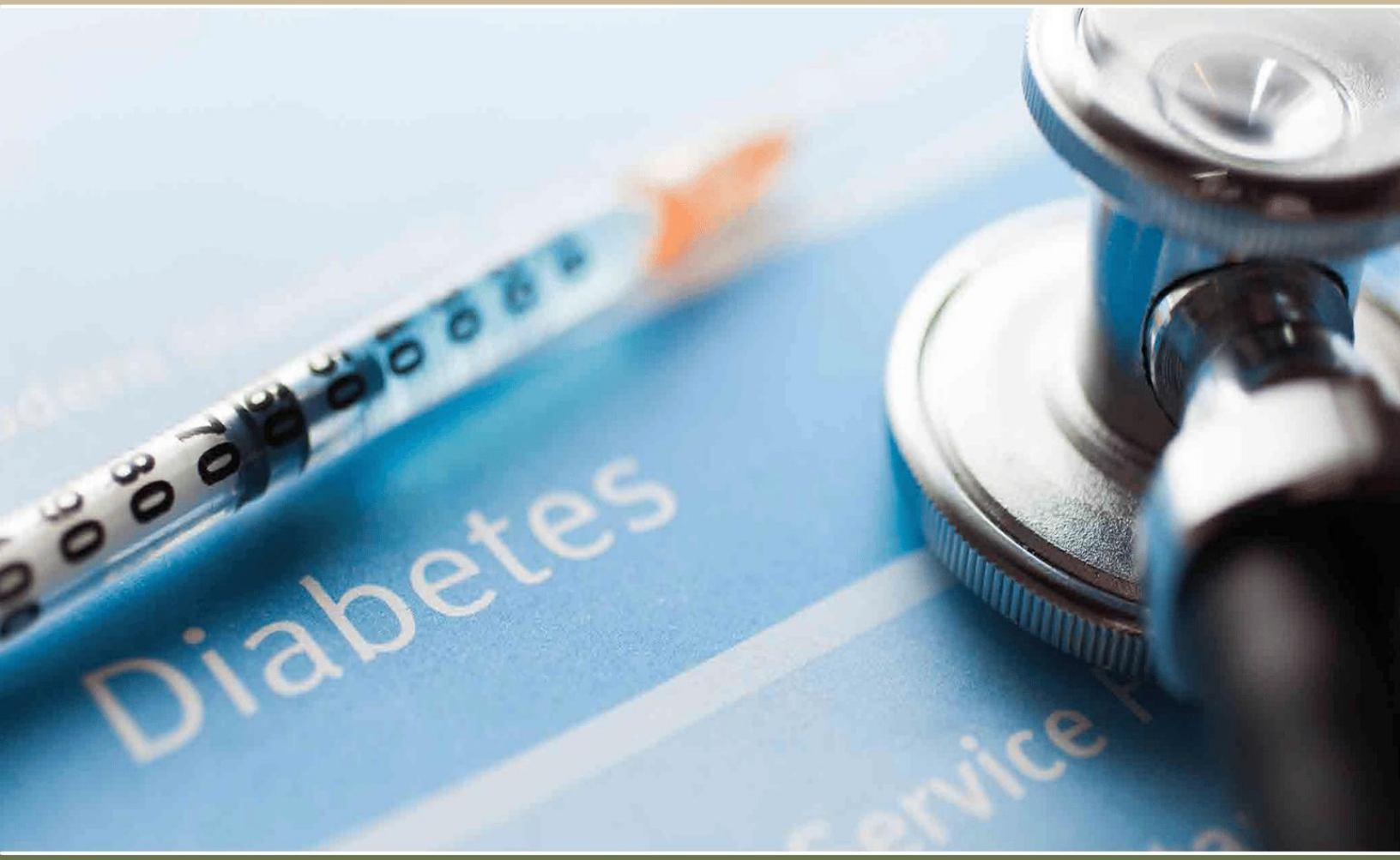
PATIENT HANDBOOK

Updated: September 2026



Diabetes Self-Management Education and Support

Healthy Eating

Disclaimers

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AI-enabled tools were used to assist in the development of select content within this presentation. All outputs were reviewed, validated and approved by the authors prior to use/dissemination.

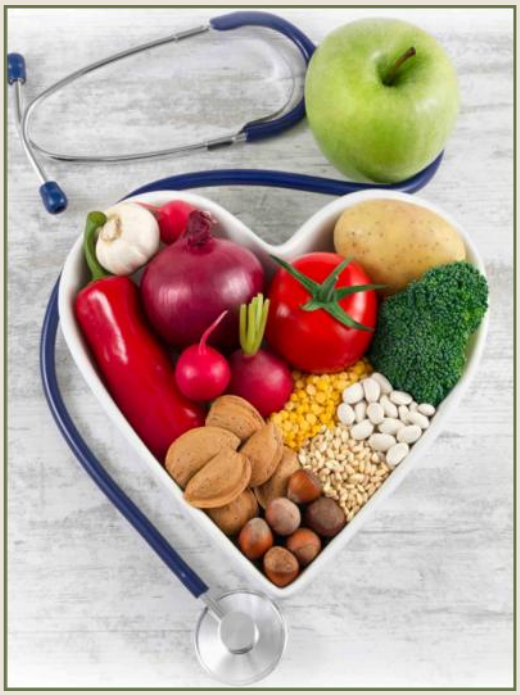


Welcome to the DHA Diabetes Self-Management Education and Support (DSMES) Program

This program has 8 core modules that focus on Type 2 Diabetes with additional modules available for Type 1 and Gestational Diabetes. These are available in-person, virtually and recorded so they are available at your convenience.
warfighterwellness.org/diabetes

All handbooks, contain:
- Reading materials.
- Notetaking pages.
- Glossary.
- Additional resources.

- Diabetes Demystified
- Healthy Coping
- Healthy Eating
- Being Active
- Taking Medications
- Monitoring
- Reducing Risk
- Tools & Solutions



In This Module You Will:

- Identify key approaches to healthy eating.
- Describe how to use the Plate Method to create balanced meals and appropriate portions.
- Identify carbohydrate sources and how they affect blood glucose.
- Explain how reading the Nutrition Facts on a food label can help manage blood glucose.
- Recognize healthy meal plans.
- Explain the importance of managing weight.

Glossary

Macronutrients: The main nutrients our bodies need in large amounts every day. They include carbohydrates, proteins and fats.

Micronutrients: We get these important helpers by eating a colorful variety of fruits, vegetables and other healthy foods. Examples are vitamins and minerals.

Monounsaturated: A type of fat found in foods like olive, avocados and nuts that are beneficial. Liquid at room temperature.

Polyunsaturated: A healthy fat found in foods like fish, walnuts and sunflower seeds that your body cannot make on it's own. Is liquid even when cold.

Saturated: Fat molecules "saturated" with hydrogen atoms that makes them solid at room temperature. Typically found in animal products and some tropical plant oils. These increase risk of heart attacks and strokes.

Starch: A molecule that consists of thousands of glucose rings linked together. A sugar molecule is typically one or two of these glucose rings.

Health Literacy

Health literacy around healthy eating means more than just knowing "vegetables are good for you". It is the practical ability to find, understand and use nutritional information to make smart daily food choices that protect your long-term health.

Language Matters

There is no such thing as "bad" foods. Some foods can spike glucose by raising body levels quickly after eating them. Using portion sizes that work for your body and combining with other macronutrients can prevent the spike.

No "Bad Foods"



There are no forbidden foods when you have diabetes and you are not required to eat "rabbit food"!

- Know recommended portion sizes.
- Watching glucose levels after eating something high in glucose or starch.
- Know what to do better next time that item is included.

ALL foods can fit into a healthy lifestyle!

What does healthy eating mean to you?

What do you find MOST challenging about healthy eating?



Key Nutrition Principles

Include:

- Non-starchy vegetables.
- Whole fruits.
- Lean proteins.
- Whole grains.
- Nuts, seeds, legumes.
- Low-fat dairy or nondairy alternatives.
- Choose water over other beverages.

Limit:

- Fatty meats.
- Sugar-sweetened beverages.
- Sweets.
- Refined grains.
- Processed foods.
- Ultra-processed foods.

Macronutrients

Carbohydrates (Carbs):

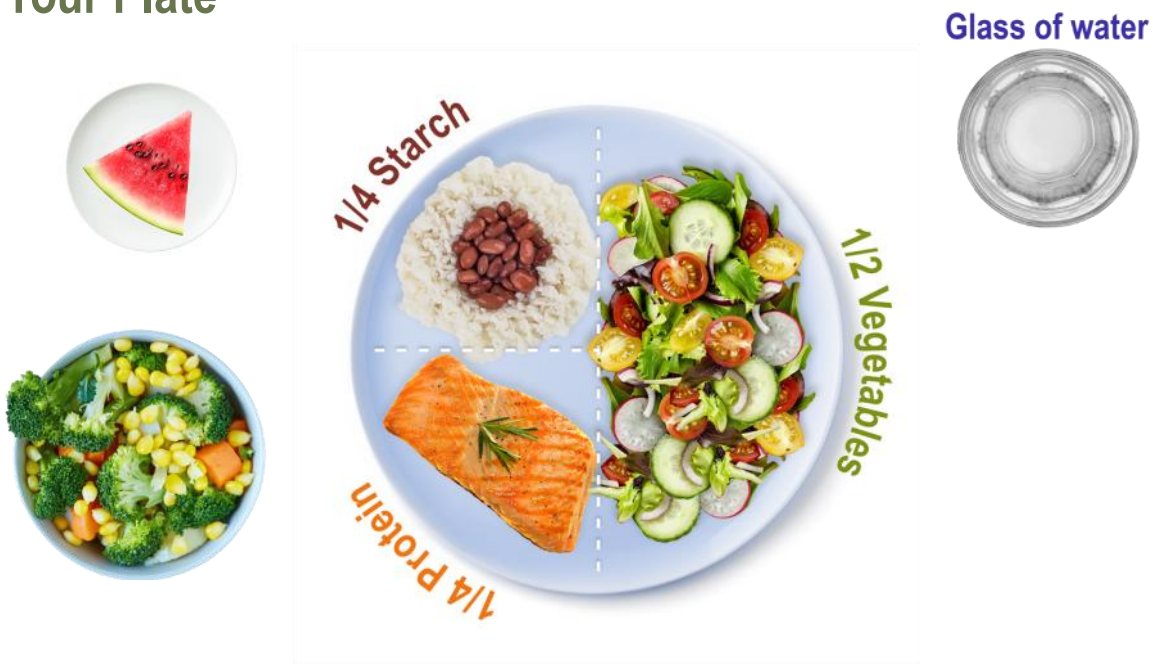
- **Simple Carbs:** Gives quick energy but can make you crash later.
- **Complex Carbs:** These digest slowly and give you steady energy because they contain fiber.

Proteins: Building blocks for nearly all cells in the body. Helps to build and maintain muscle and support immune function.

Fats: Help with nutrient absorption, organ protection and energy storage.

- **Unsaturated:** Heart healthy, mostly from plants (olive, avocado, nuts). Includes monounsaturated and polyunsaturated.
- **Saturated:** Increases lousy cholesterol, solid at room temperature, mostly from animals (butter, chicken skin, lard).
- **Trans Fats:** Very unhealthy for heart, man-made fat to increase shelf life in foods (some pastries, fast food).

Plan Your Plate



Does your plate look like this one?

Plate Method Tips

- Pick many different colors of vegetables. Each color has different micronutrients.
- Drink more water.
- Eat non-starchy vegetables first, then protein, then starches.
- Mix lower fiber carbs with high fiber carbs.
- Eat 3 meals per day. Aim for consistency.
- Work with a Diabetes Care and Education Specialist or Registered Dietitian/ Nutritionist to assist with meal planning.



Portion sizes

Recommend weighing or measuring and seeing how those compare to the size of something else, like your hand, for future reference.



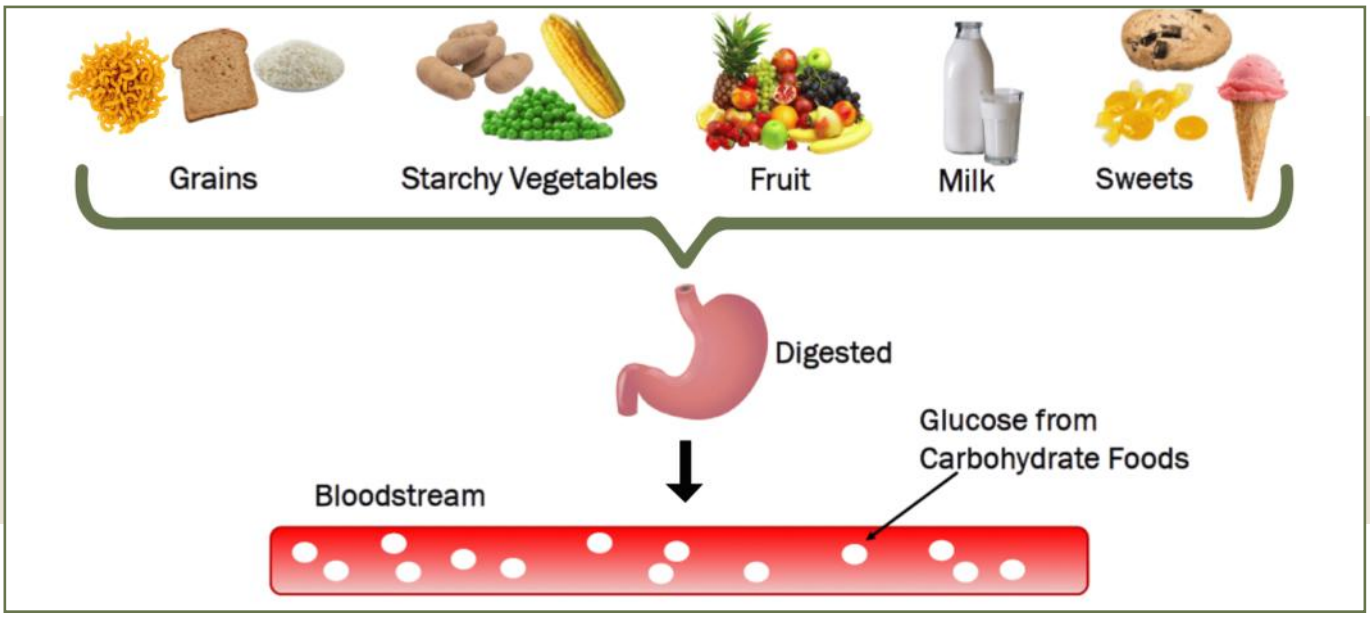




Carb Facts

- Converts into glucose.
- Provides energy or fuel for the body.
- Should be eaten in moderation.
- Should not be avoided completely.
- Affect glucose more than non-starchy vegetables, protein and fats. Non-starchy vegetables are low cab and not impactful on glucose levels.
- Should be balanced with proteins and heart healthy fats to slow glucose spikes.

Paying attention to all carbs that can spike glucose and working to balance them over the day will help keep glucose levels within target ranges.



Carb Counting

This is one of best ways to keep track of the total amount of carbs you eat at each meal and in a day. It is commonly recommended that most people have about 2-3 carbs per meal and 1-2 per snack. However, know that every BODY is different and working with your healthcare team can help you fine tune what best works for you.

1 Serving = about 15 grams of carbs.

Estimate or look online if a food label is unavailable.

Example

15-gram Carbohydrate Servings	
Starches	1 slice of bread
	1/3 cup cooked pasta or rice
	1/2 cup starchy vegetable (potatoes, beans, corn, or peas)
Fruit	1 small piece of fruit
	4 oz fruit juice
Milk	8 oz milk
	6 oz plain yogurt
Desserts	½ cup of ice cream
	2 Oreo cookies



Has your team worked with you already on finding your mealtime carb serving goals?

What changes have you already made with carbs at meals?

_____

_____

_____

What goal are you thinking of implementing?

_____

_____

_____

Carbohydrates

These include starches, fruit, milk and sweets. These are sometimes referred to as “bad” foods. Truth is, if we pay attention to healthy portion sizes, these foods are part of a healthy and balanced lifestyle. (Lists are not all inclusive)

Starches

1 serving = 15 grams of carbs

Healthy choices
- 1/3 cup brown rice
- 1/4 lg. sweet potato
- 1/2 cup mashed potato
- 1 small baked potato
- 1/2 cup beans/peas (cooked)
- 1/2 cup corn
- 3 cups popped popcorn
- 1/2 cup cooked oatmeal
- 3/4 cup dry cereal
- 1/2 cup bran cereal
- 1 slice whole grain bread

Less healthy
- 1/3 cup rice or pasta
- 1/4 large bagel
- 1/3 hamburger bun
- 1/2 English muffin
- 1/2 large biscuit
- 6 crackers
- 4” pancake or waffle
- 10 French fries
- 12-15 chips

Combo foods
- 1 cup soup
- 1 slice thin pizza
- 1/2 cup casserole
- 2”square lasagna
- 2-3 chicken strips

Fruit

1 serving = 15 grams of carbs

1 small piece
- Apple
- Pear
- Peach
- Orange

1 cup melon cubes
- Cantaloupe
- Honeydew
- Watermelon

1 cup berries
- Strawberries
- Blueberries
- Raspberries

Other fruit options
- 1/2 banana
- 15 grapes or cherries
- 1/2 cup canned fruit (light syrup or juice)
- 2 Tbsp. raisins
- 3-4 prunes
- 1/4 - 1/2 cup fruit juice

Sweets

1 serving = 15 grams of carbs

- 1/2 cup ice cream
- 1/2 ice cream bar
- 1/4 cup sherbet
- 1/2 doughnut
- 6 vanilla wafers
- 2 Oreo cookies
- 2” unfrosted brownie
- 3 graham cracker squares
- 3 peppermint candies
- 5 chocolate kisses
- 1/2 cup gelatin
- 1 small granola bar
- 1 popsicle
- 9 jellybeans

Milk

1 serving = 12 grams of carbs

- 1 cup whole milk
- 1 cup 2% milk
- 1 cup skim milk
- 6-8 oz. yogurt (varies by brand, check the label)

Milk alternatives
- 1 cup oat milk
- 1 - 1.5 cup soy milk
- 1 - 1.5 cup almond milk
- 1 cup coconut milk

(all vary by brand, check the label)



Non-Starchy Vegetables

- One serving is one cup raw.
- Average serving is less than 5g of carbs.
- Considered “free” foods.
- Aim for 3-5 servings per day.
- Make one of these raw.
- Can eat large volume without many calories or glucose spikes.
- High in fiber, vitamins and minerals.

- Asparagus
- Green beans
- Beets
- Broccoli
- Brussel sprouts
- Cabbage
- Carrots
- Cauliflower
- Celery
- Cucumbers
- Greens
- Lettuce
- Mushrooms
- Okra
- Onions
- Peppers
- Radishes
- Squash
- Spinach
- Tomatoes
- Turnips
- Zucchini



Proteins

Talk to your healthcare team to find your recommended targets for a day. Then aim to reach that dividing between meals and snacks.

Serving Sizes and grams of protein

3 oz chicken/beef/fish:
- ~21–26 grams of protein

1 egg:
- ~6–7 grams of protein

1/2 cup cooked lentils/beans:
- ~8–10 grams of protein

- Beans/legumes
- Beef
- Bison
- Cheese
- Chicken
- Cottage cheese
- Eggs
- Fish
- Pork
- Shellfish
- Tofu
- Turkey
- Venison



Fats

One serving can vary, but typically one tablespoon. These are calorie dense. Don't over use healthy fats.

Monounsaturated (healthiest option)

- Canola oil
- Olive oil
- Peanut oil
- Nuts
- Avocado
- Olives

Polyunsaturated

- Soybean oil
- Corn oil
- Sunflower oil
- Margarine
- Mayonnaise
- Salad dressing
- Pumpkin seeds
- Sunflower seeds

Saturated

- Butter
- Coconut oil
- Cream cheese
- Lard
- Shortening
- Sour cream

Trans Fats (unhealthiest option)

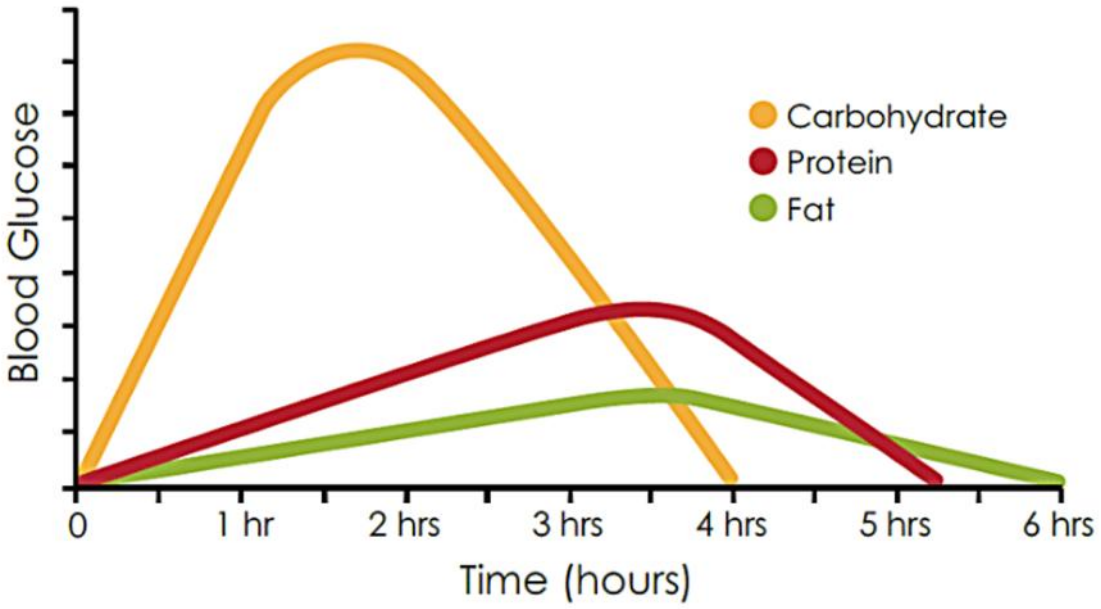
Used in commercial baked goods, fried foods, packaged snacks.

Check label ingredients for "hydrogenated".



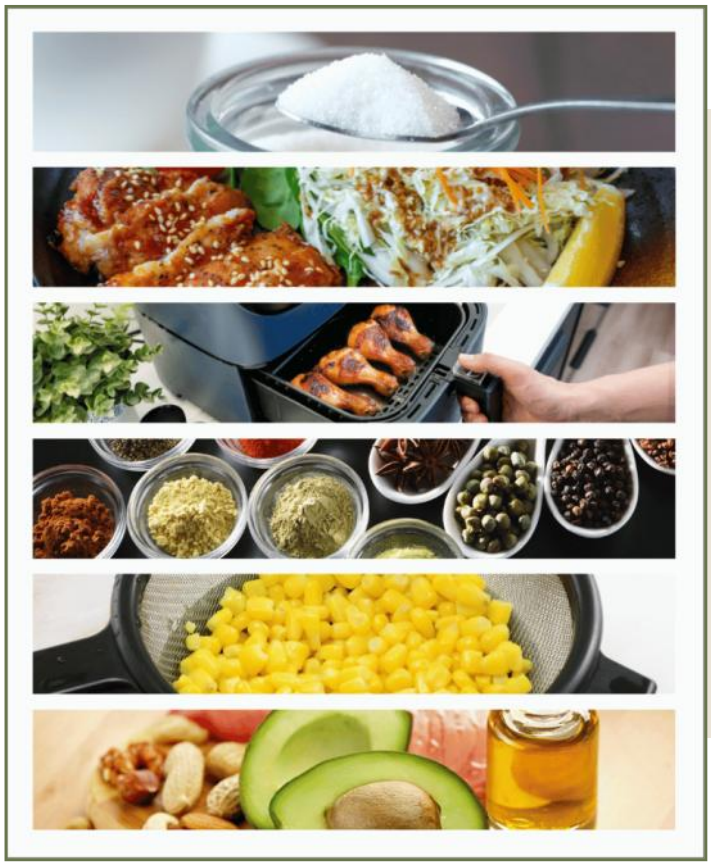
Effects of Macronutrients on Glucose Over Time

Combining these can prevent glucose spikes. Find your balance.



Heart Healthy

- Daily added sugar:
  - Men: Aim for less than 37.5g (~9tsps).
  - Women: Aim for less than 25g (~6tsps).
  - Read labels!
- Limit processed foods to reduce sodium. Aim for 2,300 mg/day.
- Air fry or bake instead of deep fry.
- Use herbs and spices to flavor.
- Drain and rinse canned foods to reduce salt content.
- Choose heart healthy fats.



Fiber

- Slows digestion and absorption of carbs, preventing glucose spikes after eating.
- Enhances immune system by supporting gut health.
- Sources are vegetables, beans, fruit and whole grains.
- How much fiber in a day? MORE!
  - Men should have 30-38g per day.
  - Women should have 21-25g per day.
- Try to consume evenly with meals.
- Choose foods with at least 3 grams of total fiber per serving.

Fiber

As stated earlier, fiber is an important part of eating healthy. This graph gives amounts for typical fiber amounts with portions of common foods.

Food Item	Serving	Fiber Grams
Apple (with skin)	1 medium	4.5
Bagels	4" bagel	2
Bananas, raw	1 banana	3.1
Barley (pearled), cooked	1/2 cup	3
Beans (navy), cooked	1/2 cup	9.5
Beans (pinto, black), cooked	1/2 cup	7.7
Blackberries, raw	1/2 cup	3.8
Bread, white	1 slice	0.5
Bread, whole-wheat	1 slice	3
Broccoli, cooked	1/2 cup	2.5
Brussels sprouts cooked	1 cup	4.5
Carrots, cooked	1/2 cup	2.3
Carrots, raw	1 carrot	2
Celery, raw	1 stalk	0.6
Chickpeas (garbanzo beans), cooked	1/2 cup	6.2
Grapefruit (pink and red), raw	1/2 grapefruit	2
Grapefruit (white), raw	1/2 grapefruit	1.3
Green beans, cooked	1/2 cup	2
Green peas cooked	1 cup	9
Lentils, cooked	1/2 cup	7.8
Lettuce (green leaf), raw	1 cup	0.7
Lettuce (romaine), raw	1 cup	1.2
Mixed veggies (frozen), cooked	1/2 cup	4
Oat bran, cooked	1/2 cup	2.8
Oranges, raw	1 orange	3.1
Pear, raw	1 pear	5.1
Peas (frozen), cooked	1/2 cup	4.4
Potato (with skin), baked	1 potato	4.4
Raspberries, raw	1/2 cup	4
Rice (brown), cooked	1/2 cup	1.7
Rice (white, long-grained), instant	1/2 cup	0.5
Sweet corn (on the cob), cooked	1 ear	1.8

Recommended Diabetes Eating Patterns

- **Mediterranean Style:** Focuses on eating whole foods, while using healthy fats like olive oil. Limits red meat and sweets.
- **Low Carb:** Cuts back on foods high in starches and sugars. Eat more protein and healthy fats.
- **Low Fat:** Limits foods that are high in fats. It encourages lean proteins, fruits and vegetables.
- **Vegetarian:** Cuts out meats and focuses on plant foods. Can still eat dairy and eggs.
- **Vegan:** Like vegetarian, but also cuts out dairy, eggs and honey.
- **Dietary Approach to Stop Hypertension (DASH):** Rich in fruits, vegetables and low-fat dairy while keeping sodium very low.

What are you doing already to adjust your eating pattern?

Are you already finding ways to include your favorite foods? How?

Mediterranean Style Eating

Not a restrictive, calorie-counting diet, but rather a way of life based on traditional food cultures of areas where people live long healthy lives. Focuses on fish, whole, plant-based foods, healthy fats and physical activity.

Vegetables	Beans/Whole Grains	Protein and Seafood	Fruit
• Focus on minimal processing and additions when cooking. • Choose different colored vegetables to ensure a variety of nutrients.	• Limit refined grains. • Choose whole grains, beans, nuts and seeds.	• Choose fish high in omega-3's. • Include lean poultry, eggs, and lower fat cheese.	• Eat a wide variety of whole fruits. • Replace process sweets with fruit.



Water

Consume adequate amounts daily.



Oils

Choose monounsaturated fats.



Yogurt

Consider adding low/nonfat to our daily menu.



Fish	Oils	Nuts, Beans, Seeds & Leg-	Vegetables	Fruits	Grains	Herbs & Spices
Make fish a choice 2-3 times a week.	Choose unsaturated fat sources.	Try to eat 3-6 servings per week.	Choose 3 or more servings per day.	Choose 3 or more per day.	Choose whole grains 2-3 servings per day.	Use in place of salt to season foods.

Low Carb (<130 g) or Keto (<50 g)

- Challenge is long term sustainability.
- Effective in reducing A1C short term less than 6 months with little to no difference in comparison to other eating patterns beyond one year compared to doing nothing.
- Keto is known to increase the LDL cholesterol compared to Mediterranean diet.
- Use caution if taking SGLT 2 inhibitor (-flozins) because of the risk of ketoacidosis with normal blood glucose (euglycemia) and Diabetes Ketoacidosis (DKA) potential.

Safe Fasting

- Fasting has not been shown to have any significant health benefits. (ADA)
- **Intermittent Fasting:** Using an "eating window" of time each day. Can help to plan for meals during a certain time. Not considered superior to continuous calorie restriction eating.
- **Religious Fasting:** Certain medications such as insulin, sulfonylurea or GLP-1s can increase your risk of hypoglycemia. Speak with your medical team weeks before fasting to make potential adjustments.
- **Monitor Glucose:** Check more often as recommended.
- **Keep Hydrated:** Drink lots of water before and during fasting.
- **Stay Active:** Light exercise.
- **Plan Post Fast:** Balance your plate and gradually increase calories and carbs.

Fasting can be safe with a good plan.

What eating plan have you been considering?

Sodium

- Recommend less than 2,300 mg of sodium (one teaspoon) per day.
- Food label: 10% daily value of sodium or greater is a significant source.
- Limiting salt is important for blood pressure and kidney health.
- African Americans, Hispanic and older adults may be more sensitive to sodium.
- Color of salt means it has different minerals, but is still sodium. Don't overuse.



Drinks

Non-Alcohol



- Water is recommended over sugar-sweetened beverages.
- Non-sweetened or artificially-sweetened beverages are an option for people with diabetes and prediabetes.
- Sweeteners may be used in moderation to sodium.

Alcohol



- World Health Organization declares any amount of alcohol is unsafe.
- Increases risk of low blood glucose.
- May increase blood glucose levels if it contains carbohydrates.
- Adds empty calories and promotes weight gain.
- If you choose to drink alcohol, be sure to include a meal with carb foods.

Great resource for more information is https://ownyourlimits.org/

Food Labels

- Serving size.
- Servings per container.
- Total Carbohydrate—also reflects starches and more.
- Dietary Fiber.
- Serving size does not always equal the portion size.
    - Serving size is the volume that is listed on the label.
    - Portion size is what you actually eat.



No Sugar Added Foods

- "Natural" sugars are included in the total carbohydrate grams.
- 4 oz juice box vs 16 oz bottle.





Sugar Substitutes

- May be used for weight control.
- May be used as a tool to encourage drinking more water.
- Have no calories although effectiveness for long term weight loss is not clear.
- Most do not raise blood glucose levels.
- Sugar alcohols raise glucose levels by half of regular sugar. May cause diarrhea in excess.
- Research shows does not cause cancer.

Examples

- Allulose.
- Aspartame.
- Erythritol (sugar alcohol).
- Monk Fruit.
- Saccharin.
- Stevia.
- Sucralose.

Sugar Free Products

- Sugar free doesn't mean carb free.
- Zero sugar candy vs regular candy:
  - Serving sizes.
  - Total carbs.
  - Dietary fiber.
  - Total sugar.
- No sugar added foods: "Natural" sugars are included in the total carbohydrate grams.
- Remember these are treats. Check labels and stick to portion sizes—and you may find your favorites fit just as well.

Snack size chocolate bar label.

Nutrition Facts
about 11 servings per container
Serving size 2 pieces (26g)

Amount per serving
Calories 130

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 4.5g	**24%**
Trans Fat 0g	
Cholesterol 5mg	**2%**
Sodium 20mg	**1%**
Total Carbohydrate 16g	**6%**
Dietary Fiber <1g	**2%**
Total Sugars 15g	
Includes 13g Added Sugars	**25%**
Protein 2g	

Vitamin D 0.4mcg 2% • Calcium 50mg 4%
Iron 0.9mg 6% • Potassium 100mg 2%

*The % Daily Value 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.

Same candy and brand, sugar free version.

Nutrition Facts
about 4.5 servings per container
Serving size 4 pieces (32g)

Amount per serving
Calories 130

	% Daily Value*
Total Fat 10g	**13%**
Saturated Fat 6g	**30%**
Trans Fat 0g	
Cholesterol 5mg	**2%**
Sodium 5mg	**0%**
Total Carbohydrate 20g	**7%**
Dietary Fiber 2g	**7%**
Total Sugars 0g	
Includes 0g Added Sugars	**0%**
Sugar Alcohols 16g	
Protein 1g	

Vitamin D 0mcg 0% • Calcium 240mg 20%
Iron 1.3mg 8% • Potassium 60mg 2%

*The % Daily Value 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.

Weight Management

Small changes to eating and activity can make a big difference.

5% total body weight loss may:

- Improve insulin sensitivity.
- Reduce need for medications.
- Improve blood pressure.
- Improve metabolism.



Key Points

- Create balanced meals using the Plate method.
- Carbohydrates raise blood glucose but should not be avoided.
- Carbohydrate intake may be individualized.
- Starches, sweets, milk and fruit have carbohydrates.
- Sugar substitutes are safe in moderation.
- Fiber is encouraged.
- Nutrition Facts labels provide important information on serving sizes, carbohydrate grams and sodium content.
- A Mediterranean style of eating may help to improve blood glucose, body weight and blood pressure.
- Achieving a healthy weight can improve glucose management and improve insulin sensitivity reducing the need for medications.

Resources

- Diabetes Demystified
- Healthy Coping
- Healthy Eating
- Being Active
- Taking Medications
- Monitoring
- Reducing Risk
- Tools & Solutions

Core DSMES Sessions:

These core sessions contain vital information toward understanding how diabetes effects the body and all the recommended health behaviors to support self-management.

Link to recorded sessions:
warfighterwellness.org/diabetes

Online:

American Diabetes Association: https://diabetes.org/food-nutrition

Center for Disease Control and Prevention: https://www.cdc.gov/diabetes/healthy-eating/index.html

National Institute of Diabetes and Digestive and Kidney Diseases: https://www.niddk.nih.gov/health-information/diabetes/overview/healthy-living-with-diabetes

Notes:

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If you have any concerns about the diabetes education you receive:

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Director, Education Recognition Program
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Arlington, VA 22202

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