

# Type 2 Diabetes

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## DIABETES **"YOU GOT THIS:"** LEARNING OBJECTIVES

1. What is Diabetes?
2. Controlling Diabetes- **SEET**
3. Preventing Complications
4. Managing Diabetes with your healthcare team.

**GOAL:** Control Diabetes and prevent Complication.



Diabetes develops when 1 of 2 things happens:

- The pancreas does not make any or enough insulin
- The body does not use insulin the right way

Each of these things can cause too much sugar to build up in the blood. Over time, high blood sugar levels can cause serious health problems. But there are many things you can do to manage your blood sugar and live well.



### Key words

#### Glucose

A sugar in the blood that is the main source of energy for the body's cells.

#### Insulin

A hormone that lowers the amount of glucose in the blood.

#### Pancreas

An organ behind the stomach that makes enzymes to help digest food and secretes the hormone insulin.

## The types of diabetes

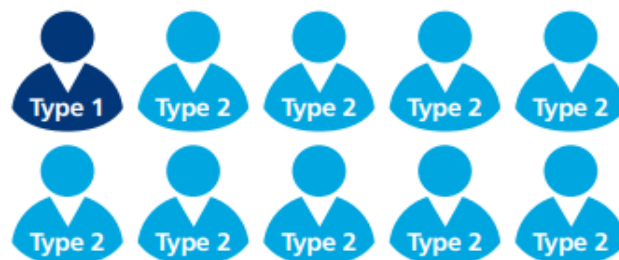
### Type 1 diabetes

In type 1 diabetes, the body makes little or no insulin. People with type 1 diabetes must take insulin every day. This type of diabetes usually first appears in children and young adults, but it may develop in older adults as well.

### Type 2 diabetes

In type 2 diabetes, the body prevents the insulin it makes from working the right way. Your body may make some insulin, but not enough. This type of diabetes usually happens in people who are older, or in people who are overweight and not physically active.

**About 9 out of 10 people with diabetes have type 2 diabetes**



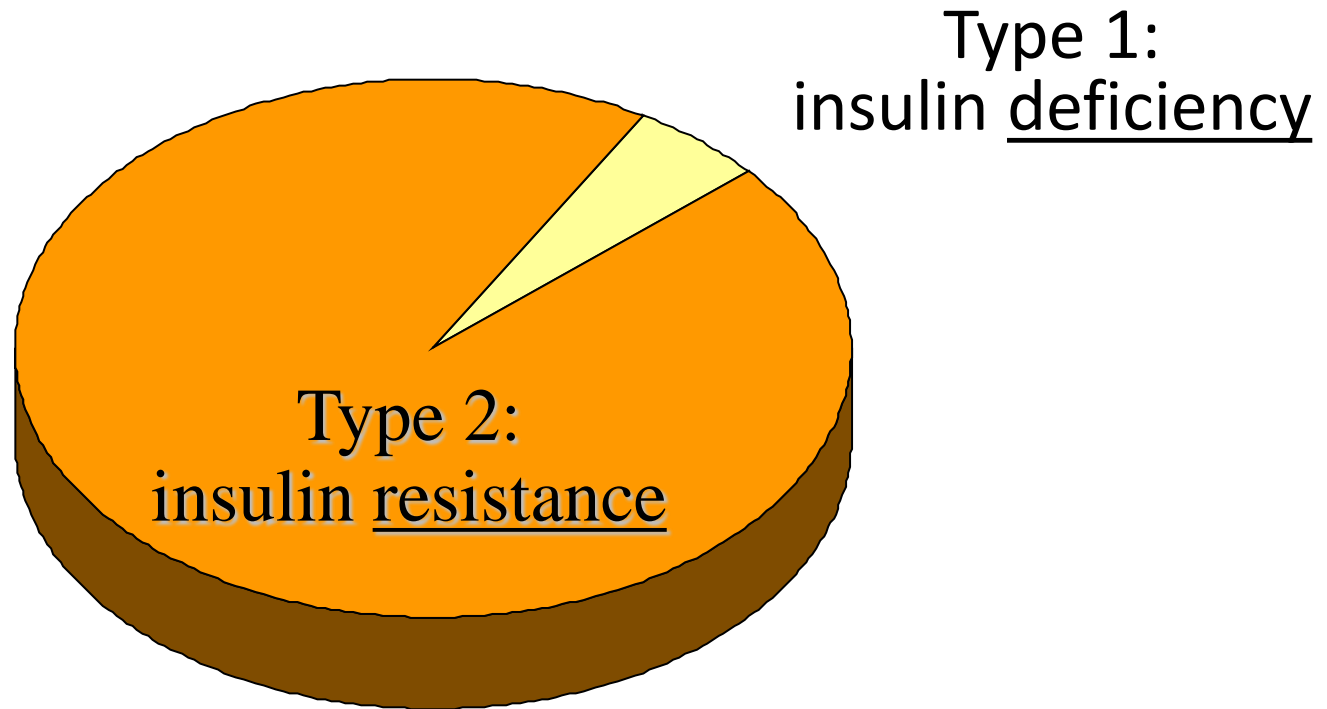
Visit [Cornerstones4Care.com](https://www.cornerstones4care.com) to learn more about the types of diabetes.

# Prevalence of Diabetes



- 34.2 millions of Americans have diabetes
- 88 millions have pre-diabetes

# Types of Diabetes





## Type 2 diabetes

### Risk factors for type 2 diabetes

No one knows exactly what causes diabetes. But scientists are working hard to find out what's behind it. We now know that having certain risk factors for type 2 diabetes can increase your chance of developing it.

#### Risk factors that cannot be changed

You are more likely to develop type 2 diabetes if you:

- Are 45 years of age or older
- Have a parent, brother, or sister with type 2 diabetes
- Belong to a high-risk ethnic group, such as African American, Latino, Native American, Asian American, or Pacific Islander
- Have a history of heart disease
- Had diabetes during pregnancy (*gestational diabetes*)
- Are a woman with polycystic ovary syndrome

#### Risk factors that can be managed

You are at a higher risk if you:

- Are overweight or obese
- Are not physically active
- Have high blood pressure
- Have low levels of HDL "good" cholesterol
- Have high levels of fats in your blood

### Know the symptoms of diabetes

Diabetes symptoms vary from person to person. Some people have no symptoms at all. Common symptoms include:



Urinating often



Blurry vision



Feeling very thirsty



Cuts or bruises that are slow to heal



Feeling very hungry



Tingling, pain, or numbness in the hands or feet



Feeling very tired



Visit [Cornerstones4Care.com](https://www.cornerstones4care.com) to learn more about risk factors and symptoms of type 2 diabetes.

**Diabetes develops when glucose can't enter the body's cells to be used as fuel. This happens because either:**

**In the case of Type 1 diabetes, there is no key (insulin) to unlock the door to the cells**



**Or, in the case of Type 2 diabetes, the key (insulin) is unable to unlock the door properly**

**and/or**

**the key (insulin) is there but the lock doesn't work properly**



**A1c:**

The A1c test reads the average of your blood sugar levels during the last 3 months.



Controlling your blood sugar helps you feel better, avoid health complications, and can even save your life!

**Blood Sugar Levels**

**345**  
**310**  
**275**  
**240**  
**205**  
**170**  
**150**  
**135**  
**100**  
**65**

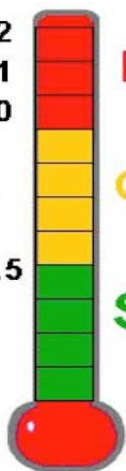
**A1c**

**12**  
**11**  
**10**  
**9**  
**8**  
**7**  
**6.5**  
**6**  
**5**  
**4**

**Danger!**

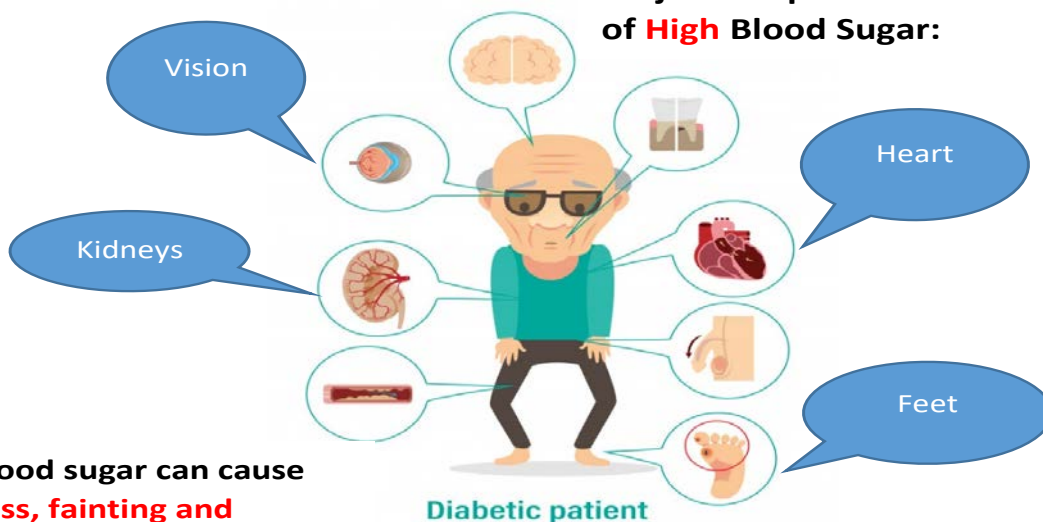
**Caution!**

**Success!**



**Low blood sugar can cause dizziness, fainting and convulsions!**

**Major Complications of High Blood Sugar:**



# Diabetes can be Controlled and Treated.(SEET)

- **Self-monitor**-Check blood sugar often-keep diary of results. Know your numbers. Keep scheduled appointments.
- **EAT** healthy meals more fruit, vegetables, grain, and lean meats, avoid sweet drinks, limit pastas and breads. Eat Less Sugar and fats. *Weight loss if necessary.*
- **Exercise** plan- 30 minutes most days. Discuss with provider before starting.
- **Treatment- healthy diet, medication(insulin,pills)** if prescribed-do not skip or change dose unless advised by doctor or nurse.

**Please discuss these goals with your healthcare team before starting.**



# SELF MONITOR

- Testing your blood sugars will tell you if it's too low or too high so you can treat the problem.
- Ask you doctor or nurse which range is normal for you. (or what should be your recommended blood glucose range)
- *Ask for log to keep track of results to take with you to your doctor's visit, always write date and time tested (before or after meal)*
- Continue to check sugar even when you're sick.
- Result of 80-130 norm before eating.

# Low blood sugar (Hypoglycemia)

## Causes

You might get low blood sugar (also called hypoglycemia) if you:

- Take certain medicines and eat too few carbohydrates
- Skip or delay meals
- Take too much insulin or diabetes pills (ask your diabetes care team if this applies to you)
- Are more active than usual
- Are sick
- Drink alcohol without eating enough food

## Signs and Symptoms

Here's what may happen when your blood sugar is low:



Or you may have no symptoms at all.

If low blood sugar is not treated, it can become severe and cause you to pass out.  
If low blood sugar is a problem for you, talk to your doctor or diabetes care team.

# High blood sugar (Hyperglycemia)

## Causes

High blood sugar (also called hyperglycemia) is when there is too much sugar in your blood. Over time, it can cause serious health problems.

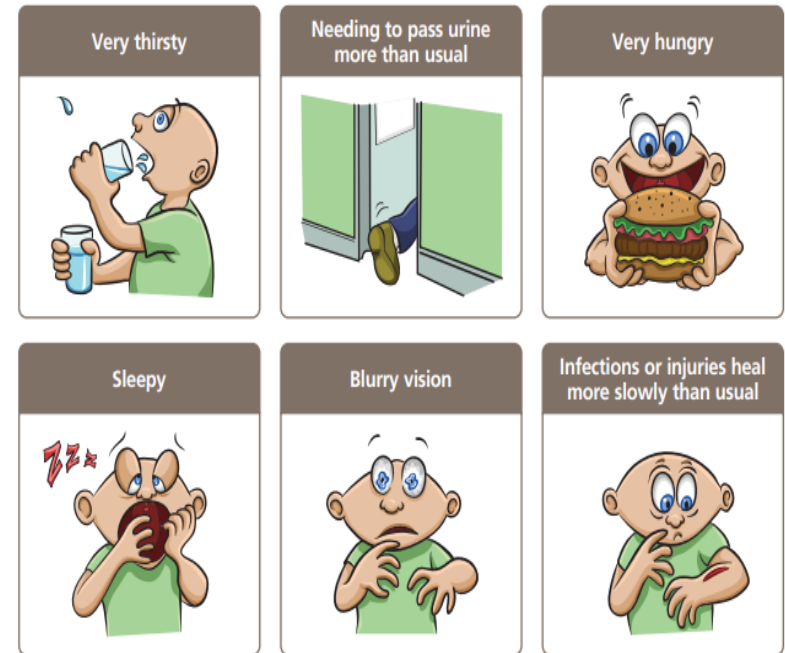
High blood sugar can happen if you:

- Skip a dose of insulin or diabetes pills
- Eat more than usual
- Are less active than usual
- Are under stress or sick

High blood sugar can also happen as your diabetes changes over time.

## Signs and Symptoms

Here's what may happen when your blood sugar is high:



Or you may have no symptoms at all.

## E=EAT HEALTHY

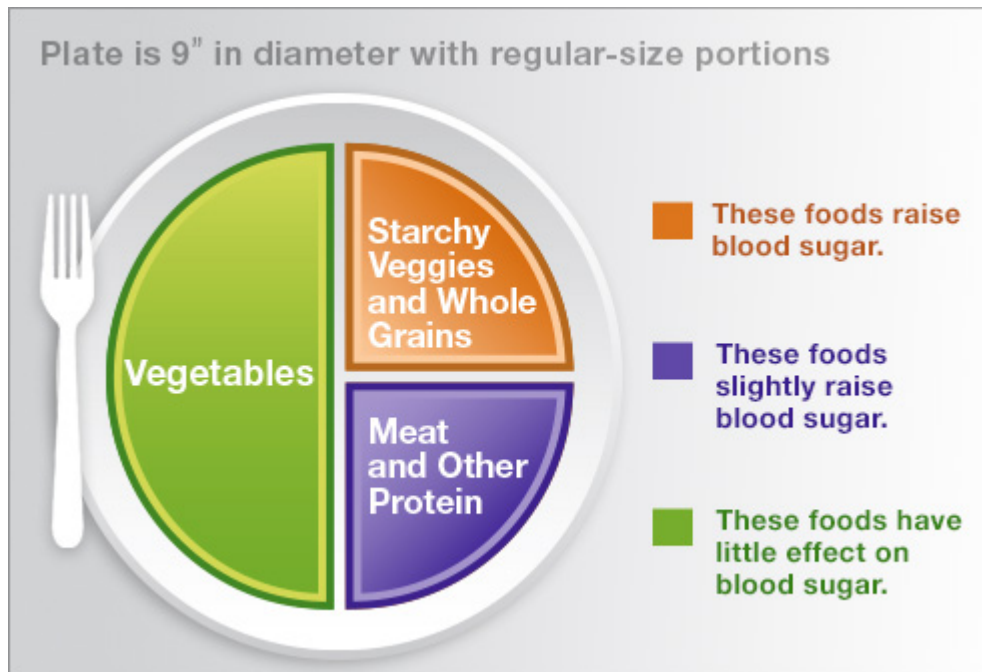
Plan your meals.

Add salt-free spices to make your food tasty.

Limit double portions or second helpings.



Figure 1: The original healthy diabetes plate



Cut back on sugars, try natural flavors like cinnamon, citrus, mint or nutmeg.

Swap sugar-sweetened beverages for plain or sparkling water flavor with mint, citrus, cucumber or splash of 100% fruit juice.

Diet sodas and artificial sweeteners, will not affect blood sugar.



A typical healthy meal plan includes:

**Complex carbohydrates**, such as whole-grain bread, oats, and brown or wild rice



**Fiber**, which is found in beans, whole grains, fruits, and vegetables



**Lean protein**, such as chicken (without skin), tofu, fish, and eggs



**Non-starchy vegetables**, such as broccoli, carrots, and leafy greens



**Low-fat dairy products**, such as milk, yogurt, and calcium fortified plant-based milk



**Heart-healthy fats**, such as olive or canola oil, nuts, and seeds



## Carbohydrates and your blood sugar

There are 3 main types of carbohydrates (carbs) in the foods you eat. They are sugar, starch, and fiber. Each type of carb affects your blood sugar in a different way.

**Sugary foods and drinks**, such as desserts, fruit juices, and soda pop. They raise your blood sugar very quickly after you eat them. It's best to eat fewer high-sugar foods.



**Starchy foods**, such as bread, pasta, potatoes, rice, and corn. They do not raise blood sugar levels as fast as sugary carbs do. Skip the foods made with processed white flour and choose whole grains for more nutrients.



**Fiber** is found in plant foods, such as vegetables, fruits, nuts, seeds, beans, and whole grains. When you eat fiber-rich foods, your blood sugar levels rise slowly. Because your body cannot digest fiber, the fiber slows down digestion. Eating fiber can help you manage your blood sugar and help you feel full.



Visit [Cornerstones4Care.com](https://www.cornerstones4care.com) to learn more about food and how it affects your body and blood sugar.

## Three steps to being more active

### Step 1: Talk with your doctor before you start. O

Discuss the kinds of activity that are best for you.

### Step 2: Choose an activity.

Choose activities that you enjoy. Just about anything that gets you moving is good. You might want to:

- Walk or jog
- Take a hike or ride a bike
- Swim or play a sport
- Dance or do yoga



### Step 3: Set your goals.

The American Diabetes Association (ADA) recommends being active for at least 2h hours (1 50 minutes) a week spread over 3 or more days a week. The ADA also recommend doing resistance exercise (exercise with weights or weight machines) 2 to 3 times per week, with a rest day in between.

Flexibility and balance exercises, such as yoga and tai chi, are recommended for older adults 2 to 3 times a week. This can help with range of motion, muscle strength, and balance.

Break up long periods of time sitting by getting up and moving around every 30 minutes.

You may not think you have the time in your schedule. See below for examples, and write in your own activity goals.

### Adding activity, try this

Exercise for 30 minutes, 5 days a week (1 50 minutes total).



Always talk with your doctor before starting or changing your physical activity.

### My activity goals

Goal:

Goal:



## Your medicine plan

You may have to take diabetes medicines to reach your blood sugar goals. It's important to know what each medicine is and how to take it. Be sure to take each medicine exactly as your doctor tells you to.

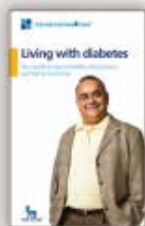
Your medicine plan will tell you:

- ✓ What type of diabetes medicines and other medicines to take
- ✓ How much to take
- ✓ When to take it

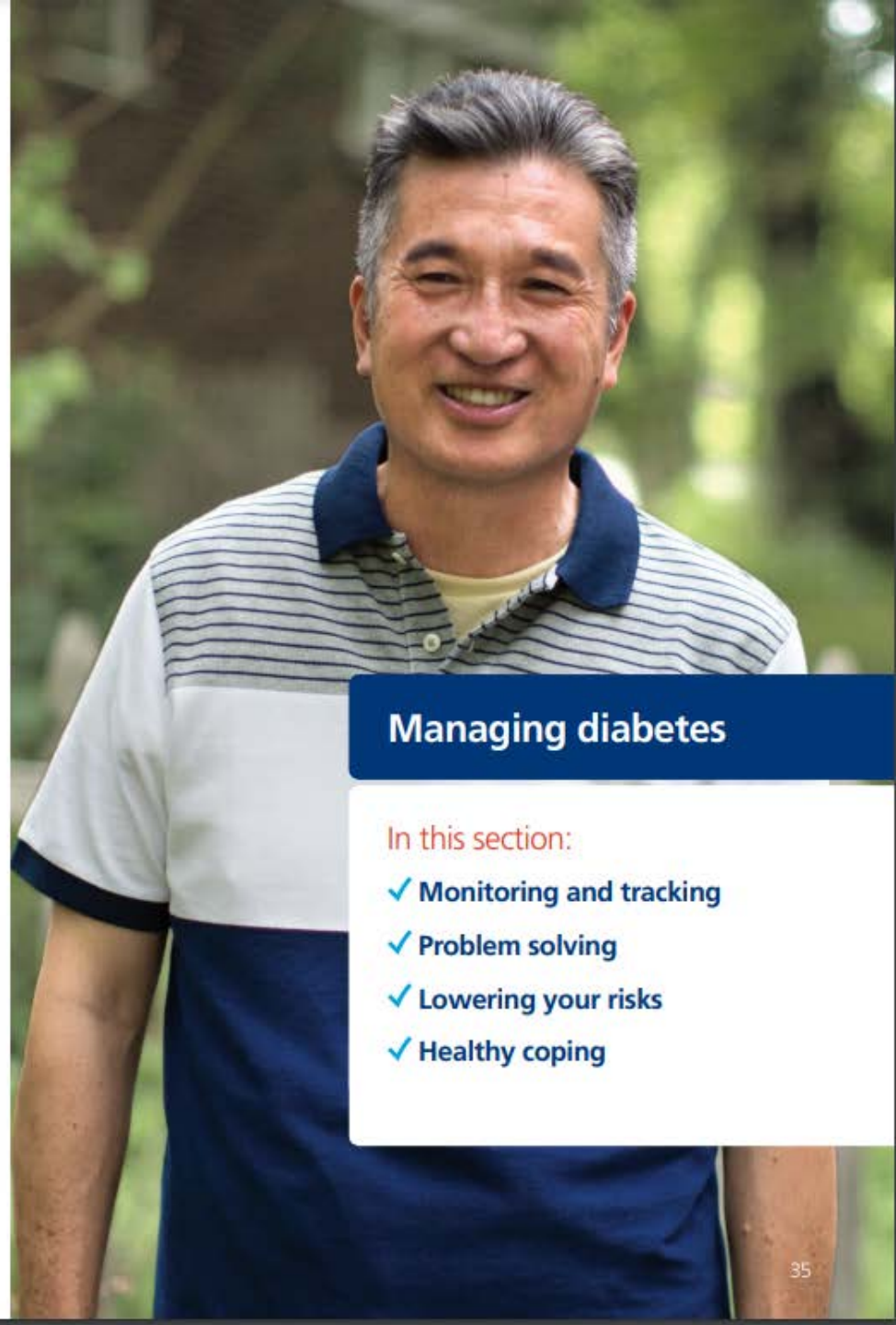
Your medicine plan will be based on many things, such as:

- ✓ Your blood sugar levels
- ✓ Your eating habits
- ✓ Other health conditions you have
- ✓ Your activity level
- ✓ Your daily schedule

Work closely with your diabetes care team to create a medicine plan that is easy to follow and right for you.



Ask your diabetes care team for the *Living with diabetes* booklet. It gives you more information on how to take steps to manage your diabetes by eating healthy, being active, and taking medicines.



## Managing diabetes

In this section:

- ✓ Monitoring and tracking
- ✓ Problem solving
- ✓ Lowering your risks
- ✓ Healthy coping

# Diabetes Complications

- Damage to heart and blood vessels-lead to heart attack, stroke and high blood pressure.
- Eyes-cause blindness.
- Kidneys-Dialysis
- Nerves-Can lead to amputations-loss of feeling in feet, arms or hands. Problems with having sex.
- Teeth and Gums-teeth can fall out or infections.

**To avoid complications keep you blood sugar level within normal range. Call and schedule appointment with doctor if having any problems with the above.**

## Managing your Diabetes

### **Every 3 Months:**

1. Regular office visit per PCP
2. Blood pressure check.
3. A1c Test.
4. Weight check.

### **Every 6 Months:**

1. Dental office visit.

### **Every Year:**

1. Flu Shot
2. Dilated eye exam.
3. Foot exam.
4. Hearing screen.
5. Kidney, liver, and cholesterol tests.



Make sure to record visit dates to help manage your diabetes.



# QUESTIONS??

- TAKE CHARGE OF *DIABETES-YOU GOT THIS*



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