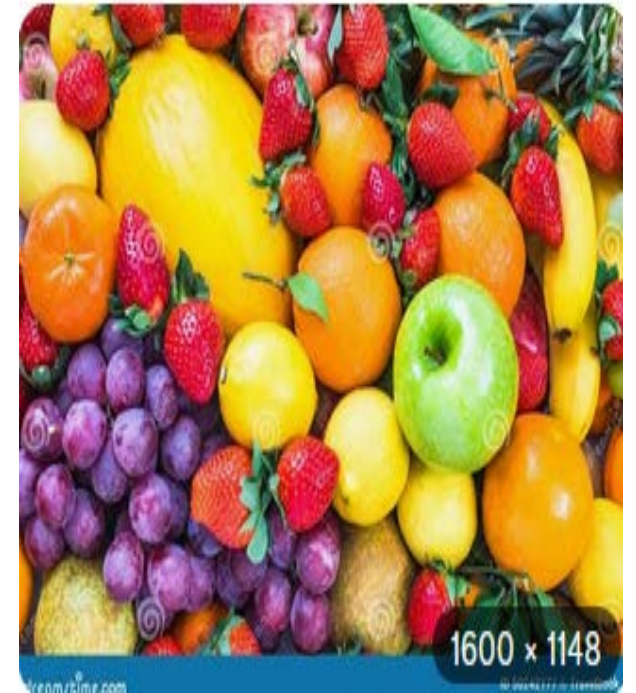




1280 × 720

Sugar, Oh My!

Cheryl Mehta, RDN, LD, CDCES



1600 × 1148



1249 × 700

Make a Fresh Start

Get 1% Better Every Day

“Habits are the compound interest of self-improvement. Getting 1% better every day counts for a lot in the long run.”

Atomic Habits by James Clear

Inflammation
Insulin Resistance
Diabetes

Challenges of Nutrition Studies
and Research



MEDITERRANEAN DIET

Mediterranean Plan: Plenty of Fresh and Minimally Processed Plant Foods

- Vegetables and fruit
- Whole grains & starchy beans and peas
- Nuts and seeds
- Olive Oil
- AND Fish

Not All Plant Foods are Healthy

What Examples Can You Think of?

Benefits of Mediterranean Diet

Decreased Risk of:

- Cardiovascular disease
- Some cancers
- Parkinson's
- Type 2 Diabetes
- Rheumatoid arthritis
- Nonalcoholic liver disease

Harvard Health Publishing, "Guide to Mediterranean Diet," Restivo, J. 2/6/26. Accessed 9/15/26

Benefits of Mediterranean Diet

Closely Following This Eating Plan May Lower Risk for Dementia

- Per *Environmental Nutrition*, “Med Diet May lower Dementia Risk,” Volume 46, Issue 7, July, 2023,
BMC Medicine, March 2023

The diabetes portion plate



How to divide your plate

The diabetes portion plate is an easy-to-use tool that can help you visualize your portion sizes and make smart, healthy choices about what you eat.

Nonstarchy vegetables

Fill 1/2 of your plate with nonstarchy vegetables, such as tomatoes, green beans, peppers, zucchini, artichokes, and broccoli.



1/2

Use a 9-inch plate



1/4

Whole grains and starches

Fill 1/4 of your plate with grains and starchy foods, such as whole-grain breads, high-fiber cereal, brown rice, whole-grain pasta, and dried beans.

1/4



Protein

Fill 1/4 of your plate with protein, such as skinless chicken, lean cuts of beef or pork, fish, shrimp, eggs, and tofu.



Provided as an educational resource by NIDDK

Eat More Low Carb (non starchy) Vegetables

- Bell peppers
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Green Beans
- Greens
- Salad Greens
- Spinach



What Can you Eat
More of?

Carbohydrates = Starch + Sugar

Starchy Foods

- Breads
- Rice and pasta
- Crackers
- Starchy beans and peas
- Potatoes
- Oatmeal, oats

Sugar

- Sweets & desserts
- Sugar-sweetened beverages
- Regular soda, sweet tea
- Fruit juice (**Natural sugar**)
- Fruit (**Natural sugar**)
- Milk & Yogurt (**Natural sugar**)
- Table sugar, honey, agave maple syrup, brown sugar

Carbs Can Contain Both Starch and Sugar

- **Cakes & Cookies**
- **Pie**
- **Desserts**

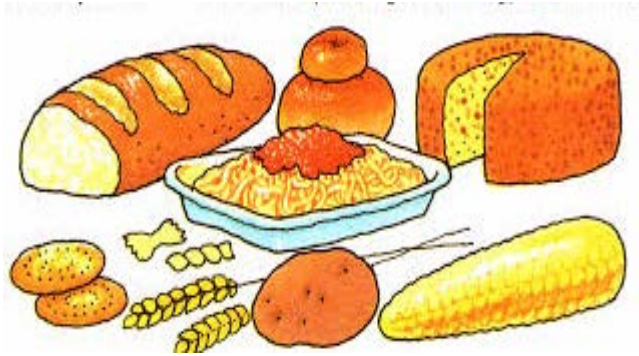
Carbohydrates



Starchy Foods
Fruits and Fruit Juice
Milk and Yogurt
Sweets and Desserts



Blood
Sugar



Foods Containing Added Sugar

- Sweets & desserts
- Sugar-sweetened beverages
- Regular soda, sweet tea
- Fruit juice (**Natural sugar**)
- Fruit (**Natural sugar**)
- Milk & Yogurt (**Natural sugar**)
- Jams
- Sugar-added oatmeal
- Sugar-added Yogurt
- Sugar sweetened cereals
- Soup
- Bakery products
- Many processed foods
- Table sugar (both white and brown), honey, agave, maple syrup

True or False?

Honey & Table Sugar Have the
Same Amount of Sugar

Excess Added Sugar Effects Your Health

Heart Disease

- Diets high in processed added sugars: desserts, sugar-sweetened beverages, fruit juice



- Increase risk for heart attack and stroke

Excess Added Sugar Effects on Your Health

- High blood pressure, inflammation, weight gain, diabetes, and fatty liver disease
- Liquid beverages “not as satisfying” as solid foods
- Easy to drink too much

Choose Snacks with Less Added Sugar

- Plain Greek Yogurt with fresh fruit and nuts
- Fresh fruit and nuts
- Apple with Mozzarella cheese stick
- Small banana or apple with peanut butter
- Popcorn and mozzarella cheese stick
- Kind or Cliff Thins (more processed)

Desserts With Less Added Sugar

- Layer sugar cone with whipped topping and unsalted nuts
- Cheerios with milk
- Home made peanut butter cookies
- Strawberry Oat Bars: www.californiastrawberries.com

When you Eat Desserts or Sweets

- Have a smaller portion
- Read serving sizes on food labels
- Cut back on how often you eat them

Limit intake of added sugars,
especially from processed foods
and Sugar-Added beverages

Which Contains the Most Added Sugar?



Fruit & Maple Oatmeal



Medium Iced Caramel
Coffee

Which contains the most added sugar?



Nutrition Facts

8 servings per container

Serving size 8 fl oz (240mL)

Amount per serving

Calories 110

% Daily Value*

Total Fat 0g **0%**

Saturated Fat 0g **0%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 5mg **0%**

Total Carbohydrate 27g **10%**

Dietary Fiber 0g **0%**

Total Sugars 25g

Includes 23g Added Sugars **46%**

Protein 0g

Vitamin D 0mcg 0%

Calcium 0mg 0%

Iron 0mg 0%

Potassium 40mg 0%

* 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.

1

2



Nutrition Facts

About 9 Servings Per Container

Serving Size

1 Cup (38g)

Amount Per Serving

Calories

150

% Daily Value *

Total Fat	2 g	2%
Saturated Fat	1 g	6%
Trans Fat	0 g	
Cholesterol	0 mg	0%
Sodium	290 mg	12%
Total Carbohydrate	33 g	12%
Dietary Fiber	< 1 g	3%
Total Sugars	16 g	
Includes Added Sugars	16 g	31%
Protein	2 g	
Vitamin D	0 mcg	0%
Calcium	0 mg	0%

Names for Sugar

- Cane sugar & cane juice
- Rice syrup
- Honey
- Corn syrup solids
- Invert sugar
- Malt syrup
- Fructose, glucose, maltose, dextrose
- Maple syrup

Food Labels

- Ingredients are listed from the most to the least

Ingredients in Captain Crunch

Ingredients

Active Ingredients: CORN FLOUR, SUGAR, OAT FLOUR,
BROWN SUGAR, PALM OIL, COCONUT OIL, SALT, REDUCED
IRON, YELLOW 5, NIACINAMIDE, YELLOW 6, THIAMIN
MONONITRATE, PYRIDOXINE HYDROCHLORIDE,
RIBOFLAVIN, FOLIC ACID, BHT (A PRESERVATIVE)Inactive



OREO SANDWICH COOKIES

Amount (%DV) per 34g (3 cookies)

Red indicates %DV is high.

Calories	160	<u>%DV</u>
Total Fat	7g	9%
Saturated Fat	2g	10%
Trans Fat	0g	
Cholesterol	0mg	0%
Sodium	130mg	6%
Carbohydrates	25g	9%
Dietary Fiber	<1g	2%
Total Sugars	14g	
Added Sugars	13g	26%
Protein	1g	

INGREDIENTS IN OREO COOKIE

Unbleached Enriched Flour, Sugar, Palm Oil, Soybean and/or Canola Oil, Cocoa (processed with alkali), High Fructose Corn Syrup, Baking Soda and/or Calcium Phosphate, Salt, Soy Lecithin, Chocolate, Artificial Flavor

- Unbleached Enriched Flour includes wheat flour, niacin, reduced iron, thiamine mononitrate (vitamin B1), riboflavin (vitamin B2), folic acid

Food Labels

Look at % DV (Daily Value)

1. Low = 5% or less
2. High = 20% or more

% DV (Daily Value)

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 240mg	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.	

Nutrition Facts

8 servings per container

Serving size 8 fl oz (240mL)

Amount per serving

Calories 110

% Daily Value*

Total Fat 0g **0%**

Saturated Fat 0g **0%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 5mg **0%**

Total Carbohydrate 27g **10%**

Dietary Fiber 0g **0%**

Total Sugars 25g

Includes 23g Added Sugars **46%**

Protein 0g

Vitamin D 0mcg **0%**

Calcium 0mg **0%**

Iron 0mg **0%**

Potassium 40mg **0%**

* 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.

1

2

FDA, "Daily Value on Nutrition and Supplement Facts Label," "The Nutrition Facts Label."

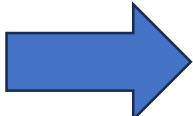
5 Ways to Reduce Added Sugars

1. Add cinnamon, dried fruit to plain oatmeal instead of using instant sugar-added oatmeal.
2. Look for ready-to-eat cereals with less added sugar
3. Buy unsweetened instead of sweetened applesauce
4. Try plain unsweetened yogurt - add fruit, nuts, instead of sugar-added yogurt
5. Drink black coffee (add small amount of sugar if needed) instead of sugar-added coffee drinks

Fructose

- Occurs naturally in fruit, honey, some vegetables
- Fruit contains other nutrients
- Fruit contains fiber → helps prevent spikes in blood sugar
- Fiber helps you feel full
- Eating whole fruits lowers risk of chronic disease

Fructose is Unhealthy If:

- Consumed from sugar sweetened beverages and processed foods
- Doesn't make you feel full  eat or drink too much
- Consumed in large amounts for a long time-especially from sugar sweetened beverages like soda & too much fruit juice

Alternatives to Sugar Sweetened Beverages

- Infused water – add cucumber, fresh mint, citrus, fruit
 - Let steep in refrigerator up to 24 hours (or buy the machine!)
- Add lemon juice or wedge to unsweet tea

Alternatives to Sugar Sweetened Beverages

- Vegetable juice
- Coffee with (regular) vanilla almond milk
- Honey Bush Tea (Numi is brand name)
- Low-fat milk or unsweetened almond milk

Diabetes and Carbohydrates

- You can eat carbohydrates
- Amount and type
- Spread carbohydrates throughout the day
- Too many carbohydrates at one meal = high blood sugar

Diabetes and Carbohydrates

- Sugar sweetened beverages increase blood sugar faster vs. solid foods. What are Examples?
- Processed high sugar foods contain more sugar, carbohydrates per bite



Diabetes and Cognitive Function

- Long term insulin resistance  cognitive decline similar to Alzheimer's
- Long term high blood sugar in adults
 linked to development of dementia

Reducing Risk for Alzheimer's

- Keep blood sugars in target range
- Healthy eating pattern - Mediterranean Diet
- Physical activity
- Be socially active
- Use your brain (puzzles, learn new things)
- Protect your brain, wear helmet when needed

Environmental Nutrition, Volume 47, Issue 4, April 2024



MEDITERRANEAN DIET

Peanut Butter Cookies

1 cup peanut butter

½ cup granulated sugar

½ cup instant nonfat dry milk powder

1 egg

Mix all ingredients together. Roll into 1- 1 ½" balls and place on ungreased cookie sheet. Flatten by criss crossing with a fork to 1/3" thickness. Bake at 350 degrees for 15 minutes or until lightly browned. Makes about 30 cookies.

3 grams sugar, 6 grams total carbohydrate per cookie

This contains added sugar but is less sugar per cookie than most cookies.

Homework

Bring a food label from home: amount of added sugar surprised you?

OR

Bring a food label from home that contains fat