

Diabetes Prevention & Management

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How can I prevent Type 2 diabetes?

- Lose 5-7% of your body weight
- Exercise a total of 150 minutes per week
- Follow a healthy diet (MyPlate method)



Prediabetes: Definition & Prevention

- Prediabetes means your blood glucose levels are higher than normal but aren't high enough to be called diabetes.
- It means you might get type 2 diabetes soon or down the road. You are also more likely to get heart disease or have a stroke.
- Prevented by diet, exercise, weight loss and/or medication
 - If you're overweight, 5-7% weight loss may lower your risk for diabetes
 - One way to be more active is to try to walk 30 minutes, 5 days per week

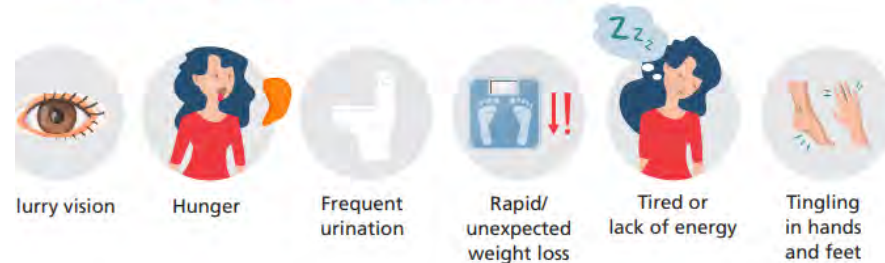
How is diabetes diagnosed?

Healthcare providers check for diabetes with simple blood tests like fasting blood glucose or the A1c test. The A1c shows your average blood glucose over the past 2-3 months. If your A1c is 6.5% or more and you have signs of high blood glucose, your doctor can confirm diabetes. Even if you don't have signs, a repeated A1c of 6.5% or higher can also confirm it.

Here's a table to help you understand normal and abnormal blood glucose results:

	A1C Test	Fasting Blood Glucose Test
Diabetes	6.5% or above	126 mg/dL or above
Prediabetes (at risk)	5.7 - 6.4%	100 - 125 mg/dL
Normal	5.7% or below	99 mg/dL or below

Signs and Symptoms of Diabetes



Type 1 Diabetes

Autoimmune disorder where the body's immune system destroys the cells that make insulin in the pancreas. This is often diagnosed when people are young but can occur at any age. People with this type of diabetes need insulin.

Type 2 Diabetes

When the body cannot make enough insulin or cannot use insulin in the right way. Type 2 diabetes is the most common form of diabetes and accounts for >90% of all diabetes cases. Some people with Type 2 diabetes are treated with insulin or oral medications. Many people with Type 2 diabetes can control their blood sugar with diet and exercise!

What happens in diabetes?

Your body is unable to make enough insulin and/or unable to use insulin correctly

- When you eat, the carbohydrates that you eat are broken down into glucose (sugar). Glucose travels through your blood to all of your body's cells. Your cells need glucose for energy.
- In response to increased sugar, beta cells in the pancreas release a hormone called insulin. Insulin is like a key that unlocks the doors of your cells so that sugar can get into the cells to be used as energy.
- When your body is not producing enough insulin or can't use insulin in the right way, you develop high blood glucose.

Risk Factors

Type 1 Diabetes

Type 1 diabetes is an **autoimmune disease**. An autoimmune disease means the body attacks its own cells by mistake. In type 1, the body makes little or no insulin so people with type 1 diabetes must take insulin every day. It can occur at any age.

Type 1 Diabetes Risk Factors

- Family history
- Genetics

Type 2 Diabetes

In Type 2 diabetes your body may make some insulin but it cannot use it the right way. Sometimes your body does not make insulin.

Type 2 Diabetes Risk Factors

- Age over 35
- Family members with diabetes/genetics
- Other health conditions:
Obesity, Polycystic Ovary Syndrome (PCOS),
Human Immunodeficiency Virus (HIV),
gestational diabetes,
cardiovascular disease, high blood pressure
- Less physically active
- High cholesterol level
- Smoking
- High-risk race/ethnicity:
African American, Latino, Native American,
Asian American, Pacific Islander

(ADA 2023 guidelines)

Monitoring Diabetes

Foot Exam	It is important to check your feet daily. Your healthcare provider should examine your feet for calluses, infections, sores and loss of feeling. You will be referred to a podiatrist (foot doctor) if there is a problem.	At every office visit with your healthcare provider
Dilated Eye Exam	Checking for damage to the blood vessels in the eyes that can cause glaucoma, cataracts or retinopathy over time.	At least once a year for most people
Dental Exam	Elevated glucose levels can cause tooth decay, cavities and gum disease.	See your dentist every 6 months for cleaning and exam



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Testing & A1C Chart

Before
Meals

80 - 130
mg/dL

1 - 2 Hours
after meals

Less than
180
mg/dL

Before
bedtime

100 - 140
mg/dL

A1C Levels	Average Blood Sugar
12%	298 mg/dL
11%	269 mg/dL
10%	240 mg/dL
9%	212 mg/dL
8%	183 mg/dL
7%	154 mg/dL
6%	126 mg/dL

The American Diabetes Association recommends an A1C of less than 7%.

Testing: METER

How to use a blood glucose meter



Supplies

- Alcohol prep pad or access to a sink with soap and warm water
- Lancet (poking) device and new lancet needle
- Test strip
- Glucose meter

Instructions

- Gather your supplies.
- Wash your hands with soap and water, and then dry them. You can also use an alcohol wipe to clean just your fingertip.
- Place a test strip in the meter. The slot for the test strip may be at the top, bottom, or side of the meter.
- Put a new needle into the lancet (poking) device and gently poke the side of your fingertip to get a tiny drop of blood. Remember, use a new needle each time you poke a finger.
- Place the drop of blood on or at the side of the strip (depends on the brand of meter and strip).
- The meter will show a number on the screen. This is your glucose result.
- Record your result.

Every meter is a little bit different. Your meter will come with step-by-step instructions. You can go on the Internet and search for the manufacturer of your meter.

Talk to your insurance and diabetes care team to see which blood glucose meter and supplies are cheaper for you. To know how much you have to pay or what your insurance pays for a certain meter and supplies, give your insurance benefits department a call. They can explain the costs to you.

Testing: CGM

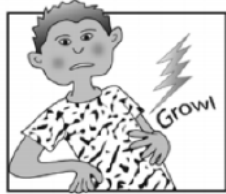
Continuous Glucose Monitoring (CGM)

A CGM is a device to help you monitor your blood glucose without having to prick your finger each time. The readings come from wearing a small sensor on your body (on your arm or abdomen). The sensor remotely connects to a handheld device that shows your glucose levels. The device has arrows to show if your levels are going up or down fast. It can make a noise to let you know if your glucose levels are very high or low. Some devices can also connect to smartphones, smartwatches, insulin pens, and pumps.

CGMs are a prescription item. Talk with your diabetes care team to see if a CGM is right for you.



Hypoglycemia: Rule of 15



Hungry



Shaky/weak/clammy



Blurred vision/
glassy eyes



Dizzy/headache



Sweaty/flushed/hot



Tired/drowsy



Mood/
behavior change



Inattentive/spacey



Slurred/
garbled speech

below
70
mg/dL

Don't wait!

Treat your blood glucose right away if under 70 mg/dL



Eat or drink 15 grams of carbohydrates.

Each of the following items has approximately 15 grams of carbohydrate:



4 glucose tablets



½ cup juice



1 tablespoon of honey



4 or 5 hard candies



Wait 15 minutes

Recheck finger stick glucose

If greater than
70
mg/dL

Have a complex carbohydrate snack or your next meal.

(Snack examples: peanut butter crackers, protein bar, fruit and cheese, half a lunch meat sandwich)

If less than
70
mg/dL

Repeat the treatment.

Wait 15 minutes and re-check blood glucose.

Hyperglycemia



Frequent urination
(bedwetting in children)



**Extreme thirst/
dry mouth**



Sweet, fruity breath



Tiredness/fatigue



Increased hunger



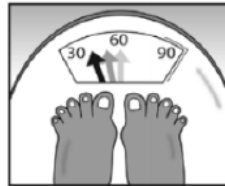
Blurred vision



Nausea/vomiting



Stomach pain/



Unusual weight loss

How to treat high glucose

Keep up with healthy meals and taking your diabetes medication as your provider prescribed. It's essential! But, there are a few things you can do:

1. **Stay Hydrated** • Drink more water or sugar-free sports drinks.
2. **Move Around a Bit** • Try light exercise; it can help lower your blood glucose.
3. **Check Your Blood Glucose** • Do it more often, like every 2-4 hours.
4. **Call Your Provider, if:**
 - Your blood glucose is consistently above 240 mg/dL.
 - You feel sick with a very high reading.
 - Your blood glucose won't go down, no matter what you try.

Remember, it's crucial to talk to your diabetes care provider about your plan for managing high glucose. They can help you figure out the best approach for you.

Sick Day Guidelines

When you are ill, your blood glucose levels can become higher. High blood glucose levels can be life-threatening, so it is important to be prepared.

Here are some rules to help manage your blood glucose when you are ill.

- Check your blood glucose while awake every 2-4 hours. If your blood glucose level is over 240mg/dL for more than a day, call your healthcare provider.
- Keep taking your insulin and/or diabetes pills. If you are unsure about taking your medications when sick, call your healthcare provider.
- If you are unable to eat your regular meals, try to have 15 to 30 grams of carbs every three to four hours and drink 1 cup of water or sugar free beverage every hour. Drinking fluids will prevent dehydration.

15  15 g

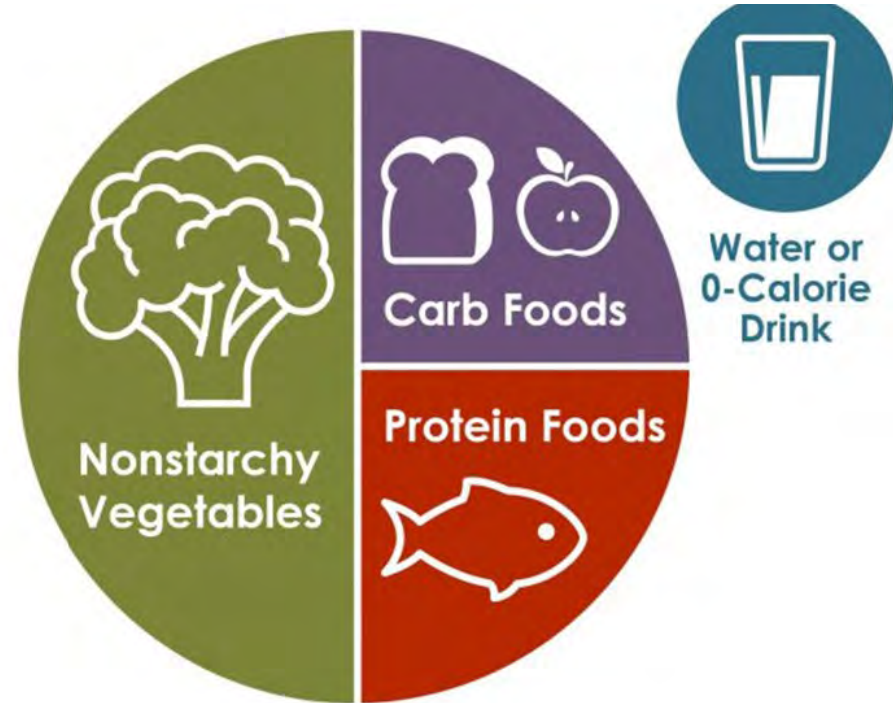
15 Foods and liquids that contain approximately 15 grams of carbohydrates

You could eat one or two items from this list every three to four hours if you are not able to eat regular food:

- ½ cup regular gelatin
- ½ cup regular granulated sugar
- 1 cup broth soup with noodles or rice
- ½ twin bar popsicle
- ¼ cup regular pudding
- ½ cup cooked cereal
- ½ cup ice cream
- 1 cup milk
- 6 saltine crackers
- ½ cup regular carbonated beverage (caffeine-free)
- 6 ounces plain yogurt
- 3 graham cracker squares
- ½ cup fruit juice
- ¼ cup sherbet
- Slice of bread/toast

Dietary Guidelines

- Eat 3 meals every day
- Always pair your carbs with a protein
- Avoid sweetened beverages
- Fill $\frac{1}{2}$ plate with non-starchy vegetables at each meal
- Eat your whole grains



NON-STARCHY VEGGIES

Asparagus, bean sprouts, broccoli, cabbage, cauliflower, eggplant, kale, mushroom, onion, radish, tomato, green beans, Brussel sprouts, carrots, celery, cucumber, okra, peppers, spinach, snap peas, salad greens



PROTEIN

Beef, chicken, eggs, cheese, fish, pork, lamb, deli meat, sausage, shellfish, veal

**Peanut butter, nuts, beans, lentils, hummus, peas, tofu, edamame, falafel*



CARBOHYDRATES

White potatoes, sweet potatoes, rice, pasta, corn, peas, beans, breads, fruit, crackers, chips, pretzels, popcorn, grits, oatmeal, quinoa, cereal, dairy



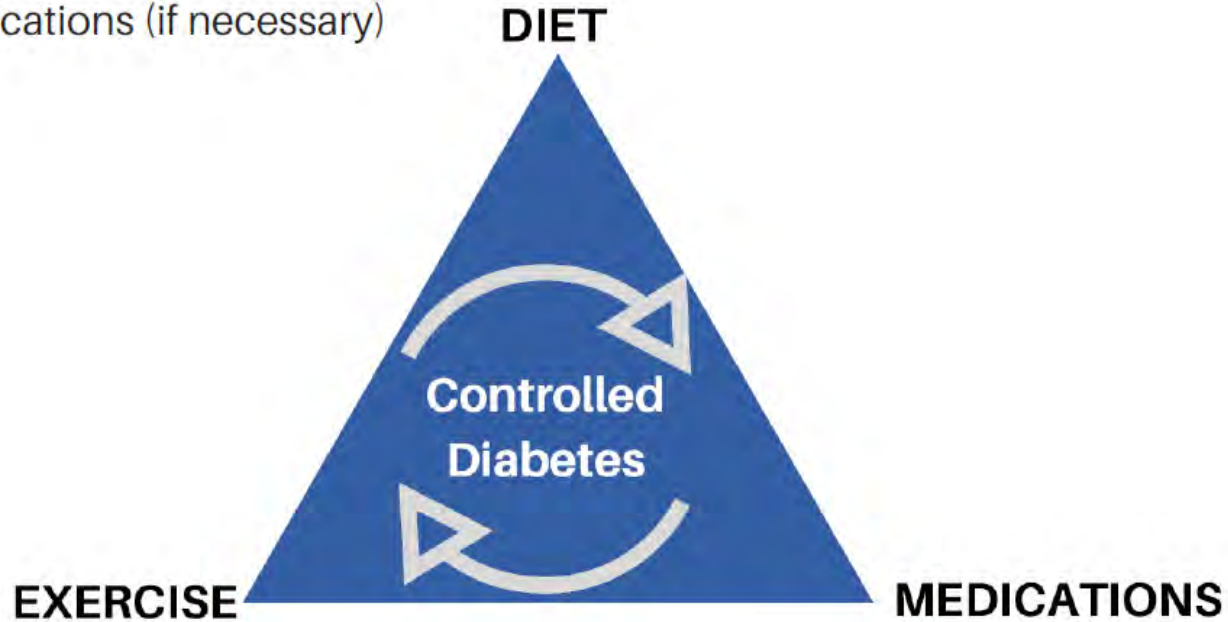
Exercise Guidelines

- Aim for 150 minutes per week of physical activity
- Cardio, weight training, or a mix of both
- Exercise makes your body **MORE** sensitive to insulin!
- Lowers blood pressure, stress, cholesterol, weight
- Increases energy, circulation, sleep health, heart health



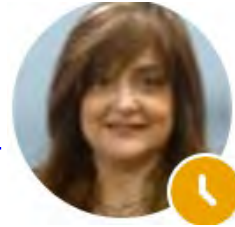
How do I keep my blood glucose in range?

- Following your meal plan
- Exercising regularly
- Medications (if necessary)



Questions or Comments?

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To receive your 100 Personify Health points, you will need to enter a voucher code into your Personify Health account.

Email Health Coach Bridget Evans at bevans@wellnessiq.net to request your voucher code.