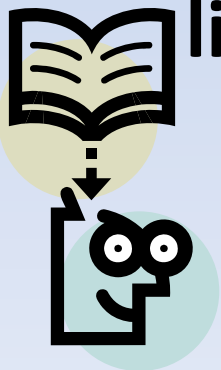
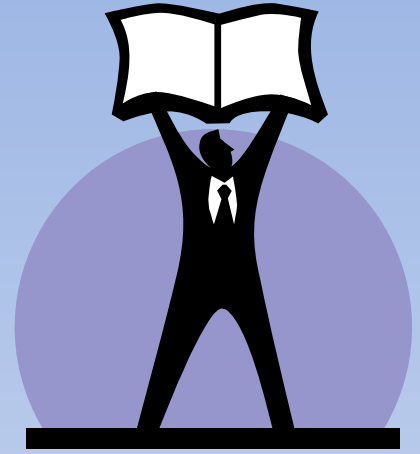


# LIVING WITH DIABETES



# Objectives

- Review the topic of diabetes.
- Describe the most common problems associated with diabetes.
- Explore ways you can help your loved one live with diabetes at home.





## (DYE-A-BEET-EZE)

- There are 2 types of diabetes: type 1 and type 2.
- Today we will focus on **type 2** because it is by far the most common type.





# What's in a name?

People have many ways of referring to type 2 diabetes...

*"Adult onset diabetes"*

*"Sweet blood"*

*"Sugar diabetes"*

*"Non insulin-dependant diabetes"*

*...and the list goes on.*

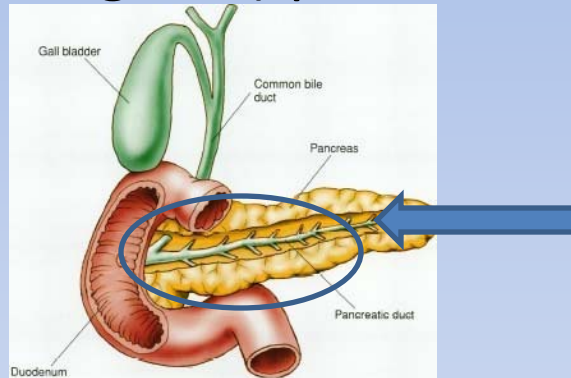
However to avoid confusion...the proper way to name it is:

**"TYPE 2 DIABETES" or "DIABETES MELLITUS"**

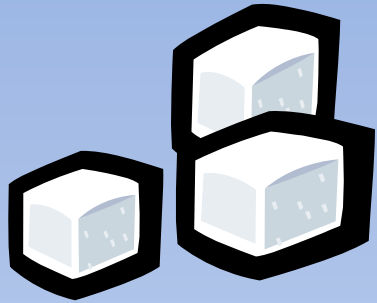
# What is it?

Lets start with some definitions:

- **Pancreas:** an organ (and gland) placed behind the stomach.



- **Insulin:** hormone that is secreted by the pancreas to help regulate the sugar level in the blood.
- **Glucose:** sugar
- **Hyperglycemia:** high blood sugar.
- **Hypoglycemia:** low blood sugar



# Diabetes Mellitus

- **What is it?** It happens when insulin levels are not high enough or not working well enough to keep the blood sugar at a normal level.
- This causes the sugar levels to rise (= hyperglycemia)
- When someone has hyperglycemia over a long period of time, it is called diabetes.



# How do they diagnose diabetes?

- Blood sugar levels are tested using a **glucometer**.
- A glucometer needs 3 parts to work: the needle, the strip of paper and the machine itself.



- Blood sugar levels can be tested at different times during the day. If they are higher than normal on several occasions, the diagnosis of diabetes will be given by a doctor.

## An Interesting Fact

- 50% of people with diabetes don't even know they have it.



# FACT OR FICTION?

*“EATING TOO MUCH SUGAR  
LEADS TO DIABETES”*



FICTION!!!

- This statement is false! A diet high in sugar will not *necessarily* lead to diabetes.
- However...a diet high in sugar is a diet high in calories. A high calorie intake causes weight gain and possibly obesity.



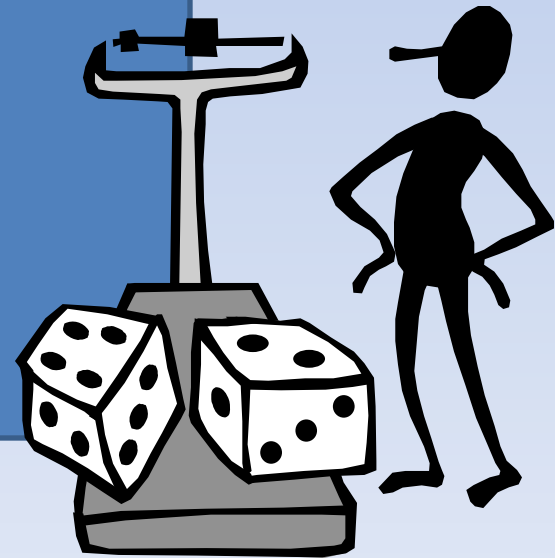
- Obesity is a major risk factor for Type 2 Diabetes.

# What causes diabetes?

- There are many risk factors that can lead to diabetes. Type 2 diabetes is caused by genetics and lifestyle factors.

Here are some examples:

- Genes
- Obesity
- Age
- Smoking
- High calorie diet



# What can cause blood sugar to go up?

- Many things can lead to **hyperglycemia**:

→ Stress

→ Nutrition (what we eat)

→ Infections

→ Certain medications



# What does diabetes feel like?

- People with diabetes often have the following signs & symptoms:

→ Increased **appetite**

→ Increased **thirst**

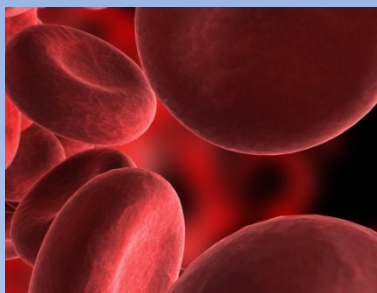
→ Need to **urinate** often

→ Changes in **vision** (blurry vision)

→ Frequent **infections**



...**some people feel normal even though their blood sugar levels are high.**



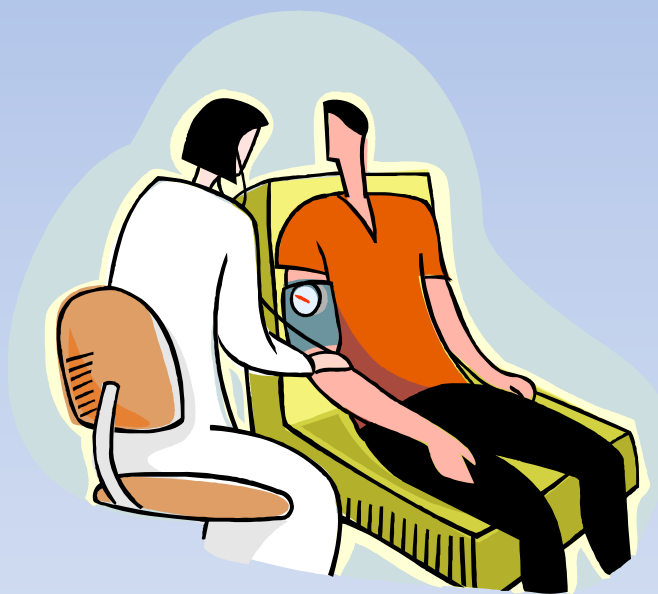
# Complications of diabetes

Even if you feel normal, if your blood sugar levels are not well controlled, here are some complications that can occur:

- Weight loss, heart disease, eye problems, kidney problems, nerve damage and erectile dysfunction.



# I have been diagnosed with diabetes...



## Now what?

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	Follow the healthy eating plan that you and your doctor or dietitian have worked out.
	Be active a total of 30 minutes most days. Ask your doctor what activities are best for you.
	Take your medicines as directed.
	Check your blood glucose every day. Each time you check your blood glucose, write the number in your record book.
	Check your feet every day for cuts, blisters, sores, swelling, redness, or sore toenails.
	Brush and floss your teeth every day.
	Control your blood pressure and cholesterol.
	Don't smoke.
	Manage stress levels.
	Have regular visits with your doctor and other health care providers. Consult if needed.



## Places to go...people to see...

- Because diabetes is a complex illness affecting many organs, you might come into contact with the following specialists.
- → **Ophthalmologist:** eye doctor
- → **Nephrologist:** kidney doctor
- → **Cardiologist:** heart doctor
- → **Endocrinologist:** hormone doctor
- → **Neurologist:** nervous system doctor
- → **Infectiologist:** infection doctor

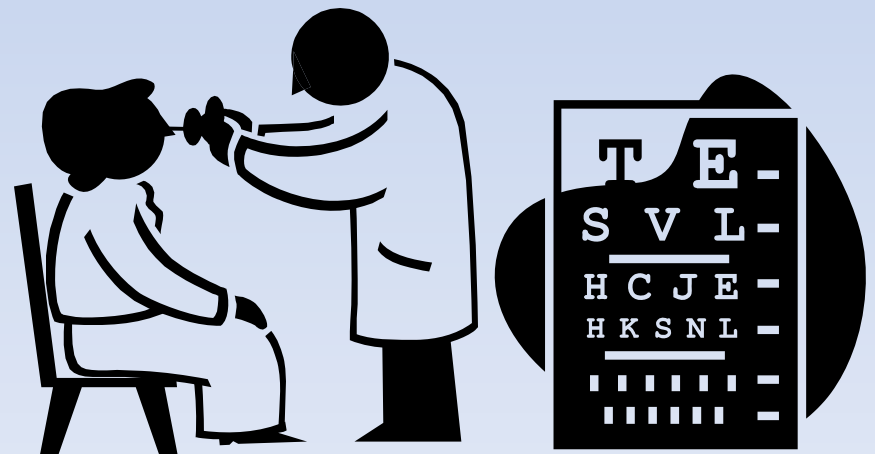




## Why all these specialists?

- Diabetes can affect different organs depending on the person.
- Some complications can be prevented. Having regular visits with certain specialists can help reduce the risk of some of these complications.

- **A yearly appointment with an ophthalmologist is a must!!!**



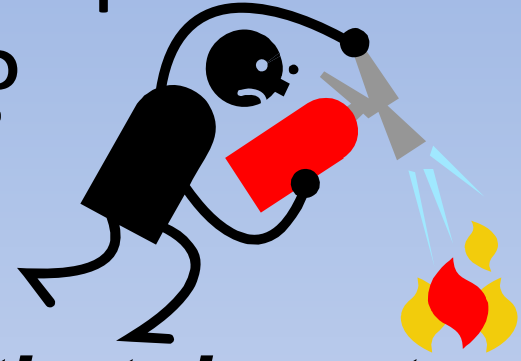
# **“TARGET RANGE EACH DAY KEEPS THE DOCTOR AWAY!”**

Keeping a tight control of your blood sugar levels and staying within your target blood sugar range will save you many complications down the line!



A poor control causes sugar levels to remain high. Most complications are due to high blood sugar levels over a long period of time. By keeping blood sugar levels within the normal limits, you can prevent or delay these complications.

What else can be done to prevent complications?



*Many things can be done that do not involve pills, insulin, exercise or diet...*

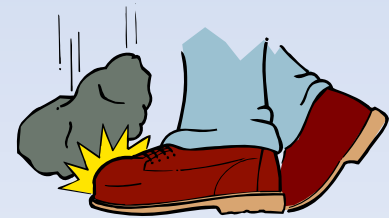
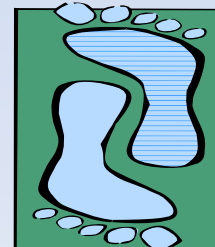
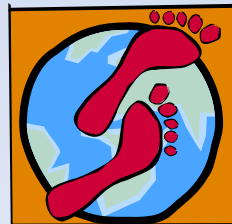
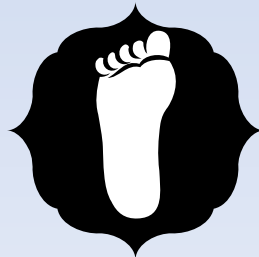
**TOP 3 PROBLEM  
PREVENTORS**

## TOP 3 PROBLEM PREVENTORS

### #1: Do frequent “foot checks”.

#### Why?

People with diabetes often have less feeling in their feet because of nerve damage (a complication of high blood sugar). Because of this, someone with diabetes could be hurt without knowing it. They also take a longer time to heal, so checking the feet often will ensure that sores do not go untreated or become infected.



## TOP 3 PROBLEM PREVENTORS

### #2: Visit your dentist regularly

#### Why?

The mouth is an area with lots of germs. The high blood sugar in people with diabetes helps germs (or bacteria) grow. This makes it easier for people with diabetes to get infections in the mouth. Caring for your teeth and gums (brushing, flossing daily) and regular visits to your dentist can help prevent complications and infections.



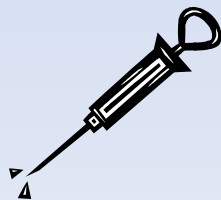
# TOP 3 PROBLEM PREVENTORS

## #3: Get vaccinated

### Why?

- ❖ High blood sugar levels in people with diabetes causes a change in the immune system. The immune system is the body's defense against infections.
- ❖ People with diabetes have a higher risk of getting infections. Vaccines (or immunizations) can help prevent serious illnesses.
- ❖ The most important ones to get are:

→ **Influenza, Pneumococcal & Tetanus/Diphtheria.**



Another way to care for diabetes is to learn the signs of low blood sugar



## Low blood sugar = Hypoglycemia Signs & Symptoms

1. Sweating
2. Trembling
3. Headache
4. Hunger
5. Anxiety
6. Difficulty walking
7. Weakness
8. Difficulty seeing clearly
9. Bizarre behavior or personality changes
10. Confusion
11. Unconsciousness or seizure





# How to treat low blood sugar

## Step 1:

- If possible, confirm blood sugar level by measuring it.  
**(Hypoglycemia is anything under 3.3 mol/L)**

## Step 2:

- **If not able to swallow, call 911.**
- If able to swallow, take 20g of a quick-sugar food. Take ONE of the following examples:
  - 250 ml (1 cup) of juice OR regular soda (not diet)
  - 20 ml (3 small packets) honey

# How to treat low blood sugar

## **Step 3:**

- Re-take sugar level 15 minutes later, if still low, repeat step 2.

**Step 4a:** If symptoms still present, call 911.

**Step 4b:** if feeling better and next meal is more than one hour away, have a snack with protein (ex: 6 crackers & cheese or peanut butter).

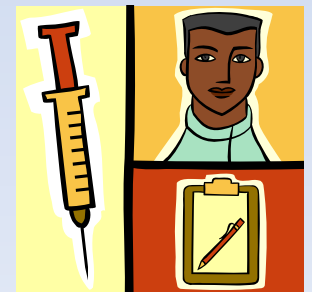
# How is diabetes treated?



- Depending on how severe the diabetes is, either oral medications (*antihyperglycemic* drugs), insulin (which is injected) or both can be given.



- Insulin is prescribed when oral medication is not strong enough to keep the sugar levels down.



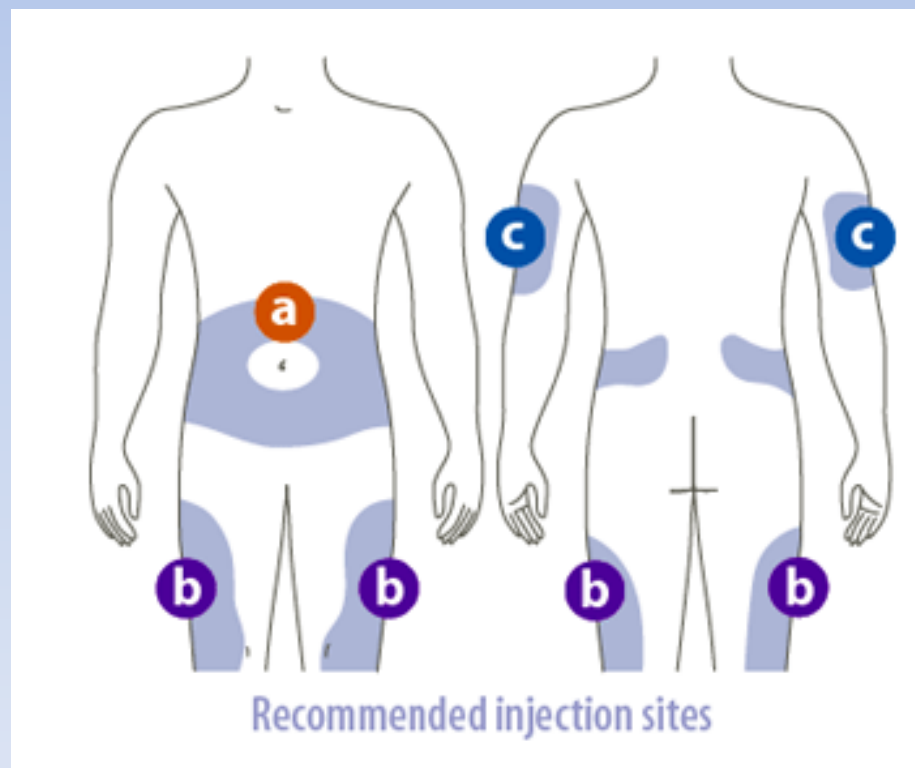


## Insulin Tips...

Your health care provider will give you details on how to prepare and inject your specific dose of insulin. Here are some general tips to remember...

The best places to inject the insulin are:

- upper arm
- front and side of the thighs
- abdomen



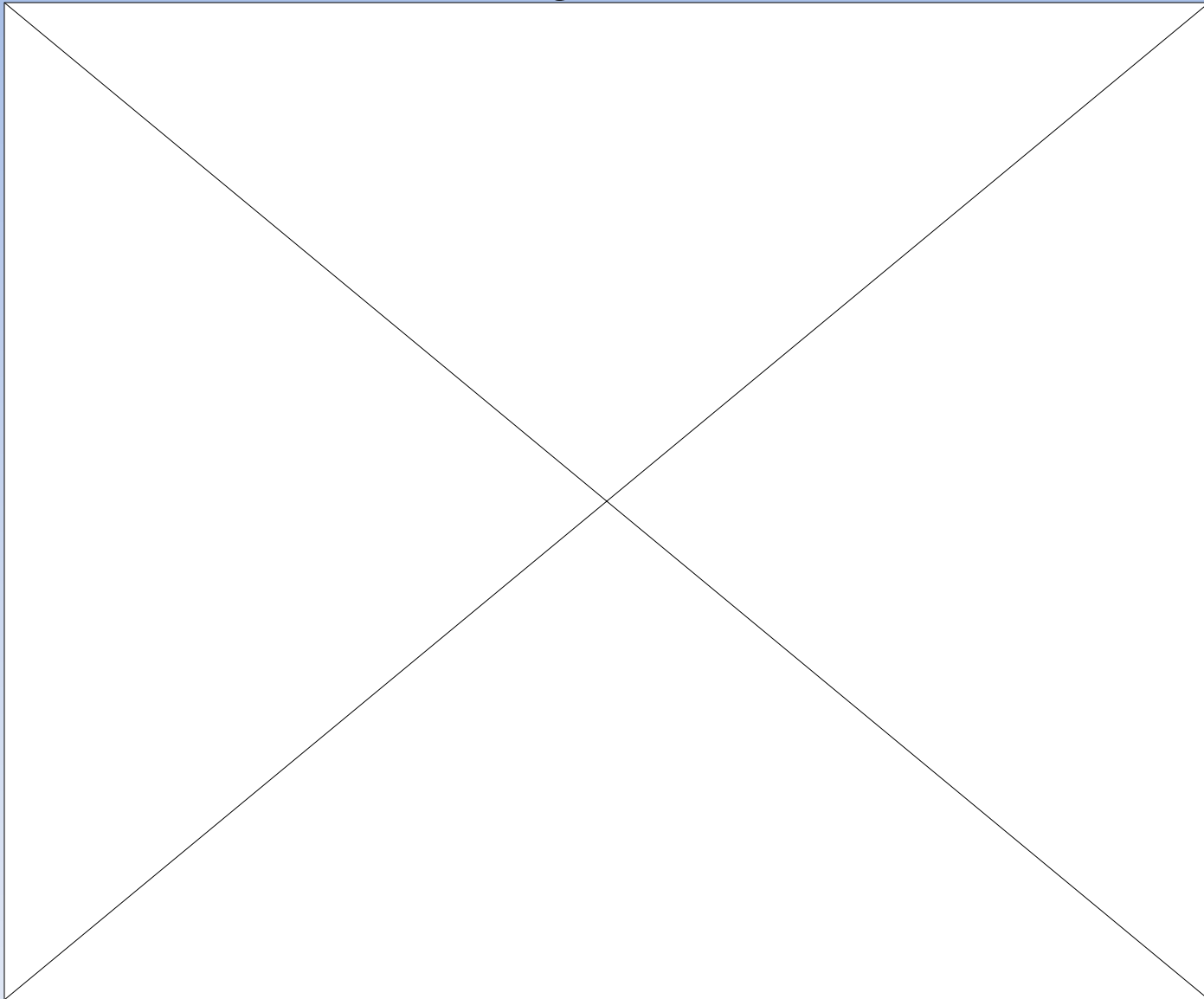


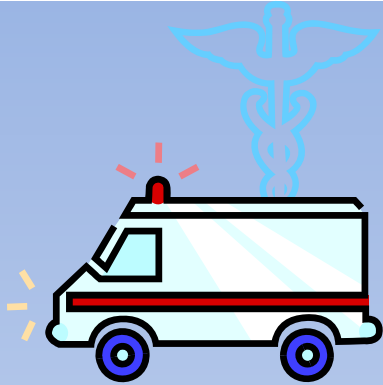
# Insulin Tips...

Your health care provider will give you details on how to prepare and inject your specific dose of insulin. Here are some general tips to remember...

- ✓ Don't forget to alternate sites.
- ✓ Wash your hands before injection.
- ✓ Disinfect the vial of medication with an alcohol swab before drawing it up into the syringe.
- ✓ Remove air bubbles from the syringe by flicking it with your finger.
- ✓ Disinfect skin with an alcohol swab and wait for it to dry before injecting.
- ✓ **If you inject too much insulin...get help.** Follow instructions for "How to treat low blood sugar" ( go back 2 slides).

# How to inject insulin...





# GET HELP!

## When to ask for help?



- If you are not feeling well or if your blood sugar is higher or lower than usual.
- If you have given yourself too much medication.
- If you are feeling any of the symptoms mentioned earlier (sweating, trembling, difficulty walking, weakness, blurry vision, confusion, etc.)

# Great Websites for Additional Information

- The Center for Literacy: Diabetes  
<http://www.learningaboutdiabetes.org/#>
- The Canadian Diabetes Association.  
<http://www.diabetes.ca/>
- National Diabetes Information Clearinghouse.  
<http://diabetes.niddk.nih.gov/>