

Healthy Eating for Lifestyles Changes - Part 1



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Class Topics

- I. More on Carbohydrate Consistency
- II. Understanding Food labels
- III. Carbohydrate Counting

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What's in it for You?

Going deeper on understanding carbohydrates and making eating choices will impact

- ✓ How you feel
- ✓ Your blood sugar management
- ✓ Helps manage or prevent complications of diabetes

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Eating Carbohydrates Consistently

Eating a consistent amount of carbohydrates per meal/snack help with

- ✓ Promotes healthy blood sugars
- ✓ Helps manage weight
- ✓ Reduces hunger
- ✓ Helps manage or prevent complications of diabetes
- ✓ Eating similar amounts meal to meal
(ex. Eating similar amounts of carbohydrates at dinner)

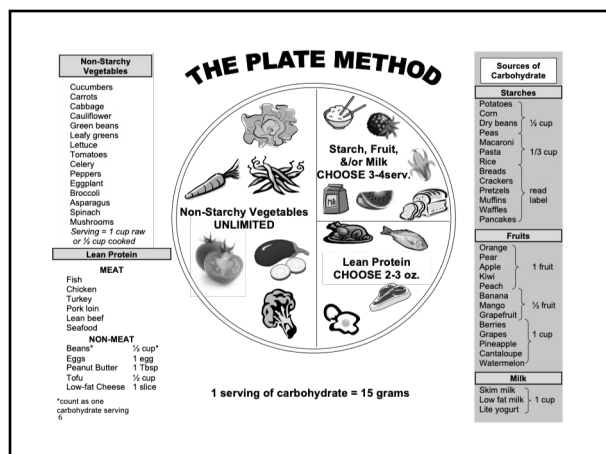
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More on Eating a Consistent Amount of Carbohydrate

1 serving of carbohydrate = 15 grams of carbohydrate
(Carbohydrate amounts should be individualized.)

* Consult a Registered Dietician for an individualized diet plan.

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Detailed list: Fruits



Fruits: 15 gr carb
 1 small apple, orange, pear,
 4 fresh apricots
 7 dried apricot halves
 1 small banana or 1/4 large banana
 1/4 cup blueberries or raspberries
 1/3 of a whole cantaloupe
 1 cup melon cubes/balls
 15 cherries
 15 grapes
 2 figs
 2 plums
 1/2 cup canned "light" fruit
 1 large kiwi
 1/4 cup fresh pineapple
 1/2 of a whole mango or papaya
 3 medium prunes
 2 tbsp raisins
 1 1/4 cup strawberries
 1 1/4 cup watermelon cubes/balls

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Detailed lists: Breads

Breads: 15 gr carb
 1 slice of bread (any kind)
 6 small breadsticks (4" long)
 1/2 small bagel or 1/4 deli bagel
 1/2 English muffin
 1/2 hot dog or hamburger bun
 1 matzo ball
 1 pancake or waffle (5")
 1/2 pita bread (6")
 1 small plain roll
 1 tortilla (6")
 1/3 cup bread stuffing
 1 small muffin



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Detailed list: Cereals & Pasta



Cereals: 15 gr carb
 1/2 cup bran cereal
 1/2 cup granola
 1/2 cup cooked cereal
 3/4 cup dry cereal (plain)
 1/2 cup sweetened cereal
 1 1/4 cup puffed cereal

Pasta/Grains: 15 gr carb
 1/3 cup cooked pasta
 1/3 cup cooked rice
 1/2 cup cooked grains

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Detailed list: Beans/Starchy Vegetables

Vegetables/Beans: 15 gr carb

- ½ cup cooked beans
- 1/3 cup baked beans
- ½ cup corn or green peas
- 1 small baked potato
- ½ cup cooked potatoes
- 10 - 15 French fries
- ½ cup spaghetti sauce



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Detailed lists: Dairy



Milk/Yogurt: 15 gr carb

- 10 oz skim, 1%, 2% or whole milk
- ½ cup evaporated milk
- 1/3 cup dry milk powder
- 1 cup plain yogurt

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Resources for Carbohydrate Counting

- Handout "Carbohydrate Food List"
- Online Food tracker
 - FatSecret,
 - Loselt
 - Myfitness Pal
- Look at **Total Carbohydrate** on food label
 - May consider fiber

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Food Label



Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	16%
Saturated Fat 1g	2%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	32%
Total Carbohydrate 37g	74%
Dietary Fiber 4g	8%
Total Sugars 12g	24%
Includes 10g Added Sugars	20%
Protein 3g	6%
Vitamin D 2mcg	40%
Calcium 260mg	26%
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.

Total Carbohydrate:
Includes fiber, starch and sugar (natural & added)

Fiber: Those carbs not digested fully so little impact on blood sugar.
Goal 25 grams per day.

Total Sugars: Include natural sugars from milk and fruit and added sugars

Added Sugars: Added simple sugar

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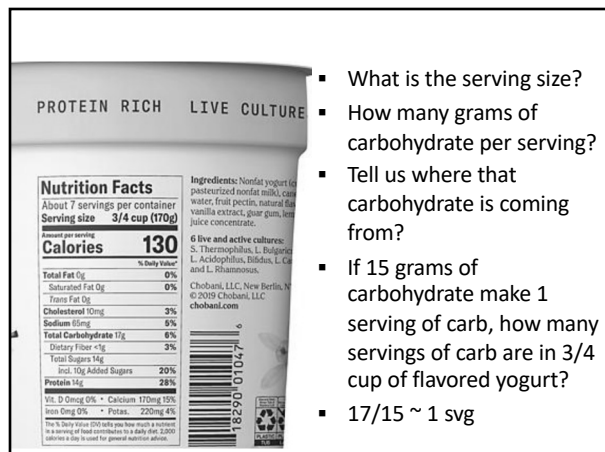
Food Label: Mom's Raisin Bran



Nutrition Facts	
Serving size	1 cup (55g)
Amount per serving	
Calories	170
% Daily Value*	
Total Fat 1g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0g	
Monounsaturated Fat 0g	
Cholesterol 0mg	0%
Sodium 240mg	10%
Total Carbohydrate 43g	16%
Dietary Fiber 8g	30%
Total Sugars 15g	
Incl. 8g Added Sugars	15%
Protein 5g	10%

- What is the serving size?
- How many grams of carbohydrate per serving?
- Tell us where that carbohydrate is coming from?
- If 15 grams of carbohydrate make 1 serving of carb, how many servings of carb are in 1 cup of cereal?
- $43/15=2.9$ or 3 svgs

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Nutrition Facts	
About 7 servings per container	
Serving size	3/4 cup (170g)
Amount per serving	
Calories	130
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 10mg	2%
Sodium 65mg	13%
Total Carbohydrate 12g	6%
Dietary Fiber <1g	2%
Total Sugars 14g	
Incl. 10g Added Sugars	20%
Protein 14g	28%
Vit. D 0mcg 0% • Calcium 170mg 15% Iron 0mg 0% • Potas. 220mg 4%	

Ingredients: Nonfat yogurt (pasteurized nonfat milk, water, fruit pectin, natural flavors, vanilla extract, guar gum, lemon juice concentrate).

6 live and active cultures: S. Thermophilus, L. Bulgaricus, L. Acidophilus, Bifidus, L. Casei and L. Rhamnosus.

Chobani, LLC, New Berlin, WI © 2019 Chobani, LLC chobani.com

- What is the serving size?
- How many grams of carbohydrate per serving?
- Tell us where that carbohydrate is coming from?
- If 15 grams of carbohydrate make 1 serving of carb, how many servings of carb are in 3/4 cup of flavored yogurt?
- $17/15 \sim 1$ svg

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Nutrition Facts	
Serving Size 2 Pieces (34g)	
Servings Per Container 5	
Amount Per Serving	
Calories 160	Fat Calories 120
% Daily Value	
Total Fat 13g	20%
Saturated Fat 7g	35%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 110mg	5%
Potassium 65mg	2%
Total Carbohydrate 18g	6%
Dietary Fiber 4g	16%
Sugars 0g	
Sugar Alcohols 12g	
Protein 2g	3%
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 2%
Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
Calories	2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 25g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Potassium	3,500mg 3,500mg
Total Carb	300g 375g
Dietary Fiber	25g 30g
Protein	50g 65g

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Breakfast example #1 - answers

- 1 cup cooked oatmeal = 2
- ¾ cup fresh blueberries = 1
- 1 packet artificial sugar = 0
- ¼ cup walnuts = 0
- 1 cup skim milk = ~1



~4 Total Carbohydrate Servings

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Breakfast example #2 - answers

- 2 eggs = 0
- 1 turkey sausage patty = 0
- 2 slices toast = 2
- 1 tablespoon margarine = 0
- 1 small banana = 1
- 1 cup orange juice = 2



5 Total Carbohydrate Servings

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Lunch example #1 - answers

- 1 cup tomato soup = 1
- Grilled ham & cheese sandwich (2 slices bread, 2 slices cheese, 2 slices ham, 2 tsp. margarine) = 2
- ½ cup coleslaw (made with cabbage, carrots, green peppers, mayo, and vinegar) = 0
- 1 cup melon = 1
- 1 large oatmeal-raisin cookie = 1-2
- Tea with Splenda = 0



5-6 Total Carbohydrate Servings

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Lunch Example #2 - answers

- Hamburger or veggie patty = 0
- 1 whole wheat hamburger bun = 2
- 1 cup raw veggies = 0
- 1 container light yogurt = 1
- Water = 0



3 Total Carbohydrate Servings

20

Dinner example #1 - answers

- 5-oz. salmon filet, grilled with spices = 0
- 1 medium (6 oz.) baked sweet potato with 2 teaspoon margarine = 2
- 10 stalks of asparagus pan sautéed in canola oil = 0
- 1 medium fresh peach with ½ cup ice cream and 1 tablespoon chopped pecans = 2
- Water = 0



4 Total Carbohydrate Servings

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Dinner Example #2 - answers

- 1 cup pasta = 3
- 1/2 cup spaghetti sauce = 0 or 1 if store-bought
- 3 meatballs = 0
- 2 tablespoons parmesan cheese = 0
- Green salad = 0
- 1 breadstick = 1
- 1 Lindt dark chocolate truffle = 0 (3 = 15gm) (5 grams of Carb)
- Iced Tea = 0



4-5 Total Carbohydrate Servings

Health Eating For Lifestyle Changes-Part 2



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Program Resources

Thank you for registering for our Diabetes Tele-education Program.

Program handouts and forms can be found for each class by clicking on the class name to the right. These materials were developed for use by the diabetes educators providing instruction to persons participating in the tele-education broadcasts.

The program materials have been developed by our Center in conjunction with the UVA Diabetes Education and Management Program. Program materials are the intellectual property of these groups.

<https://med.virginia.edu/vcdpe/diabetes-tele-education-programs/educational-resources/>

Menu

- ABOUT
- LIFESTYLE COACH TRAINING
- TELE-EDUCATION PROGRAM
 - Class Descriptions & Recordings
 - 2020 Class Schedule
 - Marketing Resources
 - Registration Form
 - How To Participate
 - Program Resources
 - The Basics Of Diabetes
 - Nutrition Basics
 - Diabetes Self-Management Skills
 - Healthy Eating Lifestyle Changes

2

Class Topics

- I. Reducing Post-meal Glucose Spikes
- II. SMART Goals

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After Meal Glucose Levels

Measurement of blood glucose level after eating

Goal is < 140-180 - 2 hours after a meal

Why is it important?

- Blood glucose variability has been linked to heart disease
- 2-hr high blood glucose may contribute to coronary heart disease

Belli, et al, 2023 Acta diabetologica

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After Meal Elevated Glucose

❖ Short-term Effects

- Fatigue
- Impaired concentration
- Moodiness
- Increased hunger
- Elevated A1C

❖ Long-term Effects

- It is an independent risk factor for cardiovascular disease.

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Minimize Post-Meal Glucose Rise

- A. Timing of insulin
- B. Activity after a meal
- C. Timing of largest meal
- D. Eating carbs last
- E. Resistant starch
- F. Adding vinegar
- G. Glycemic index/load

Scheiner, G. & Perry, M. (2022). Here's looking at you, postprandial! Strategies for managing postmeal glucose levels. *Lifescan - Diabetes Institute*. <https://www.lifescandiabetesinstitute.com/>

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Timing of Insulin



Discuss timing of insulin with your healthcare provider.

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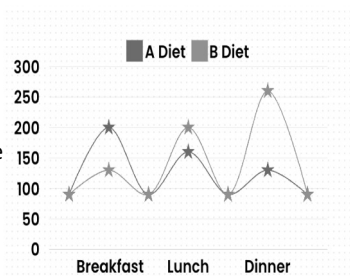
Activity After a Meal



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Meal Timing

Eating the largest meal in the morning and smaller meal in the evening decreased the glucose response throughout the day.



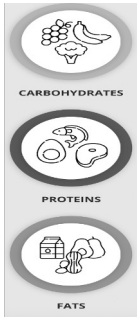
Jahromi, et al., 2015, Diabetes 54, 912-919 <https://doi.org/10.1002/di.23251>

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Sequence of Macronutrients

Having a small portion of protein or fat before a meal induces the release of certain hormones that slow gastric emptying and stimulate insulin secretion before carbohydrates are eaten.

This allows the body to use the meal insulin more efficiently and avoids high glucose spikes.

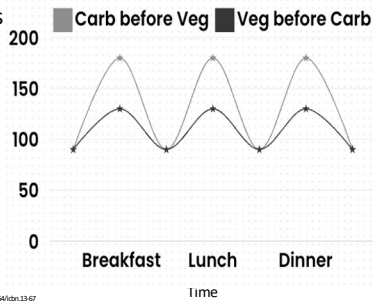


Scheiner & Perry, 2002. *Diabetes Institute*. www.diabetesinstitute.com

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Carbs First vs Carbs Last

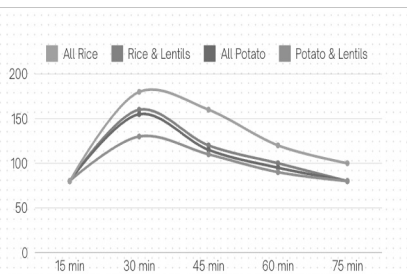
Eating vegetables before eating carbohydrates helps the insulin to be more effective in keeping blood glucose levels stable.



Ismail, et al., 2014. *Clin Biochem Med*. 2014;54(3):7-11. doi:10.33644/cbm.13-67

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What You Eat Matters



Eating Carbs along with a protein or fat will slow down absorption and decrease the blood glucose rise.

Morooka et al., 2018. *The Journal of Nutrition*. doi: <https://doi.org/10.1093/ajcn/128.1.100>

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Choose Low Glycemic Index

(Low)	Average	Fast (High)
Pasta	Fruit	Breads/Crackers
Legumes	Juice	Salty Snacks
Salad Veggies	Pizza	Potatoes
Dairy	Soup	Rice
Chocolate	Cake	Cereals
		Sugary Candies

Scheiner & Perry, 2022. *Lifescan - Diabetes Institute* www.lifescan diabetesinstitute.com

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Resistant starch

- Carbohydrates have the most substantial influence on blood sugar. Cooling rice after cooking causes the starch to become less absorbable and reduces the carbohydrate available for digestion.

Post-meal glucose response after test meals

	Fresh Rice	Cooled Rice
Max Glucose	198 mg/dL (185-210 mg/dL)	178 mg/dL (169-196 mg/dL)
Max Glucose Increase	70 mg/dL (45-84 mg/dL)	48 mg/dL (27-64 mg/dL)

Shirahata, T. et al. *Nutrition and Diabetes* 2022. 12:21 doi:10.1038/s41387-022-00296-9

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Addition of Vinegar



- Studies have shown that adding a small amount of vinegar* to food can blunt the postmeal glucose rise. Lower PH foods and drinks delay postmeal glucose rise.

*Avoid if you have heartburn

Scheiner & Perry, 2022. *Lifescan - Diabetes Institute* www.lifescan diabetesinstitute.com

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Set Your Goal

Create your SMART Goal

➤ **SPECIFIC:** Give the who, what, when, where, and how of your goal

➤ **MEASURABLE:** Establish set criteria for measuring your progress

➤ **ATTAINABLE:** Instead of vowing to cook a healthy meal seven nights a week, shoot for one or two more than what you currently

➤ **REALISTIC:** Make sure your goal is something that you are willing and able to work toward

➤ **TIMELY:** Set a deadline for when you will have achieved your goal

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Set Your Goal

Choose one of these ideas or write down 1 or 2 things you will do for the next few weeks. Remember that little changes in your eating can make a big difference in your blood sugar.

☐ I will go for a walk after dinner 3 nights per week x 2 weeks.

☐ I will eat my largest meal in the morning and a small meal for dinner x 2 weeks.

☐ I will eat the vegetables before carbohydrates for 2 meals daily.

☐ I will decrease my carbohydrate portions and monitor the effect on my glucose.

☐ Other _____

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THANK YOU FOR ATTENDING TODAY’S SESSION

Please visit the VCDPE website 1-Minute Survey

<https://www.surveymonkey.com/r/2XZSYRV>

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