

Lifelong Balance

» SUGAR & YOUR HEALTH



Welcome to class! We will begin shortly!

Today's Discussion

Sugar & Your Health

Today's Discussion

1

The difference
between added
sugar versus
natural sugar

2

Learn about
where to
find sugar
on a label

3

How to
improve
your blood
sugar

What do you want to spend the
most time talking about today?



Natural Versus Added Sugar

Natural Sugar

- Naturally occurring
- Found in
 - Milk
 - Fruit
 - Vegetables



Added Sugar

- Sugars or caloric sweeteners that are added to foods or beverages during processing or preparation
- *Added sugars can be natural sugars (i.e. honey, agave) or chemically manufactured (i.e. high fructose corn syrup)*



Excess Sugar Consumption

- Excess calories consumed from sugar are stored as body fat
- Added sugar causes blood sugar spikes
 - Can eventually lead to prediabetes or type II diabetes
- Increases risk of heart disease and type 2 diabetes
- Can raise triglycerides and cause inflammation



Natural Sugar

- Natural sugar metabolizes differently
- Fiber from the fruit or vegetables slows down sugar absorption
- Protein and/or fat content from milk digests more slowly, slowing down sugar absorption



Added Sugar

- Breaks down rapidly in the body
- Provides us with additional calories, but no nutritional benefits
- High added sugar intake increases risk of other chronic conditions
- Reducing sugar intake:
 - Cuts calories, reduces inflammation, improves heart health, and helps maintain weight



Main Sources of Added Sugar



Sugary beverages



Sugary cereals/snacks



Candy/chocolate



**Cakes, cookies,
pastries, pies**



**Flavored yogurts, dairy
desserts, sweetened milk
products**



**Fruit drinks,
alcoholic beverages**

How much sugar is in the following products?

How much sugar?

10 teaspoons



Regular soda

4 teaspoons



Fruit pastry

8 teaspoons



Sports drink

4 teaspoons



Chocolate sandwich cookies

20 teaspoons



Chocolate milkshake

5 teaspoons



Strawberry flavored yogurt

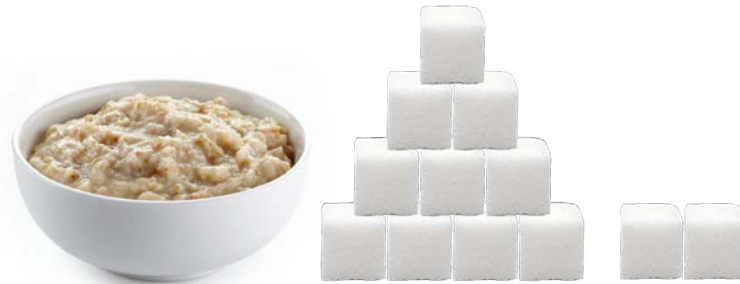
Surprising Sources of Added Sugar

11 teaspoons



Granola

12 teaspoons



**Instant apple cinnamon
flavored oatmeal**

14 teaspoons



**Frozen meatloaf
dinner**

11 teaspoons



Granola bar

10 teaspoons



Pasta sauce (1 cup)

2 teaspoons



Ketchup (2 tbsp)

How can you find sugar on nutrition labels?

How to Find Sugar on a Label

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Total Sugars 12g

Includes 10g Added Sugars **20%**

Guidelines require a section for **added sugar**

Common Names for Added Sugar

- Agave nectar
- Barbados sugar
- Barley malt
- Barley malt syrup
- Beet sugar
- Brown sugar
- Buttered syrup
- Cane juice
- Cane juice crystals
- Cane sugar
- Caramel
- Carob syrup
- Castor sugar
- Coconut palm sugar
- Coconut sugar
- Confectioner's sugar
- Corn sweetener
- Corn syrup
- Corn syrup solids
- Date sugar
- Dehydrated cane juice
- Demerara sugar
- Dextrin
- Dextrose
- Evaporated cane juice
- Free-flowing brown sugars
- Fructose
- Fruit juice
- Fruit juice concentrate
- Glucose
- Glucose solids
- Golden sugar
- Golden syrup
- Grape sugar
- HFCS
(*High-Fructose Corn Syrup*)
- Honey
- Icing sugar
- Invert sugar
- Malt syrup
- Maltodextrin
- Maltol
- Maltose
- Mannose
- Maple syrup
- Molasses
- Muscovado
- Palm sugar
- Panocha
- Powdered sugar
- Raw sugar
- Refiner's syrup
- Rice syrup
- Saccharose
- Sorghum Syrup
- Sucrose
- Sugar (granulated)
- Sweet sorghum
- Syrup
- Treacle
- Turbinado sugar
- Yellow sugar

How to Find Sugar on a Label

Ingredients List

Cooked Rice (Water, White Rice),

Sauce (Water, Soy Sauce [Water, Soybeans, Wheat, Salt, Alcohol, Vinegar, Lactic Acid], Sugar, Modified Corn Starch, Pineapple Juice Concentrate, Rice Vinegar, Molasses, Less than 2% of: Garlic, Sesame Seed Oil, Chicken Flavor [Chicken Broth, Salt, Chicken Fat], Canola Oil, Cooking Wine [White Wine, Natural Flavor, Salt], Ginger, Chili Paste [Red Chili Peppers, Distilled Vinegar, Salt]),

Cooked Chicken (Chicken Breast, Water, Olive Oil, Contains 2% or less of Isolated Soy Protein Product [Isolated Soy Protein, Modified Potato Starch, Corn Starch, Carrageenan, Soy Lecithin], Dextrose, Potassium Chloride, Salt, Sodium Phosphate, Flavoring), Broccoli, Pineapple, Water Chestnuts, Carrots, Red Bell Peppers

How to Find Sugar on a Label

Ingredients List

Cooked Rice (Water, White Rice),

Sauce (Water, Soy Sauce [Water, Soybeans, Wheat, Salt, Alcohol, Vinegar, Lactic Acid], **Sugar**, Modified Corn Starch, **Pineapple Juice Concentrate**, Rice Vinegar, **Molasses**, Less than 2% of: Garlic, Sesame Seed Oil, Chicken Flavor [Chicken Broth, Salt, Chicken Fat], Canola Oil, Cooking Wine [White Wine, Natural Flavor, Salt], Ginger, Chili Paste [Red Chili Peppers, Distilled Vinegar, Salt]),

Cooked Chicken (Chicken Breast, Water, Olive Oil, Contains 2% or less of Isolated Soy Protein Product [Isolated Soy Protein, Modified Potato Starch, Corn Starch, Carrageenan, Soy Lecithin], **Dextrose**, Potassium Chloride, Salt, Sodium Phosphate, Flavoring), Broccoli, Pineapple, Water Chestnuts, Carrots, Red Bell Peppers

Sugar Substitutes and Non-Nutritive Sweeteners

Types of Sugar Substitutes

- **Non-nutritive and artificial sweeteners**

- Can be man-made or highly processed
- Add sweetness with little to no calories

- **Sugar alcohols**

- Found naturally in some foods
- About half the calories of sugar
- ~70% as sweet as sugar



Non-Nutritive Sweeteners and Sugar Alcohols

Non-Nutritive Sweeteners

- Acesulfame K
- Advantame
- Allulose
- Aspartame
- Monkfruit
- Neotame
- Saccharin
- Sodium cyclamate
- Stevia/Rebaudioside
- Sucralose

Sugar Alcohols

- Hydrogenated starch hydrolysates (HSH)
- Isomalt
- Lactitol
- Maltitol
- Mannitol
- Sorbitol
- Xylitol

Novel Sweeteners

- **Stevia Extracts**

- 200-400x sweeter than sugar
- From Stevia Rebaudiana leaves (South America)
- Widely available in packaged sweeteners

- **Monk Fruit (Luo Han Guo)**

- 100-250x sweeter than sugar
- From Siraitia grosvenorii (Southern China)
- Popular in beverages & baking

- **Allulose**

- 70% as sweet as sugar
- Found naturally in figs, raisins, wheat
- Very low calorie

- **Thaumatococcus**

- 2,000-3,000x sweeter than sugar
- Protein from Katemfe fruit (West Africa)
- Used in small amounts as flavor enhancer

Sugar Substitute Recommendations

- Limit to 2 servings or less per day for all sweeteners
- One serving is equal to:
 - One 12 oz. diet beverage
 - One 6 oz. sugar-free yogurt
 - One packet of sweetener
- Sugar alcohols:
 - Limit to 10-15 grams total per day*

**May cause GI upset if consumed in excess*



How Sugar Substitutes Affect You

- Safe in moderation (FDA-approved)
- Much sweeter than sugar (300–1000×)
- Can desensitize taste buds (food tastes less sweet over time)
- Sugar alcohols may cause stomach upset if eaten in excess
- Some sweeteners may affect blood sugar and gut health

Choose Natural Sweeteners

Choose More Often

- Dates & date sugar
- Coconut sugar
- Raw honey
- Maple syrup
- Blackstrap molasses
- Agave



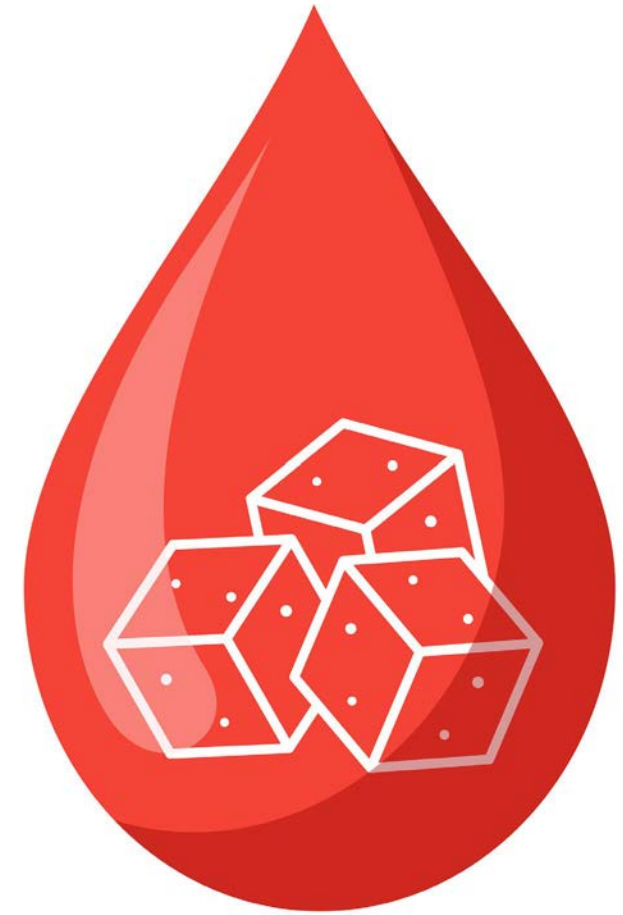
Daily Limit for All Added Sweeteners:

- ≤ 6 tsp (25 g or 100 cal)

How does excess sugar impact your body?

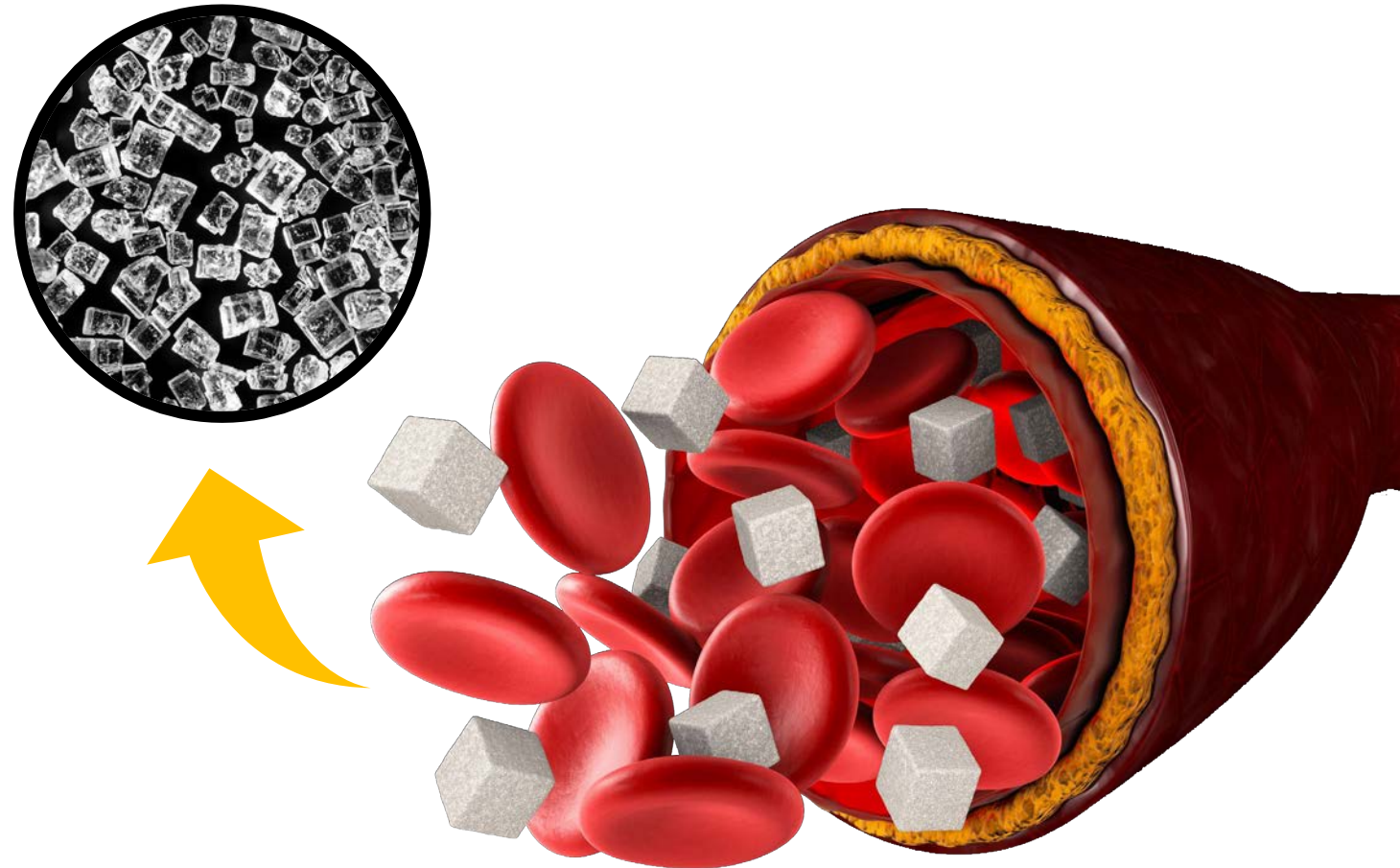
Sugar and The Body

- Glucose (sugar) is the body's main fuel source
- Carbohydrates and sugars break down quickly into glucose for energy
- Glucose is especially important during cardio and other physical activity



High Sugar and Inflammation

Too much sugar in the blood can irritate blood vessels, triggering chronic inflammation that raises the risk for heart disease, diabetes, and other health problems



Onset of Prediabetes and Type 2 Diabetes

- Diagnosed by a doctor
- Use measure of HbA1C
 - A blood test that measures your average glucose over the last 3 months
- What do A1C results mean?
 - **Normal:** Below 5.7%
 - **Prediabetes:** 5.7% to 6.4%
 - **Diabetes:** 6.5% or above

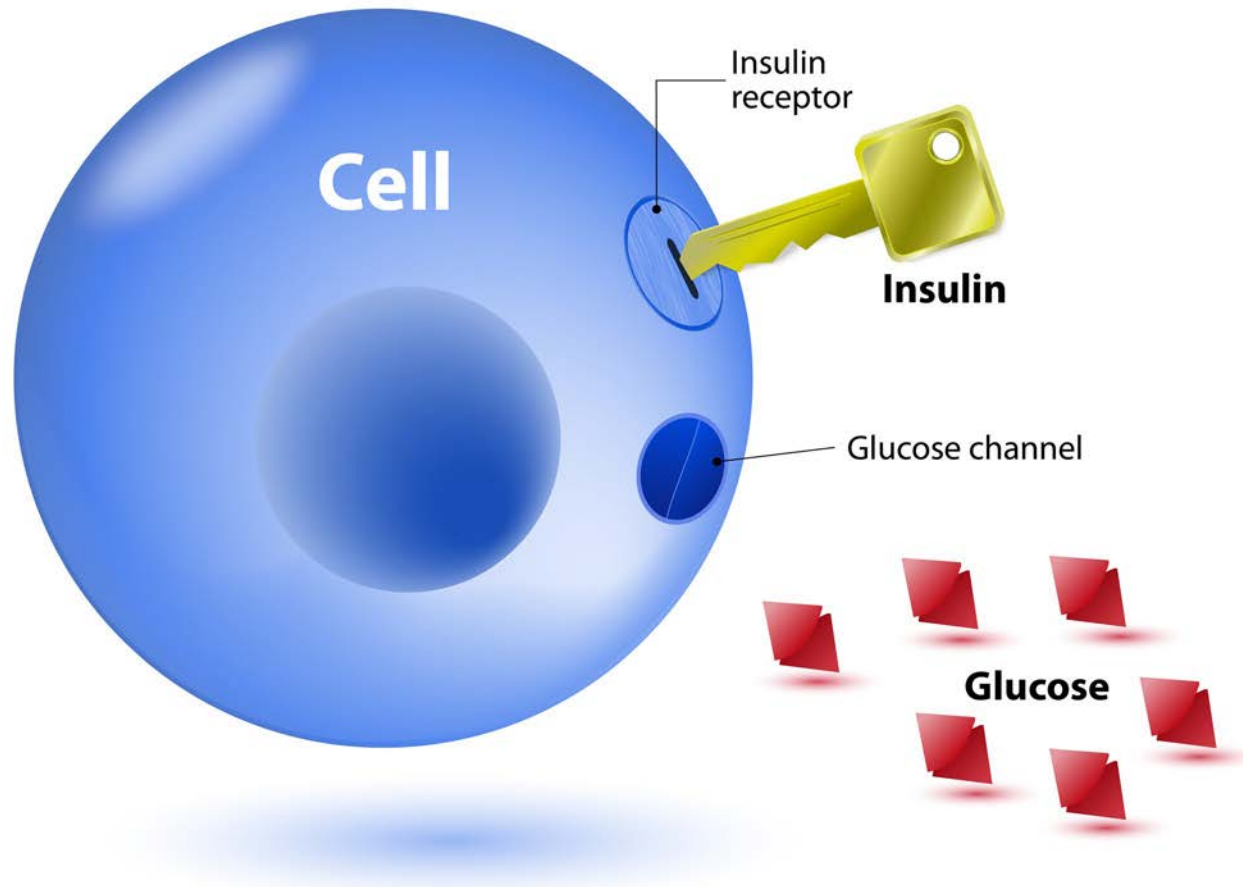


Onset of Type 2 Diabetes

- The pancreas makes insulin to lower blood sugar
- In insulin resistance, the body's cells don't respond well to insulin
 - As a result, sugar stays in the blood instead of moving into the cells

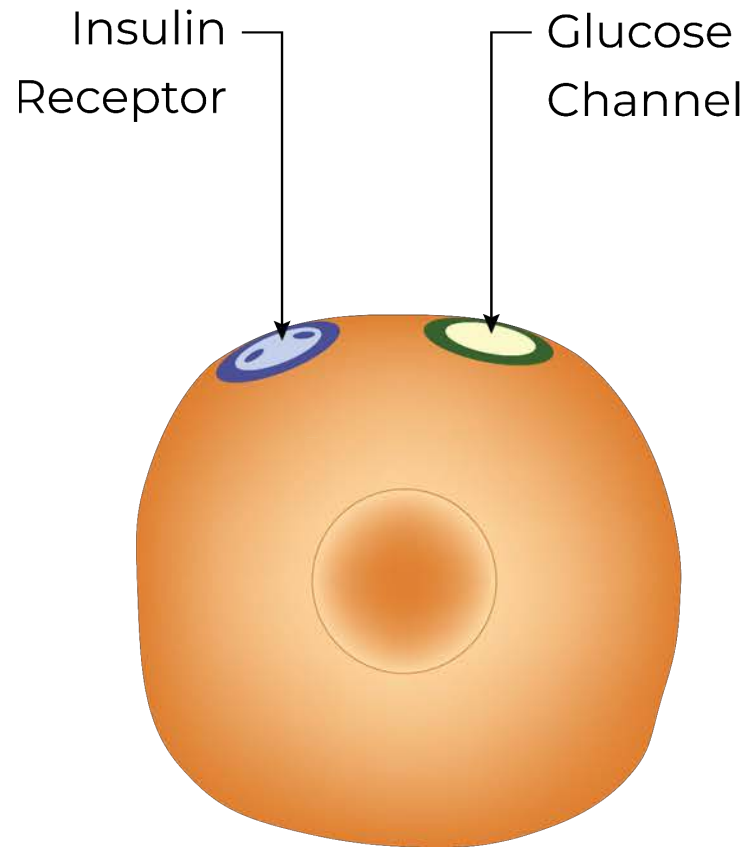


How Insulin and Glucose Work Together

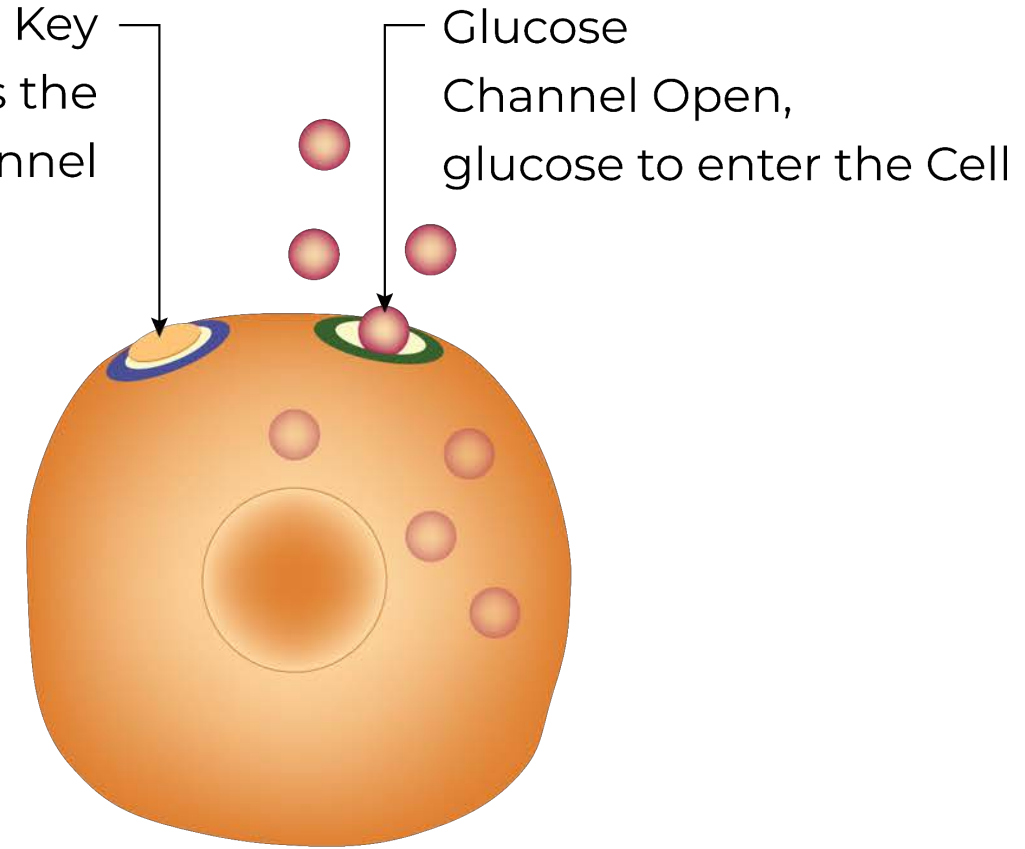


- The cell is **locked**
- Insulin is the **key**
 - Unlocks protein channel for glucose to flow into cell

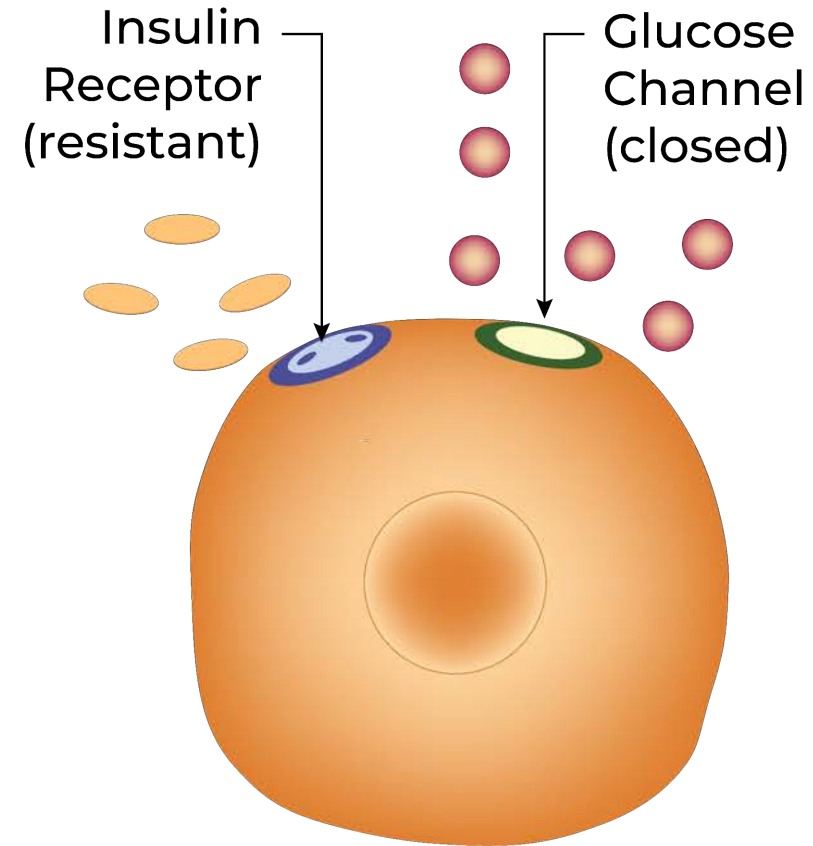
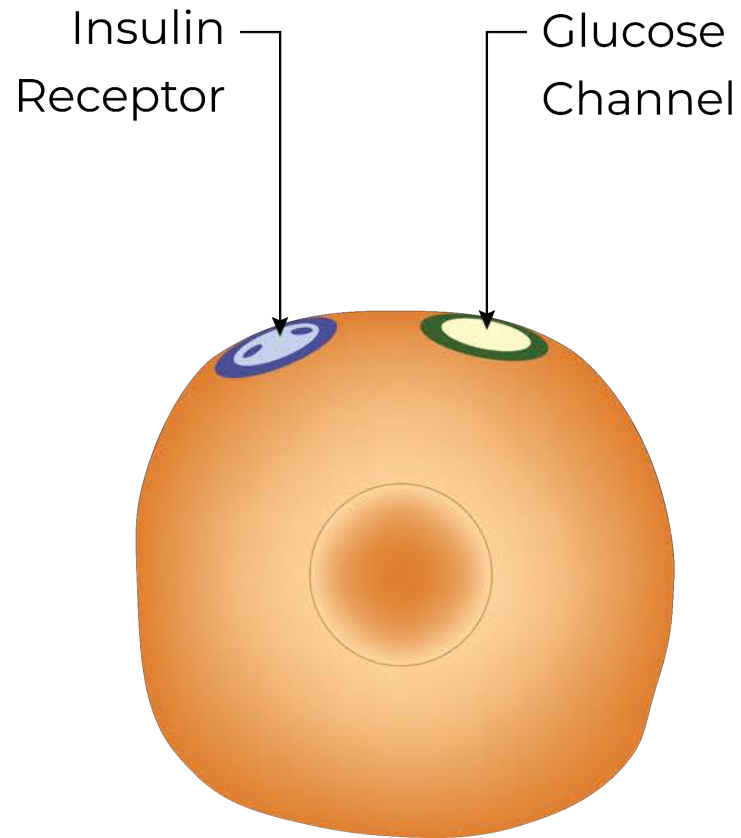
Normal Cell Function



Insulin is the Key
that Unlocks the
Glucose Channel



Type 2 Diabetes Cell Function



What can you do to manage or prevent prediabetes or type 2 diabetes?

What can you do?

- **Eat healthy food**

- Fruits, vegetables, and foods lower in saturated fat, added sugar, and are higher in fiber

- **Lose weight**

- Losing 10% of your body weight during first five years of diagnosis can lead to remission

- **Get active**

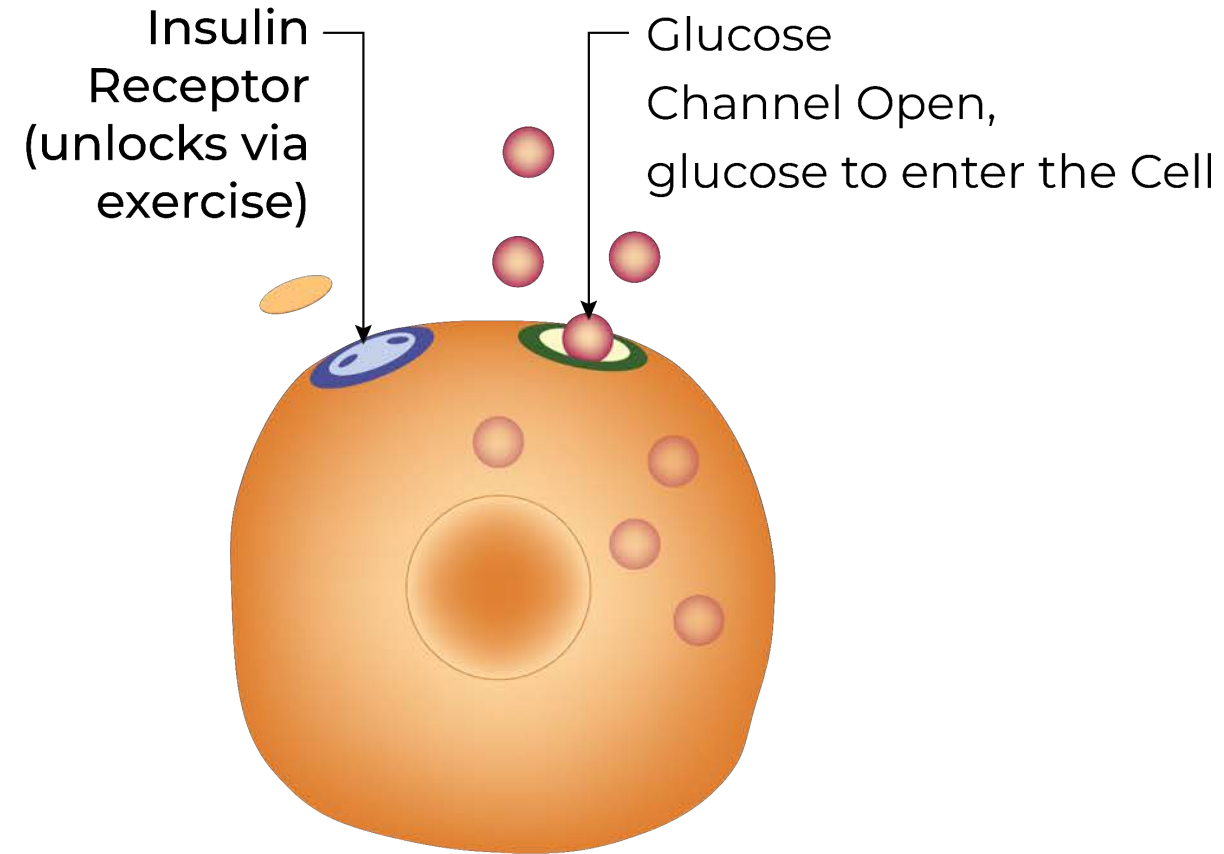
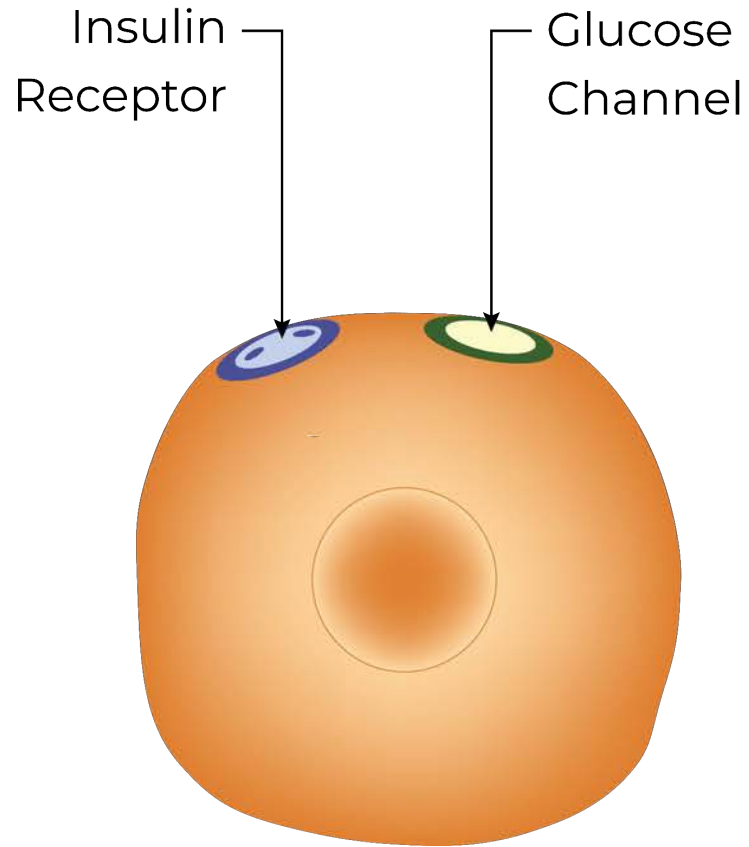
- Getting enough daily activity, cardiovascular exercise and strength training can help lead to remission of type 2 diabetes

What the Research Shows

- Exercise can cut diabetes risk in half for people with prediabetes
- Even 10-15 minutes of movement after meals lowers blood sugar spikes
- Improves blood sugar, cholesterol, and blood pressure

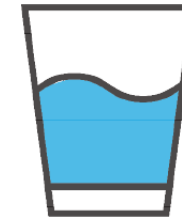
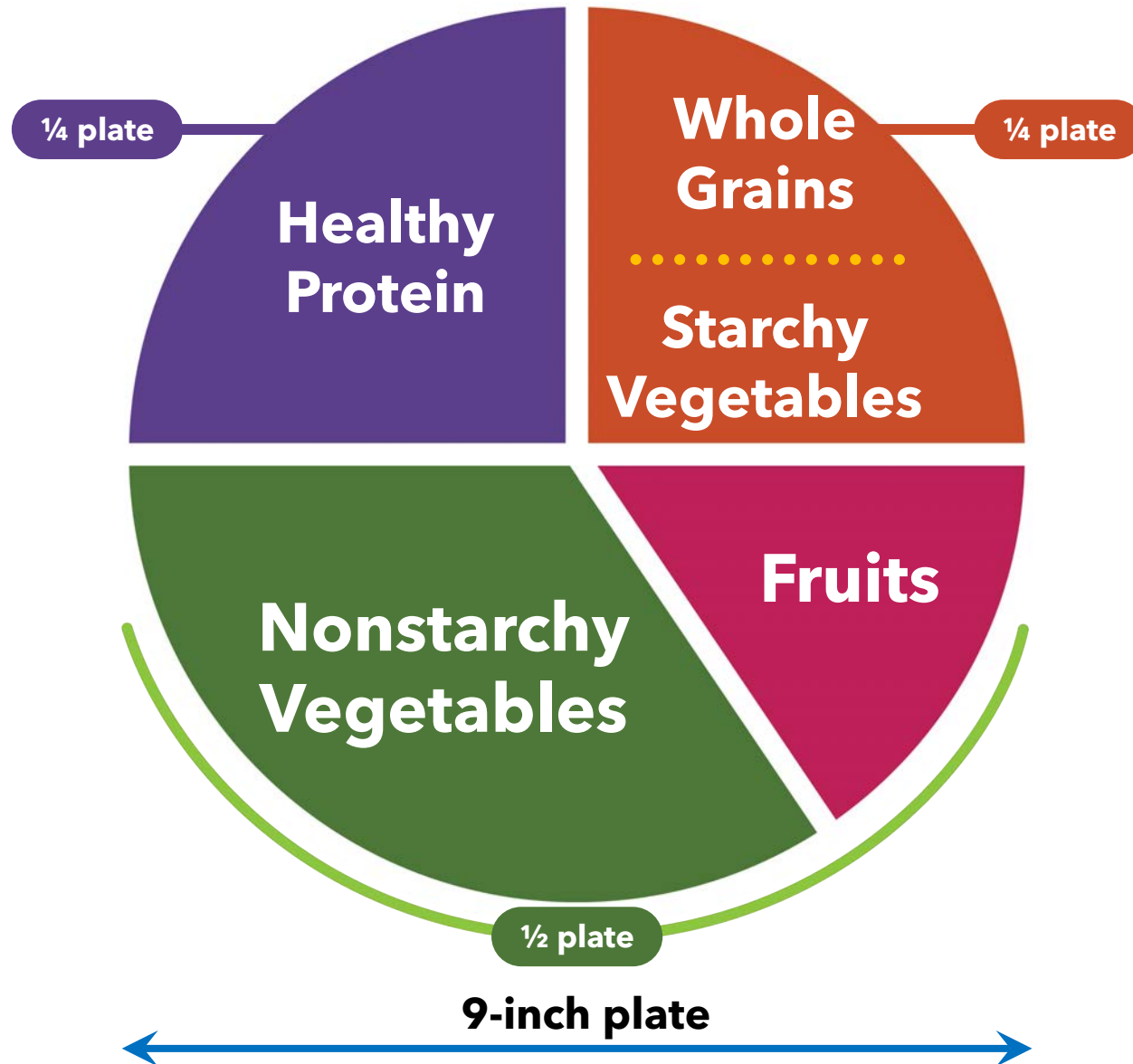


Cell Function with Exercise



The Healthy Plate

Refer to the Healthy Balance book for recommended portions, healthy food ideas, and recipes.



Water



Healthy fat



Seasonings

Nutrition Recommendation

Sample Daily Eating Plan



Milk (soy or cow), 1 cup
Quinoa, ½ cup
Eggs, 2
Fruits or
Vegetables, 1 cup



Fish, 4 oz.
Beans, ½ cup
Mango ½ cup
Vegetables, 1 cup
Avocado, ¼



Yogurt, 1 cup
Berries, 1 cup
Nuts, 2 Tbsp



Tofu, 4 oz.
Brown Rice, ½ cup
Vegetables, 2 cups
Sesame Seeds, 2 Tbsp

This Week

Choose a weekly goal, or make up your own:



Reduce
consumption of
added sugar



Increase
movement



Add in exercise to
reduce blood sugar



Other

Action Plan

Make it Personal

» Strengthening Your "How"

Your personal action plan should be specific, realistic, and something you can do this week.

Weekly Goal

What first step would you like to take this week?

Action Plan

Make it **SMART**



Specific



Measurable



Action-
Oriented



Realistic



Timely

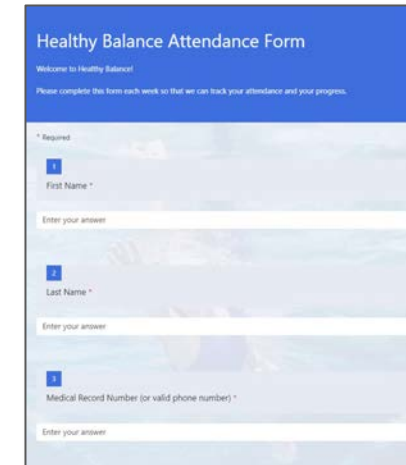
I will add in three 30-minute walks this week
to reduce my blood sugar.

Lifelong Balance

» HEART HEALTH ESSENTIALS

Discussion/Reflection Question:

What do you think are the most important things people can do to take care of their hearts?



The image shows a digital form titled "Healthy Balance Attendance Form". It includes a welcome message and instructions to complete the form weekly. The form has three required fields: "First Name", "Last Name", and "Medical Record Number (or valid phone number)". Each field has a corresponding input box and a "Required" label.

Have you filled out the attendance form?

Lifelong Balance



Your feedback matters—and it's completely anonymous.

Please take a moment to share your thoughts. Honest feedback helps us improve Lifelong Balance for everyone.

Complete the survey by clicking the link in the chat or scanning the QR code.



SCAN ME