

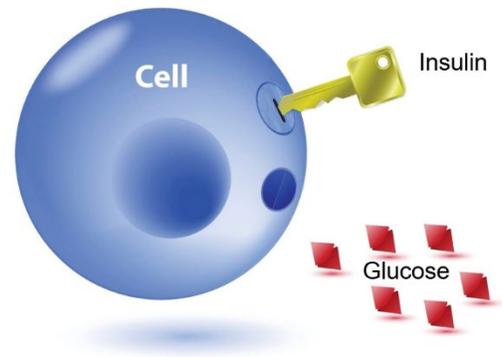
# What is Blood Glucose?

## What is blood glucose?

Glucose is a type of sugar that you get from the foods you eat, specifically carbohydrates (carbs). It's the main source of energy for the cells in the body. Blood glucose rises after eating, and returns to normal after 1 to 2 hours.

## How does the body process glucose?

- The body breaks down food into glucose and releases it into the bloodstream.
- The increase in blood glucose signals the pancreas to release insulin. Insulin is a hormone the pancreas makes to help transport glucose to the body's cells..
- The insulin is the key that allows the glucose to get into the cells so that it can be used for energy.
- However, if the body doesn't produce enough insulin or if the cells don't respond well to insulin, then the glucose cannot enter the cells.
- The glucose then remains in the blood. This causes the blood glucose level to rise above normal. Over time, having too much glucose in your blood can cause serious health problems like diabetes.



## How do I check my blood glucose?

Glucose is measured with a glucose meter and test strips. A small drop of blood is placed on a special test strip in the glucose meter, and the meter shows your blood glucose level.

## Understanding your blood glucose numbers:

For those who have not been told they have diabetes:

Fasting Glucose Level	Recommendation
Less than 100	Normal blood glucose
100-125	You may have pre-diabetes and you may be at risk for developing diabetes. See your primary care provider. Improvements to your diet could also help lower your blood sugar levels.
126-239	You may have diabetes. See your primary care provider. Improvements to your diet could also help lower your blood sugar levels.
240-299	You may have diabetes. See your primary care provider in the next 1-2 months. Improvements to your diet could also help lower your blood sugar levels.
300 or more	Contact your primary care provider immediately for an appointment within 7 days.

# What are Pre-Diabetes and Diabetes?

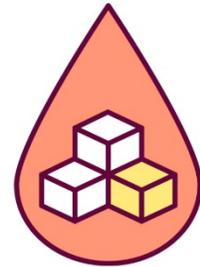
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## What is Pre-Diabetes?

- Pre-diabetes is a condition in which your blood sugar level is higher than normal, but not high enough to be diagnosed with diabetes.
- People with pre-diabetes are at a higher risk for developing type 2 diabetes.
- About 98 million adults in the U.S. have pre-diabetes – that’s more than 1 in 3 adults

## What is Diabetes?

- Diabetes is a disease that occurs when your blood glucose is too high.
- There are two main types of diabetes:
  - If you have **type 1 diabetes** your body makes little or no insulin. It is usually diagnosed in children and young adults.
  - If you have **type 2 diabetes**, the cells in your body don’t use insulin properly. It is the most common type of diabetes.
  - Gestational diabetes is a type of diabetes that develops during pregnancy. Most of the time, this type of diabetes goes away after the baby is born.
- Common symptoms of type 2 diabetes are:
  - Urinating often
  - Feeling very thirsty
  - Feeling very hungry—even though you are eating
  - Extreme fatigue
  - Blurry vision
  - Cuts/bruises that are slow to heal
  - Tingling, pain, or numbness in the hands/feet
- As of 2019, 37.3 million people - or 11.3% of the U.S. population - has diabetes.



## What are some complications from uncontrolled diabetes?

Diabetes can lead to serious health problems like heart, kidney and eye disease. However, many people with diabetes are able to prevent or delay the onset of complications with medications and a healthy lifestyle.

## How can I prevent or manage diabetes?

- Eat a healthy diet
  - Focus on healthier carbs: vegetables, fruits, whole grains, beans, lean proteins.
  - Limit sugary foods and drinks, refined carbs (white bread, flour tortillas), and highly processed foods
- Physical activity
- Staying at a healthy weight
- Take medications prescribed by your doctor as directed (for those with diabetes)

For more information on diabetes go to <https://diabetes.org/about-diabetes>.

## Are You at Risk for Prediabetes or Type 2 Diabetes?

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Check the risk factors you have. The more risk factors you check, the higher your risk for developing type 2 diabetes. Only your health care provider can determine if you have diabetes. On your next visit, find out for sure.

- I am 40 years of age or older
- I am overweight (especially if I have extra weight around the waist).
- I have a parent, brother, or sister with diabetes.
- My family background is Latino, African American, American Indian, Asian American, or Pacific Islander.
- I have had gestational diabetes, or I gave birth to at least one baby weighing 9 pounds or more.
- I smoke cigarettes
- I do very little physical activity. I exercise fewer than three times a week.



## How Much Sugar and How Many Calories Are in Your Favorite Drink?

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<b>Drink (12-ounce serving)</b>	<b>Grams of Sugar</b>	<b>Approximate Number of Teaspoons of Sugar</b>	<b>Calories</b>
Bottled Water	0 grams	0 teaspoons	0
Cola	41 grams	10 <sup>1</sup> / <sub>4</sub> teaspoons	150
Diet Cola	0 grams	0 teaspoons	0
Guava Nectar	48 grams	12 teaspoons	240
Mango Nectar	50 grams	12 <sup>1</sup> / <sub>2</sub> teaspoons	230
Horchata	33 grams	8 <sup>1</sup> / <sub>4</sub> teaspoons	210
Root Beer	46 grams	11 <sup>1</sup> / <sub>2</sub> teaspoons	170
Orange Soda	52 grams	13 teaspoons	210
Powdered Drink With Sugar	36 grams	9 teaspoons	145
Sugar-Free Powdered Drink	0 grams	0 teaspoons	0
Lemonade	25 grams	6 <sup>1</sup> / <sub>4</sub> teaspoons	105
Sugar-Free Lemonade	0 grams	0 teaspoons	0
Grape Juice	32 grams	8 teaspoons	150
Orange Juice	20 grams	5 teaspoons	105
Fruit Punch	46 grams	11 <sup>1</sup> / <sub>2</sub> teaspoons	195
Sports Drink	8.5 grams	2 teaspoons	75
Sweetened Iced Tea	33 grams	8 <sup>1</sup> / <sub>2</sub> teaspoons	120
Unsweetened Iced Tea	0 grams	0 teaspoons	0

# Read the Food Label for Sugar!

Food labels tell you what you need to know about choosing foods that are lower in calories and sugar. Here is a food label for 100 percent grape juice. The label provides lots of useful information.

**Amount Per Serving**  
The nutrient amounts provided on the label are for one serving. If you have more than one serving, you will get more calories and other nutrients. For example, if you drink two servings (2 cups) of grape juice, you will take in 300 calories and 64 grams of sugar.

**Calories and Sugar**  
Here are the amounts of calories and sugar in one serving.

## 100% Grape Juice

Nutrition Facts	
Serving Size 1 cup (8 fl oz)	
Servings Per Container 15	
Amount Per Serving	
<b>Calories</b> 150	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
<i>Trans Fat</i> 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 15mg	1%
<b>Potassium</b> 170mg	5%
<b>Total Carbohydrate</b> 37g	12%
Dietary Fiber 0g	0%
<b>Sugars</b> 32g	
<b>Protein</b> 0g	
Vitamin A 0%	Vitamin C 120%
Calcium 2%	Iron 2%

**Serving Size and Number of Servings**  
The serving size is 1 cup. There are eight servings in this container.

**Percent Daily Value**  
The Percent Daily Value helps you compare nutrient amounts in products. There is no Percent Daily Value for calories or sugar. Choose foods with the lowest amount of calories and sugar.

## The Choice Is Yours—Compare!

### Which one would you choose?

The unsweetened iced tea has fewer calories and no sugar. That makes the iced tea a better choice! Read food labels, and choose products to keep your heart strong.

Nutrition Facts	
<b>Calories</b> 150	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
<i>Trans Fat</i> 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 15mg	1%
<b>Potassium</b> 170mg	5%
<b>Total Carbohydrates</b> 37mg	12%
Dietary Fiber 0g	0%
Sugars 32g	

### 100% Grape Juice

One cup of grape juice has 150 calories and 32 grams of sugar.

Nutrition Facts	
<b>Calories</b> 5	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
<i>Trans Fat</i> 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Potassium</b> 0	0%
<b>Total Carbohydrates</b> 0mg	0%
Dietary Fiber 0g	
Sugars 0g	

### Unsweetened Iced Tea

One cup of unsweetened iced tea has 5 calories and no sugar. You can learn a lot from a food label.

\* Percent Daily Values are based on a daily diet of 2,000 calories. Your Daily Values may be higher or lower depending on your calorie needs.

# Ana's Food Choices

Ana lives with her mother, who has diabetes. Ana is grocery shopping and wants to buy foods that are lower in calories to help her mother.

Look at the food labels. Help Ana select foods that are lower in sugar.

Which foods should Ana buy? Write the number of your choice for each pair in the space between the labels. Then write the number of grams of sugar saved by this choice.

### 1 – Whole Oat Cereal\*

Nutrition Facts	
Serving Size 1 cup Servings Per Container 19	
Amount Per Serving	
<b>Calories</b> 150	Calories from Fat 20
% Daily Value†	
<b>Total Fat</b> 2g	<b>3%</b>
<b>Saturated Fat</b> 0g	<b>0%</b>
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 280mg	<b>12%</b>
<b>Total Carbohydrate</b> 23g	<b>8%</b>
<b>Dietary Fiber</b> 3g	<b>12%</b>
<b>Sugars</b> 1g	
<b>Protein</b> 3g	
Vitamin A 30%	Vitamin C 25%
Calcium 20%	Iron 45%

Lower sugar choice

Grams of sugar saved

### 2 – Chocolate Puffs Cereal\*

Nutrition Facts	
Serving Size 3/4 cup Servings Per Container 14	
Amount Per Serving	
<b>Calories</b> 160	Calories from Fat 5
% Daily Value†	
<b>Total Fat</b> 0.5g	<b>1%</b>
<b>Saturated Fat</b> 0g	<b>0%</b>
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 190mg	<b>8%</b>
<b>Total Carbohydrate</b> 27g	<b>9%</b>
<b>Dietary Fiber</b> 0g	<b>0%</b>
<b>Sugars</b> 13g	
<b>Protein</b> 2g	
Vitamin A 20%	Vitamin C 25%
Calcium 10%	Iron 10%

### 3 – Gelatin

Nutrition Facts	
Serving Size 1/4 cup Servings Per Container 8	
Amount Per Serving	
<b>Calories</b> 80	Calories from Fat 0
% Daily Value†	
<b>Total Fat</b> 0g	<b>0%</b>
<b>Saturated Fat</b> 0g	<b>0%</b>
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 100mg	<b>4%</b>
<b>Total Carbohydrate</b> 19g	<b>6%</b>
<b>Dietary Fiber</b> 0g	<b>0%</b>
<b>Sugars</b> 19g	
<b>Protein</b> 2g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 0%

Lower sugar choice

Grams of sugar saved

### 4 – Sugar-Free Gelatin

Nutrition Facts	
Serving Size 1/4 cup Servings Per Container 8	
Amount Per Serving	
<b>Calories</b> 10	Calories from Fat 0
% Daily Value†	
<b>Total Fat</b> 0g	<b>0%</b>
<b>Saturated Fat</b> 0g	<b>0%</b>
<b>Trans Fat</b> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 55mg	<b>2%</b>
<b>Total Carbohydrate</b> 0g	<b>0%</b>
<b>Dietary Fiber</b> 0g	<b>0%</b>
<b>Sugars</b> 0g	
<b>Protein</b> 1g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 0%

\* The serving sizes of the cereals are not the same because cereal serving size is determined by weight (ounces), and some cereals weigh more than others.

† Percent Daily Values are based on a 2,000-calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

# Ana's Food Choices (continued)

## 5 – Fat-Free, No-Sugar-Added Ice Cream

Nutrition Facts	
Serving Size 1/2 cup (66g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 80	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	<b>1%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 50mg	<b>2%</b>
<b>Total Carbohydrate</b> 19g	<b>6%</b>
Dietary Fiber 5g	<b>20%</b>
Sugars 4g	
<b>Protein</b> 3g	
Vitamin A 6%	Vitamin C 0%
Calcium 8%	Iron 0%

## 6 – Regular Ice Cream

Nutrition Facts	
Serving Size 1/2 cup (66g)	
Servings Per Container 16	
Amount Per Serving	
<b>Calories</b> 170	Calories from Fat 80
% Daily Value*	
<b>Total Fat</b> 9g	<b>14%</b>
Saturated Fat 6g	<b>30%</b>
Trans Fat 0g	
<b>Cholesterol</b> 20mg	<b>7%</b>
<b>Sodium</b> 40mg	<b>2%</b>
<b>Total Carbohydrate</b> 21g	<b>7%</b>
Dietary Fiber 1g	<b>4%</b>
Sugars 17g	
<b>Protein</b> 2g	
Vitamin A 4%	Vitamin C 0%
Calcium 6%	Iron 4%

Lower sugar choice

Grams of sugar saved

## 7 – Guava Nectar

Nutrition Facts	
Serving Size 1 can (340mL)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 240	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	<b>0%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 25mg	<b>1%</b>
<b>Total Carbohydrate</b> 59g	<b>20%</b>
Dietary Fiber 2g	<b>8%</b>
Sugars 48g	
<b>Protein</b> 1g	
Vitamin A 15%	Vitamin C 100%
Calcium 4%	Iron 8%

## 8 – Water

Nutrition Facts	
Serving Size 8 fl oz (240mL)	
Servings Per Container 2	
Amount Per Serving	
<b>Calories</b> 0	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	<b>0%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 0mg	<b>0%</b>
<b>Total Carbohydrate</b> 0g	<b>0%</b>
Dietary Fiber 0g	<b>0%</b>
Sugars 0g	
<b>Protein</b> 0g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 0%

Lower sugar choice

Grams of sugar saved

\* Percent Daily Values are based on a 2,000-calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

## Strawberry and Pineapple Delight Recipe

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2 cups	boiling water
1 package (8-serving size)	sugar-free, low-calorie strawberry gelatin
½ teaspoon	cinnamon powder
1 large can (20 ounces)	pineapple chunks in fruit juice, not drained
1 can (11 ounces)	mandarin orange segments in fruit juice, drained
16 large	ice cubes

1. Pour boiling water in a large bowl. Add the gelatin and cinnamon powder to the water. Stir for at least 2 minutes, making sure the gelatin is completely dissolved.
2. Drain pineapple chunks, and save the juice. Add ice (or cold water) to the leftover juice to measure 1½ cups. Add gelatin. Stir until ice is completely melted.
3. Refrigerate about 45 minutes or until gelatin is slightly thickened (consistency of unbeaten egg white).
4. Reserve ¼ cup each of the pineapple and orange. Add the remaining pineapple and orange to gelatin. Pour into a 1½-quart serving bowl.
5. Refrigerate 4 hours or until firm. Garnish with the reserved pineapple and orange segments.

### Quick Fact

This refreshing healthy dessert will satisfy any sweet tooth.

### Yield: 12 servings

Serving size: ½ cup

Each serving provides:

Calories: 41

Total fat: 0 g

Saturated fat: 0 g

Cholesterol: 0 g

Sodium: 23 g

Total fiber: 1 g

Protein: 1 g

Carbohydrates: 10 g

Sugars: 9 g

Potassium: 94 mg

## Weekly Promise - Week 6

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This week, think about ways to manage blood sugar levels.

- Are there habits that might be leading to higher blood sugar levels?
- Are you ready to make a change or shift to any eating habits or physical activity habits?

Tips:

- Small changes are easier to make than big ones.
- It may be easier to focus on adding healthy food (like a fruit, vegetable or water) to your routine vs. taking foods away when you are just getting started.

