

# The Role of Nutrition: Diabetes Prevention & Management

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# Overview



Terms and Definitions

Working with a Healthcare Provider

Reading labels

Building a Healthy Plate

Key Takeaways

# Terms and Definitions

- **Blood Glucose (Blood Sugar)** – Glucose circulating in the bloodstream, main energy source for the body, often measured and monitored for diagnosis and management of Diabetes
- **Insulin** – Hormone made in the pancreas, which helps the body utilize glucose from the bloodstream for energy. (Sometimes used as a medication to manage Diabetes)
- **Hemoglobin A1C** – Test used to measure average blood sugar over 3-month period
- **Prediabetes** - A condition in which blood sugar levels are higher than normal but are not high enough for a diagnosis of diabetes.
- **Type I Diabetes** – An autoimmune-mediated condition in which the pancreas either makes very little or no insulin resulting in high blood sugar levels. Insulin is required for management.
- **Type II Diabetes** – A condition in which blood sugar levels are high due to either a lack of insulin or inability to use insulin efficiently (insulin resistance)
- **Gestational Diabetes** – A condition in which blood sugar levels are elevated during pregnancy. Typically disappears after delivery, however, women that experience GDM are at a higher risk for developing Type II Diabetes


# Working With Your Healthcare Providers




- Regular checkups for disease prevention and management
- Mention all medications and dietary supplements
- Discuss involuntary changes in weight/appetite
- Ask for explanations of labs and other information as you'd like
- Ask for referrals to a Registered Dietitian if wanting more extensive nutrition counseling, Endocrinologist for management of Diabetes

# Know Your Numbers and Risk Factors

**Risk factors include** family history of diabetes, age, of African-American, Asian-American, Latino/Hispanic-American, Native American or of Pacific-Islander descent, history of prediabetes or gestational diabetes, overweight/obese, diet high in refined carbohydrates, physical inactivity



Screening for diabetes should be discussed with your physician. It's generally recommended to start screening between 35-45 years old but may be recommended sooner, especially if you have one or several risk factors.

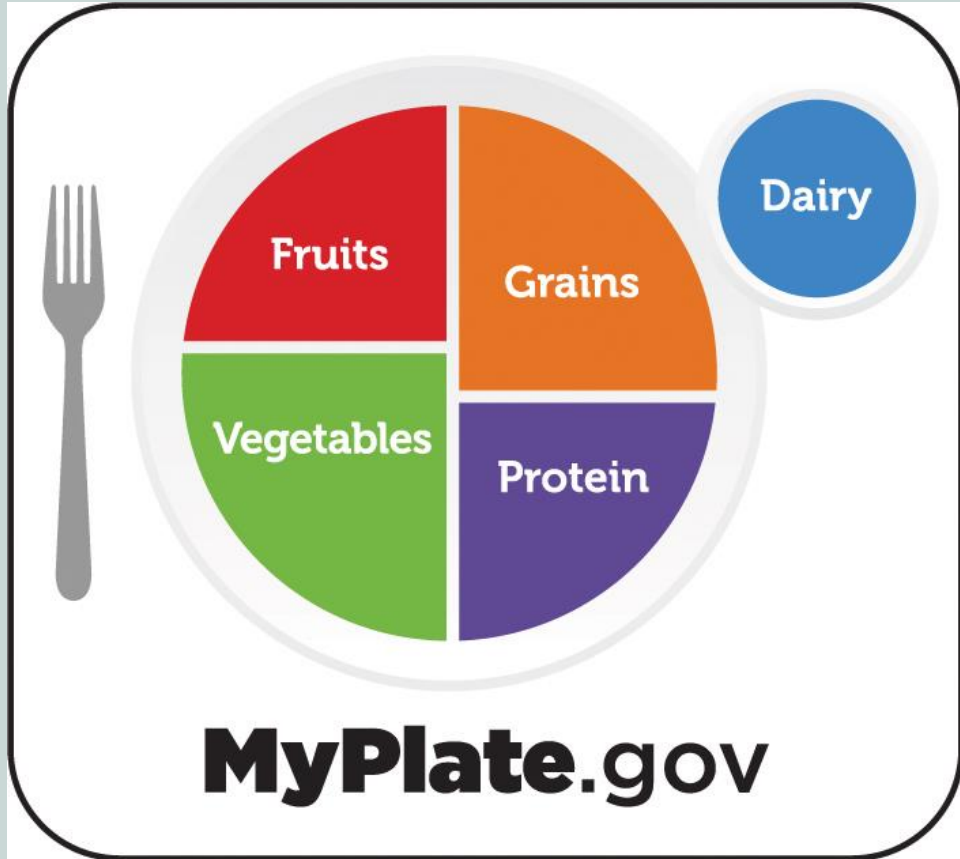


If you are managing diabetes, make sure to track blood sugar levels (frequency and timing will be determined by your healthcare providers) and blood pressure. Other numbers such as cholesterol and triglycerides should also be checked regularly (likely annually) and Hemoglobin A1C may be checked every few months

# Lifestyle Changes for Preventing/Managing Diabetes

- Regular physical activity (recommendations are to get 150 minutes of moderate-intensity activity every week with strength-focused exercises incorporated at least twice)
- Good nutrition! Balancing snacks, meals, and beverages can benefit insulin sensitivity and stabilize our blood sugar levels
- Maintaining a healthy weight can help with prevention and management and can reduce our risk for other chronic diseases
- Adequate sleep encourages us to make healthy food choices and gives us the energy to be active during the day
- Find a healthy way to manage your stress (breathing techniques, yoga, walks in nature, etc.)

# Balancing Meals/Snacks



- MyPlate is a great visual for encouraging us to incorporate a variety of foods groups into meals to get the nutrients we need.
- It may not be appropriate for individuals managing chronic diseases such as diabetes
- Including a source of protein with meals and snacks will help stabilize your blood sugar levels and help with satiety (the feeling of fullness)
- Portion control of carbohydrate foods and drinks and quality of carbohydrates is essential for managing blood sugar

# Visualizing g Portions

**Thumb  
(tip to 1<sup>st</sup> joint)**  
Measurement equivalent  
• 1 tablespoon  
Foods for reference  
• peanut butter

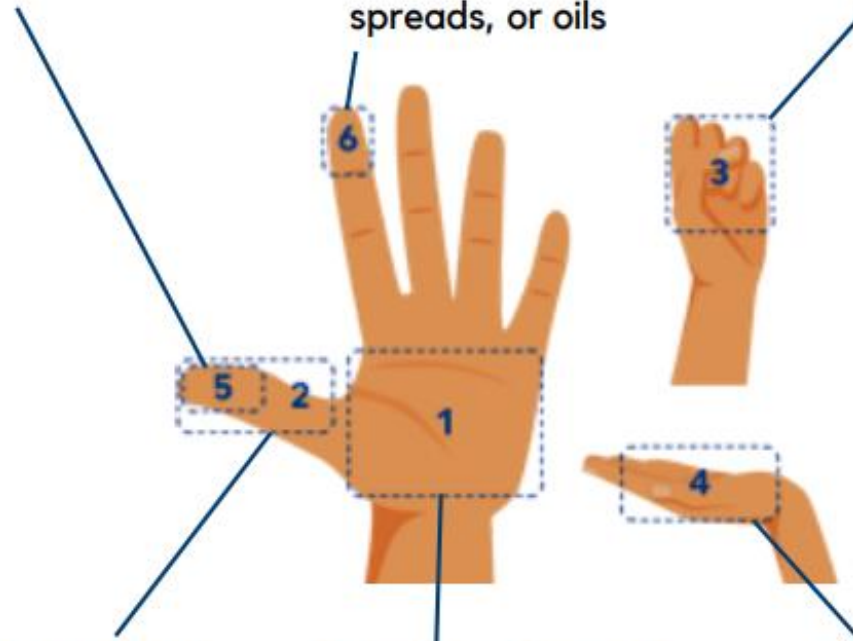
**Fingertip  
(tip to 1<sup>st</sup> joint)**  
Measurement equivalent  
• 1 teaspoon  
Foods for reference  
• butter, margarine,  
spreads, or oils

**Average-sized fist**  
Measurement equivalent  
• 1 cup  
Foods for reference  
• medium fruit, cut up  
vegetables, or beans,  
pasta, rice, or grains

**Thumb (tip to base)**  
Measurement equivalent  
• 1 ounce  
Foods for reference  
• cubed cheese, nuts,  
or seeds

**Palm (no fingers)**  
Measurement equivalent  
• 3 ounces  
Foods for reference  
• Cooked meat, fish,  
or poultry

**Large cupped hand**  
Measurement equivalent  
• 2 ounces  
Foods for reference  
• Dried fruit, pretzels  
or shredded cheese





# Simple vs Complex Carbohydrates

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## Simple

- Comprised of simple sugars
- Rapidly breakdown, are easily utilized for energy
- May lead to a “spike” in blood sugar
- Examples: sugar sweetened beverages, juice, packaged cookies, cornflakes, white bread



## Complex

- Comprised of more complex structures
- Often contain fiber
- Will raise blood sugar gradually
- Examples: whole piece of fruit, shredded wheat, whole grains, vegetables

# Carbohydrates on the Nutrition Facts Label



<b>Nutrition Facts</b>	
8 servings per container.	
<b>Serving size</b>	<b>2/3 cup (55g)</b>
<b>Amount Per Serving</b>	
<b>Calories</b>	<b>230</b>
	<small>% Daily Value*</small>
<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	<b>5%</b>
<i>Trans</i> Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 3g	<b>6%</b>
<b>Vitamin D</b> 2mcg	<b>10%</b>
<b>Calcium</b> 260mg	<b>20%</b>
<b>Iron</b> 8.1mg	<b>45%</b>
<b>Potassium</b> 282mg	<b>6%</b>
<small>*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.</small>	

- Total Carbohydrate: Includes all carbohydrates present in the food (starch, fiber, total sugar, sugar alcohols)
- Starch and sugar alcohols are not required to be listed individually
- Total sugars include naturally occurring and added sugars
- Added sugars offer no additional nutrition and are a nutrient we should work to decrease

Grab a label of a food or beverage you have on hand and practice with me!

# Carbohydrate Counting

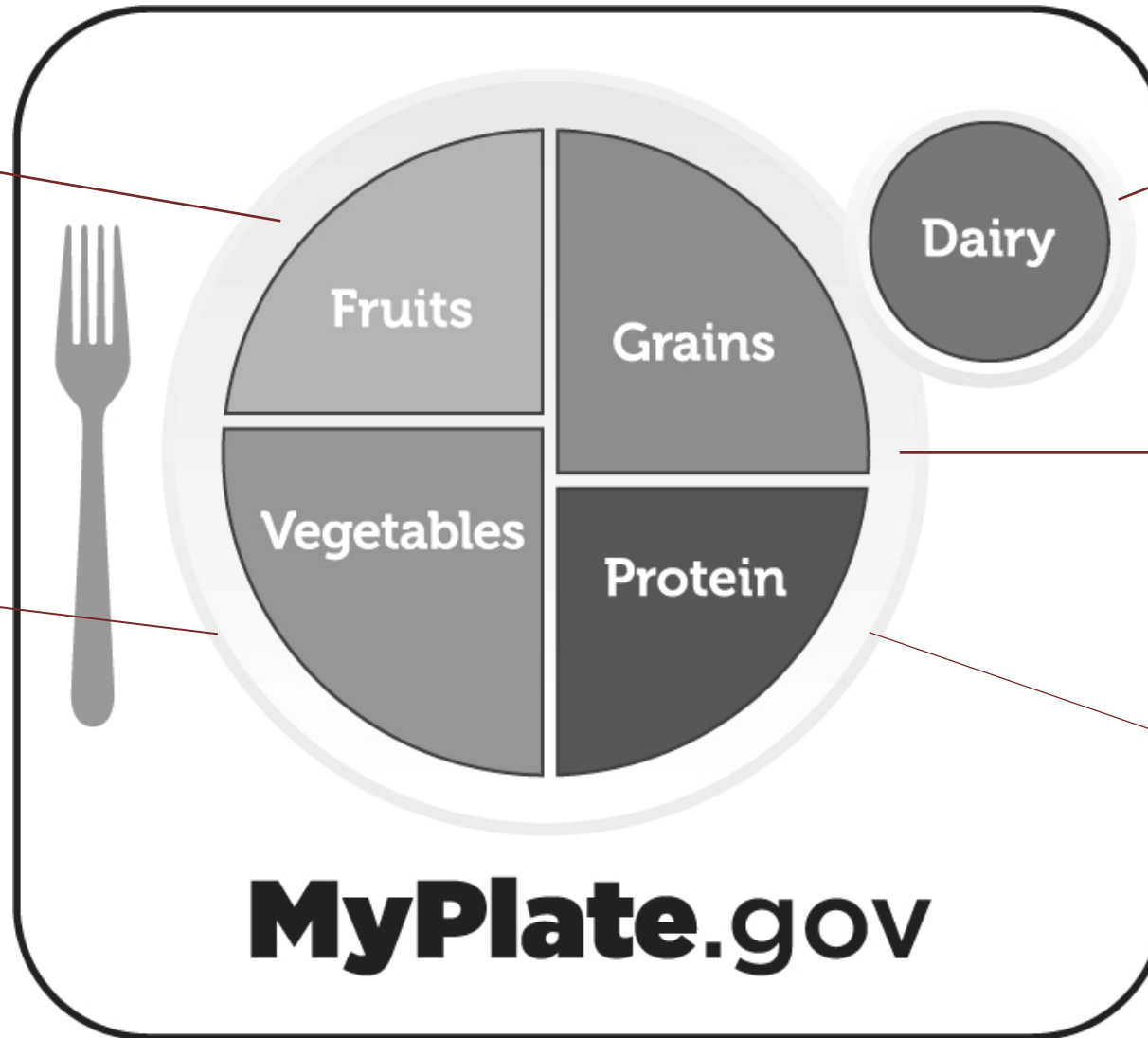


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- A method of measuring carbohydrate intake
- Often used for insulin dosing and monitoring the amount of carbohydrates consumed at a meal
- Often measured in 15 g total carbohydrate increments known as a “carb choice”

# Let's Practice Building a Plate

~ 1 cup fruit salad for dessert (or fruit with mixed nuts for a snack later)



1 oz Shredded Cheddar and 1 tsp sour cream

2  
6" corn tortillas

3 oz of beef fajitas

~ 1 cup of Sautéed bell pepper and onions, 2 Tbsp guacamole

# Key Takeaways

- Work with your healthcare providers for regular screenings/check ups and to determine your specific needs for nutrition and medications
- Maintain an active lifestyle to help prevent and manage chronic disease
- Focus on getting adequate sleep and finding ways to manage stress
- Balance meals and snacks and try to include a source of protein with each
- Aim to limit added sugars, especially in your beverages
- Focus on quality and quantity of carbohydrates (portion control, including high fiber carbohydrates)

# References

- Added Sugars. (n.d.). Retrieved October 06, 2022, from <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sugar/added-sugars>
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# Questions?



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