tea unsweetened coffee diet or sugar free pop low-fat milk fortified low-fat soy beverage |

For the best way to fit these ideas into your diabetes plan see a Registered Dietitian at a Diabetes Education program.

Special considerations:

- | Understand how to avoid a low blood glucose and be prepared at work to deal with a low blood glucose if it happens. See Additional Resources below for more information.



Additional Resources

- | How to Set SMART Goals
<http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=J8XuUAM=&PreviewHandout=bA==>
- | Healthy Snacks for Type 2 Diabetes
<http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=JMDsXwY=&PreviewHandout=bA==>

These resources are provided as sources of additional information believed to be reliable and accurate at the time of publication and should not be considered an endorsement of any information, service, product or company.



Notes

Distributed by:



Glycemic Index & Managing Diabetes

making healthy choices easy

Healthy eating is important for everyone, including people living with diabetes. Enjoying healthy foods and being active will help manage your blood glucose levels (BGLs) and your body weight. In fact healthy eating for people with diabetes is similar to recommendations for everyone. There is no need to prepare separate meals or buy special foods.

Studies around the world show that following a low GI diet significantly helps people with type 1 and type 2 diabetes improve their BGLs.

Steps for better glucose control – the Low GI way:

STEP 1

Make the Switch from High to Low GI Foods

Using the Glycemic Index (GI) is easy as all you need to do is swap high GI foods with healthy low GI foods. Try and include at least one low GI food at every meal or snack. When shopping look for the Glycemic Index Symbol for a healthier choice.

For more info on the GI Symbol Program & to sign up for the free newsletter visit www.gisymbol.com

Swap High for Low GI

| | Minimise high GI options | Maximise lower GI alternatives |
|-----------------------------------|---|---|
| Breads | Soft white breads | Authentic sourdough |
| | Light & airy wholemeal & white breads | Dense, wholegrain/multigrain low GI & pumpernickel |
| Cereals | Most refined, commercial, processed cereals | Traditional grains like rolled oats, pearl barley, quinoa & cereals made from them like natural muesli |
| Main meal carbs and starchy foods | Potatoes: mashed, chips and French fries | Carisma™ potatoes, sweet potato, parsnip, corn, lentils, chickpeas, kidney, cannellini bean, baked beans |
| | Jasmine, calrose, arborio, glutinous, short grain, brown or white rice | Basmati, low GI white or brown rice e.g. Doongara, prepared sushi made from traditional Japanese rice |
| | Polenta, millet | Pasta cooked 'al dente', soba noodles, pearl couscous, buckwheat, quinoa, pearl barley |
| Snacks | Water crackers, crispbread, doughnuts, confectionary, processed fruit bars, pretzels, rice cakes and crackers | Fresh fruit such as apples, pears, bananas, grapes, kiwi fruit; wholegrain crackers; dried fruit and nuts; low fat yoghurt; muesli bars; nut, seed & grain bars |
| Sweeteners | Sugar, golden syrup, treacle | Pure maple syrup, LoGICane™ sugar, pure floral honey |
| Beverages | Cordials, soft drinks | Water, fruit juices (limit to 150ml) reduced or low fat milk or soy drink |

STEP 2

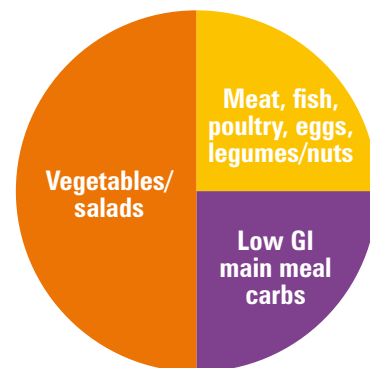
Keep carbohydrate portions moderate

Having diabetes doesn't mean that you need less carbohydrate than anybody else. It means you need to be more aware of the amount of carbohydrate foods you eat. By spreading out your carbohydrate rich foods evenly throughout the day, you can maintain energy levels better and keep BGLs within the target range. Managing your diabetes depends on both quality and quantity – choosing low GI foods doesn't mean you can eat as much as you want.

STEP 3

Eat regular meals

There is no need for a special diet when you have diabetes – just a healthy balance in both the amount and type of foods that you eat. Most people find that their BGLs improve if they space out their meals and carbohydrate intake throughout the day. You also need to balance the quantity of protein (meats and alternatives), fats and oils, fruit and vegetables in your meals. This is what a healthy plate should look like:



STEP 4

Exercise Regularly for a Healthy Weight

Being physically active everyday will help improve your BGLs and general health. Weight bearing exercises such as walking will also help build strong bones and strengthen your muscles so they burn fat more efficiently. You will be more energised and feel better overall. Aim for at least 30 minutes to 60 minutes of moderate paced exercise everyday – ideally on top of an active lifestyle. If you haven't done much exercise for a long time it's important to check with your GP.



EXCHANGE VALUE GUIDE:

some carbohydrate food ideas that equate to 1 exchange (15g of Carbohydrates)

An exchange system is an easy way to begin counting carbohydrates. Each serving in the starch, fruit and milk group contains about the same amount of carbohydrates — about 15 grams a serving — also called one carbohydrate choice.

Your dietitian may recommend a certain number of daily exchanges from each food group based on your individual needs. Together you'll decide the best way to spread the exchanges throughout the day. This can help to keep your BGLs within your target range.

Breads, cereals and starchy vegetables

1 exchange =

- 170g (¾ cup) cooked (water) rolled oats
- 30g (½ cup) natural muesli
- 30–40g (½–½ cup) high fibre breakfast cereal
- 1½ whole wheat biscuit
- 1 slice dense wholegrain bread (40g)
- 1 slice authentic sourdough, soy & linseed bread or pumpkin bread (40g)
- 1 slice dense fruit loaf (40g)
- 1 muesli bar (30g)
- 2 wholegrain crisp breads (24g)
- ½ cup cooked pasta, pearl couscous, quinoa
- ½ cup cooked rice or egg noodles
- ½ cup cooked or canned chick peas, kidney beans, cannellini or borlotti beans
- ⅔ cup cooked lentils
- 1 boiled/cooked medium potato (140g)
- ½ large boiled sweet potato (90g)

Dairy

1 exchange =

- 1 cup (250mL) reduced or low fat milk or calcium fortified soy milk
- ½ tub (100g) reduced or low fat yoghurt with fruit
- ⅓ cup (90g) reduced or low fat custard or low GI dairy snack
- 2 scoops (50g) reduced fat ice cream

Fruit

1 exchange =

- 1 piece of fruit (100g) such as small banana, apple, or pear
- 2 stone fruits such as apricots, kiwi fruit, or plums
- ½–1 cup (100–200g) diced or canned fruit (no added sugar or in juice)
- Small handful of dried fruit such as prunes (50g), apricots (40g), apples (26g)
- 150ml (½ cup) 100% fruit juice (no added sugar)

Quantities have been included as a general guide only. For individualised advice on your own diet the services of an Accredited Practising Dietitian (APD) are recommended.

Your low GI diabetes diet checklist

- ✓ Eat 3 regular meals a day.
- ✓ Include moderate quantities of low GI carbohydrate foods at each meal.
- ✓ Eat wholegrain and high fibre cereals, breads and grains daily – look for the GI symbol.
- ✓ Eat at least 3 cups (300g) of vegetables every day.
- ✓ Eat at least 2 pieces (200g) of fruit every day – include at least one low GI choice.
- ✓ Include legumes (canned or dried peas, beans or lentils) in your diet at least twice a week.
- ✓ Choose lower fat dairy products (or calcium-enriched alternatives) in your diet daily.
- ✓ Eat a handful of nuts regularly.
- ✓ Use olive and/or canola oils in cooking and salads and poly- and/or mono-unsaturated margarines and spreads instead of butter and butter blends.
- ✓ Eat fish (100g or more) at least twice each week.
- ✓ Eat lean red meat and poultry in moderately sized 100g portions 3–4 times a week.
- ✓ If you drink alcohol it is recommended to drink no more than 2 standard drinks per day.
- ✓ Drink 6–8 glasses of water, every day.

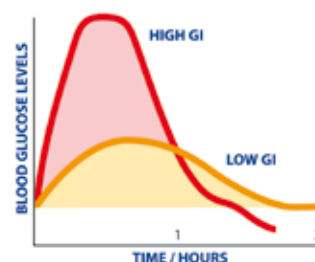


To make healthy choices easier we developed the GI Symbol Program, a not-for-profit health promotion initiative backed by the University of Sydney and JDRF (Australia). The GI Symbol is a powerful tool for quickly and reliably making healthy food choices when grocery shopping. It's your guarantee that the GI value stated near the nutrition information label is accurate and that the food meets strict nutritional criteria.

A free monthly newsletter informs you of the most recent findings from around the world. (Register at <http://ginews.blogspot.com>)

Glycemic index

The Glycemic Index (GI) is a relative ranking of carbohydrate in foods according to how they affect blood glucose levels. Foods with a low GI (GI ≤ 55) release glucose into the bloodstream at a slow sustainable rate, and have proven benefits for health.



* The Low GI Symbol is a registered certified trade mark owned by the Glycemic Index Foundation