



Diabetes Awareness



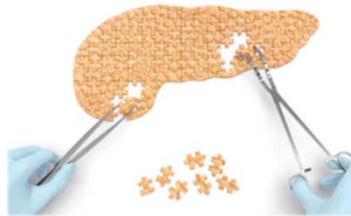
Agenda

- What is diabetes?
- Diabetes prevalence
- Different types of diabetes
- Risk factors
- Signs and symptoms
- Diabetes treatment and management



The Role of Insulin

- Hormone made by the pancreas
- Insulin opens the door (functions as a key)
- Delivers glucose (energy) from the blood to the tissues



The Role of Insulin

- When you eat, your body breaks down food into glucose
- At this point, your pancreas is supposed to be releasing insulin
- Insulin serves as a key to open your cells and to allow the glucose to enter, and allow you to use this glucose for energy
- With diabetes, this system does not work¹

Diabetes Prevalence

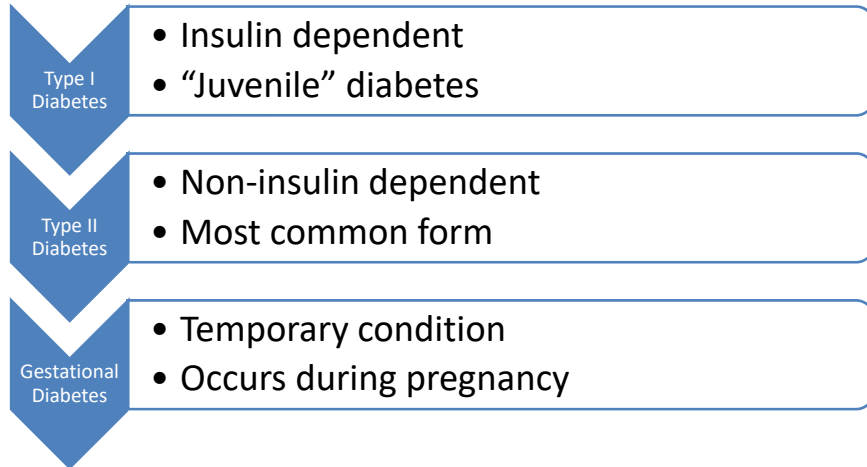
- Diabetes can develop in anyone
- Numbers of individuals impacted by diabetes has been dramatically increasing
- Worldwide, it afflicts more than 380 million people¹
- WHO estimates that by 2030, that number of people living with diabetes will more than double¹



Impact of Diabetes

- Increased risk for hospitalization²:
 - 3x more likely to be hospitalized with CVD
 - 12x more likely to be hospitalized with end-stage renal disease
 - 20x more likely to be hospitalized for lower-limb amputation
- Foot ulceration affects 15%-25%²
- 57% of Canadians with diabetes report they can't adhere to prescribed treatment due to the high out-of-pocket cost of medications, devices and supplies²

Types of Diabetes



Signs and Symptoms

-
- Unusual thirst
 - Frequent urination
 - Weight change (gain or loss)
 - Extreme fatigue or lack of energy
 - Blurred vision
 - Frequent or recurring infections
 - Cuts and bruises that are slow to heal
 - Numbness in the hands and feet

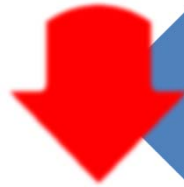
Type I Diabetes

- Most severe form of diabetes
- Characterized by the immune system attacking its own pancreas
- Sugar stays, and builds up, in the blood and glucose is prevented from entering the cells, leading to starvation of those cells
- If left untreated, the high level of blood sugar can damage eyes, kidneys, nerves and the heart

Treatment – Type I Diabetes

- Type I diabetes is treatable using insulin injections
- This outside source of insulin acts as a key to bring glucose to the body's cells
- Amount of insulin to take is based on many factors including:
 - Food
 - Exercise
 - Stress
 - Emotions and general health

Insulin - The Balancing Act



Taking too much insulin

- Body burns too much glucose
- Blood sugar can drop to dangerous levels
- Hypoglycemia



Taking too little insulin

- Body can be starved of the energy it needs
- Blood sugar can rise dangerously high
- Hyperglycemia

Risk Factors for Type I Diabetes

- Researchers are still seeking out the cause
- It is known that having a family member with type I diabetes slightly increases the risk
- Definite risk factors are unknown



Type II Diabetes

- Most common form of diabetes
- Body does not use insulin properly (insulin resistance)³
- Pancreas struggles to make enough insulin to keep blood glucose levels normal
- When glucose builds up in the blood instead of entering the cells, it can cause problems
- There is no cure

Risk Factors for Type II Diabetes

Don't ignore these risk factors. If you think you may be at risk for developing type II diabetes, complete the CANRISK Questionnaire⁴

Family medical history

Ethnicity

Having given birth to a baby heavier than 9 pounds

Having high blood pressure and/or high cholesterol

Being overweight

Having being diagnosed with POS

Having being diagnosed with obstructive sleep apnea



Controllable Risk Factors

Smoking

High blood pressure

Unhealthy diet

Being overweight

Lack of exercise



Treatment – Type II Diabetes

Patient education

Lifestyle changes

- Eating a healthy diet
- Exercising to maintain weight
- Stress reduction

Oral medications

Managing Diabetes



Managing Diabetes – Goal Setting

- Goal setting will help individuals living with diabetes to stay on track with regards to their routines



Managing Diabetes – Blood Glucose Monitoring

- Monitoring your blood sugar (glucose) levels is the biggest key to diabetes management

Target ranges as follows:

- Fasting – 4.0 to 5.7 mmol/L
- Non Fasting – 5.0 to 8.0 mmol/L (Up to 10.0 mmol/L is moderate control)



Managing Diabetes – Exercise Benefits

- Once you get moving, you will start to feel better and improve your overall health



Note: If you are planning to increase the intensity of your current exercise routine, ensure to first discuss this with your family doctor.

Managing Diabetes – Heart Health

- Diabetes increases your chances of experiencing coronary heart disease, heart attack and stroke⁶



Managing Diabetes – Diabetes & Shift Work

- Shift work in the past was a barrier for individuals using insulin
- Now, people living with diabetes have greater flexibility and control with regards to diabetes management



Managing Diabetes – Caring for Older Family Members

- Caring for older people who are living with diabetes requires special considerations



Managing Diabetes – Daily Foot Care

- Foot problems are very common in people with diabetes and can lead to serious complications



Gestational Diabetes

- Temporary condition
- Occurs during pregnancy
- Affects 2%-4% of all pregnancies⁵
- Mother and child at increased risk of developing type II diabetes



Risk Factors for Gestational Diabetes

35 years or older

Being from a high risk ethnicity

Being overweight

Giving birth to a baby previously that weighed more than 9 pounds

Having been diagnosed with prediabetes or gestational diabetes in a previous pregnancy



Managing Gestational Diabetes

- Work closely with your health-care team to keep blood glucose levels within the target range
- Achieve a normal pregnancy weight gain
- Be physically active
- Choose a healthy diet
- Check your blood glucose at home
- Take insulin, if needed

Summary

- Prevention for type II diabetes
- Get tested for diabetes every 3 years (adults over 40)
- See your doctor if you have any signs or symptoms for diabetes
- CANRisk



Questions?



References

1. *"What is Diabetes?"* Diabetes Research Institute Foundation, 2016.
2. *"Diabetes Statistics in Canada"*. Canadian Diabetes Association, 2017.
3. *"Facts About Type 2"*. American Diabetes Association, 2015.
4. *"Are You At Risk?"* Canadian Diabetes Association, 2017.
5. *"Diabetes Fact Sheet"*. Canadian Diabetes Association, 2017.
6. *"Managing Diabetes"*. Canadian Diabetes Associations, 2017.
7. *"Diabetes Cases could double in developing countries in the next 30 years"* World Health Organization, 2003.