

Managing Diabetes and Reversing Prediabetes

Participant Guide



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Managing Diabetes and Reversing Prediabetes



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Learning Objectives

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



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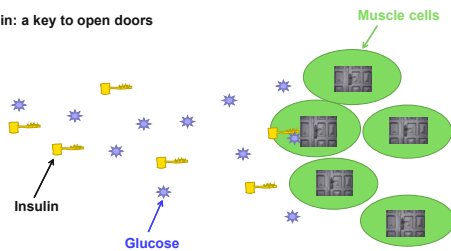
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Understanding Diabetes

What is diabetes?

Role of insulin: a key to open doors



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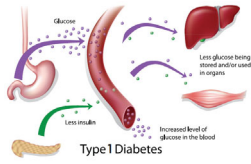
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Understanding Diabetes

Types of diabetes?

Type 1 Diabetes:

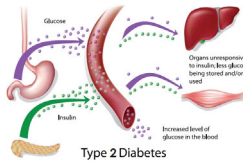
- Onset at a young age
- Immunodeficiency
- Little or no insulin production



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

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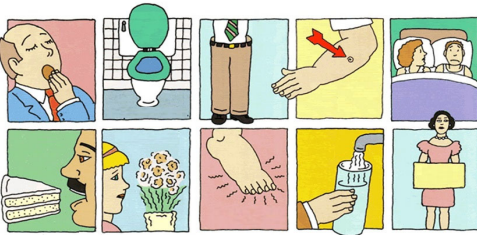
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Understanding Diabetes

Symptoms



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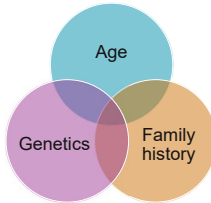
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Understanding Diabetes

Who is at risk?

Non-Modifiable Risk Factors



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Understanding Diabetes

Who is at risk?

Type 2 Diabetes Modifiable Risk Factors

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

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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

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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:

$\leq 7\%$ $> 7\%$

6.0% 7% 8.5%

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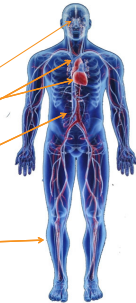
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Understanding Diabetes

Complications

Increased risks of:

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



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Understanding Diabetes

Lifestyle Changes: Nutrition

Carbohydrate 101

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



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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

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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



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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 oz) (25g)	Per 30 g (1 oz) (25g)
Amount	Amount
% Daily Value	% Daily Value
Calories 100	Calories 100
Fat 1 g 2%	Fat 1 g 2%
Saturated 0.5 g 1%	Saturated 0.5 g 1%
+ Trans 0 g	+ Trans 0 g
Cholesterol 0 mg	Cholesterol 0 mg
Sodium 100 mg 2%	Sodium 100 mg 2%
Carbohydrate 20 g 4%	Carbohydrate 20 g 4%
Fibre 7 g 14%	Fibre 1 g 2%
Sugars 1 g	Sugars 10 g 20%
Protein 3 g	Protein 2 g
Vitamin C 0%	Vitamin C 0%
Calcium 2%	Calcium 2%

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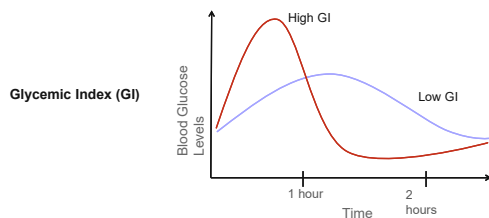
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Understanding Diabetes

Lifestyle Changes: Nutrition



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Understanding Diabetes

Lifestyle Changes: Nutrition

Fat Intake

Daily fat consumption recommendation:

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



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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)



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Understanding Diabetes

Lifestyle Changes: Nutrition

Blood Cholesterol

General recommended target level:

LDL-cholesterol < 2.0 mmol/L



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Understanding Diabetes
Lifestyle Changes: Nutrition

Fat Intake

11 g total fat
2.6 g saturated



16.1 g total fat
6.8 g saturated



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Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake



1 teaspoon of salt

= 2300 mg of sodium

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Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake

950 mg of sodium



0-10 mg of sodium



190 mg of sodium



65 mg of sodium



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Understanding Diabetes
Lifestyle Changes: Nutrition

Sodium Intake

Optimal Value should be less than 130/80 mmHg



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Understanding Diabetes
Lifestyle Changes: Healthy Weight



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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.



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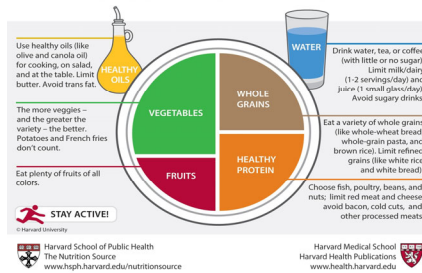
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Understanding Diabetes

Lifestyle Changes: Healthy Weight



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Understanding Diabetes

Lifestyle Changes: Healthy Weight

Energy-Boosting Snacks

- $\frac{1}{2}$ cup (125 ml) whole grain cereals and $\frac{1}{2}$ 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



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Understanding Diabetes

Lifestyle Changes: Healthy Weight

Example One-Day Menu

BREAKFAST	2 slices whole grain bread $\frac{1}{2}$ banana 1 cup (250 ml) milk or $\frac{1}{2}$ 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 $\frac{1}{2}$ 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	$\frac{1}{2}$ cup (60 ml) of unsalted nuts and 1 medium fresh fruit (e.g. plum, nectarine or pear)
DINNER	$\frac{2}{3}$ cup (150 ml) rice or 1 medium potato Vegetables to cover $\frac{1}{2}$ 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

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Understanding Diabetes

Lifestyle Changes: Alcohol

Can I drink?

How much can I drink?

When should I drink?



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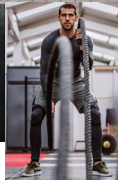
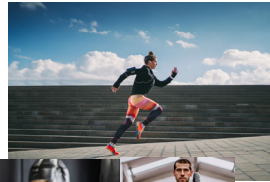
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Understanding Diabetes

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



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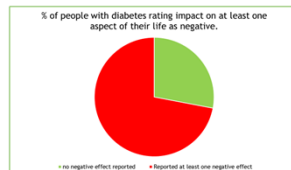
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Understanding Diabetes

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



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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



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Understanding Diabetes
Lifestyle Changes: Physical Activity

How stress relates to diabetes?



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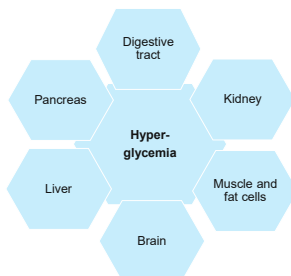
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Understanding Diabetes
Lifestyle Changes: Physical Activity

Medication



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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



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Understanding Diabetes

Low-carbohydrate or ketogenic diets

Reducing carbohydrates to
<20-100g/day



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Understanding Diabetes

Low-carbohydrate or ketogenic diets

Potential Risks:

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

Based on preference but always consult your physician

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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



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Understanding Diabetes

Useful Resources

Canadian Diabetes Association – www.diabetes.ca



Dietitians of Canada – www.dietitians.ca



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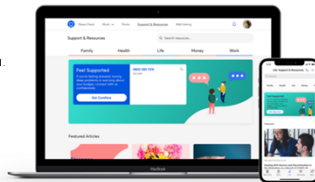
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Access your Employee and Family Assistance Program (EFAP)

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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.



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