

Module 5
Carbohydrate



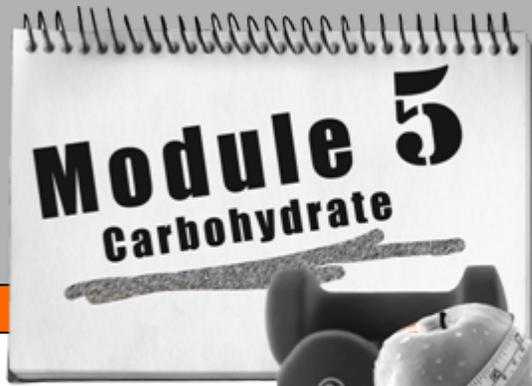
Being Choosy About Carbs



Colorado Department
of Public Health
and Environment

*Based upon the 2005
Dietary Guidelines
for Americans*





Being Choosy About Carbs

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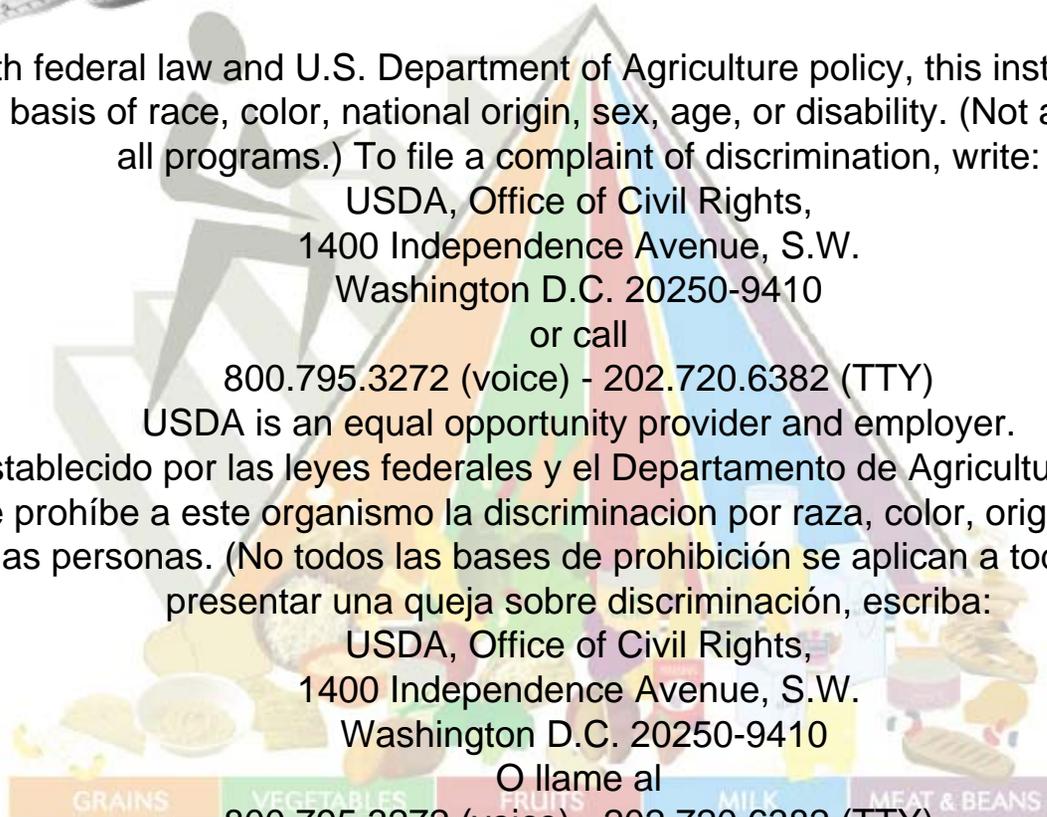
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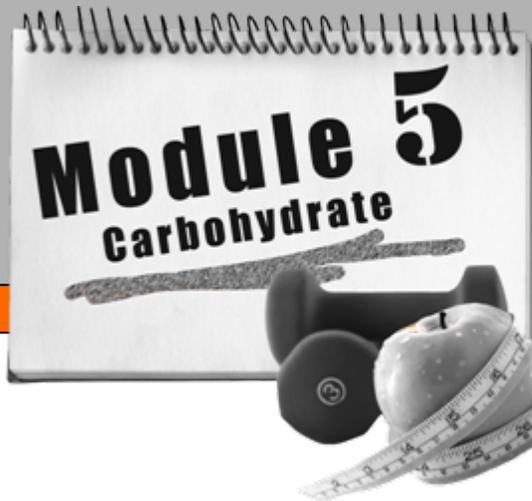
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Being Choosy About Carbs

Team Nutrition Statement

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Today's Discussion

- What is a carbohydrate?
- What's so great about fiber?
- How do I know if a food or drink is high in sugar?
- What carbohydrates give the best nutrition?
- How do I make smart carb choices?



Are There “Bad” Carbohydrates?

There are NO bad foods

- There are bad DECISIONS about how much we eat
- “Everyday” vs. “Sometimes” foods



Natural and Added Sugars

- Many foods contain sugars naturally, like fruit & juice
- Sugars are sugars
- What comes with the sugars?



Fabulous Fiber



The Payoff for Choosing Fiber

- **Avoiding Chronic Disease:**
 - Heart disease
 - Type 2 diabetes
 - Colon cancer
 - Diverticulitis
- **Achieving:**
 - Weight control
 - Feeling better
 - Longer, healthier life!



How Much Is Fiber Enough?

- ~14 g per 1000 calories
- 28 g for the “average” 2000 calorie diet
- Can anyone eat that much fiber?



How Can You Eat That Much Fiber?

- Choose whole fruits & vegetables over juice
- Eat the skin of cleaned fruits and vegetables
- Choose whole grain rice, breads and cereals
- Eat nuts for snacks
- Eat cooked beans



How Much Fiber Is In...?

Foods	g per serving	Foods	g per serving
Fruits	2-3	Juice	1/2
Colorful vegetables	2-3	Potatoes	2
Whole grains	2-3	Processed breads	1
Nuts and seeds	4	Chips	0
Legumes	3-4		

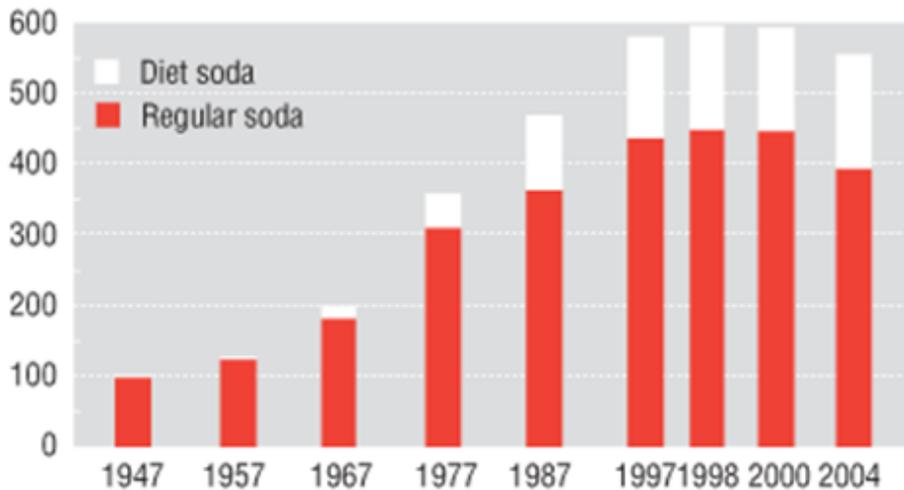
What's the Skinny On Sugar?

- U.S. Consumption:
 - 20 tsp per day
 - 142 pounds per year
 - 20% of calories consumed by teenagers is sugar



It's Partly What We Drink

Figure 1
Annual soft drink production in the United States
(12-oz. cans/person)

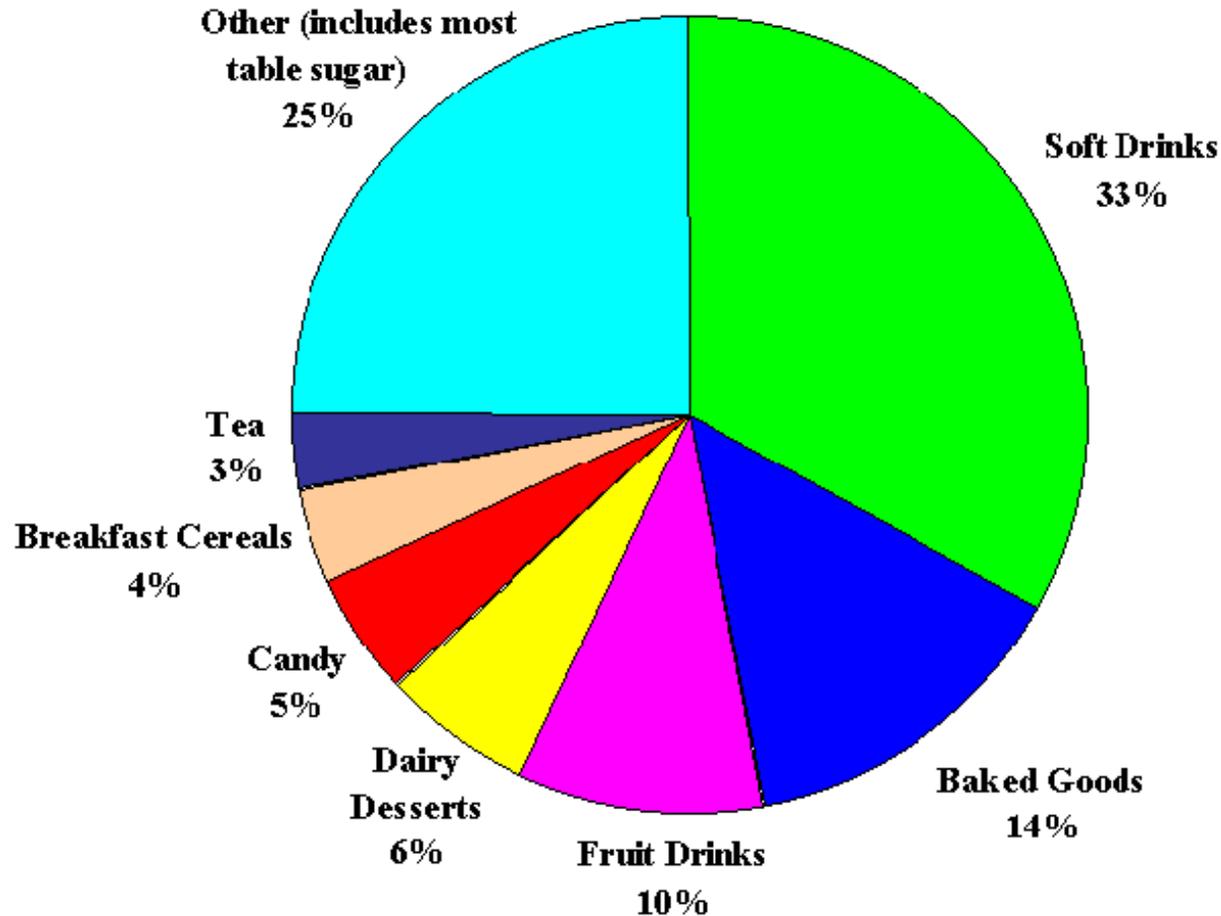


Sources: USDA Economic Research Service (1947–87); Beverage Digest (1997–2004).

12 ounce Pepsi® = 10 tsp
8 ounces lemonade ~ 7 tsp



And It's Partly What We Eat



Source: *Where Added Sugars Come From*. Center for Science in the Public Interest. Available at www.cspinet.org/reports/sugar/sugarorigin.html. Used with permission.

What's Wrong With Sugar?

- Nothing—until you get too much
- High calorie intake
- Diet low in nutrients
- Weight gain
- Dental caries



Get Label Able!

Nutrition Facts

Serving Size 1 cup

Servings Per Container 9

Amount Per Serving

Calories 110

Calories from Fat 15

% Daily Value*

Total Fat 2g 3%

Saturated Fat 0g 0%

Polyunsaturated Fat 0.5g

Monounsaturated Fat 0.5g

Cholesterol 0 mg 0%

Potassium 95mg 3%

Sodium 280 mg 12%

Total Carbohydrate 22g 7%

Dietary Fiber 3g 11%

Soluble Fiber 1g

Insoluble Fiber 2g

Sugars 1g

Protein 3g

Vitamin A 10% • Vitamin C 10%

Calcium 4% • Iron 45%

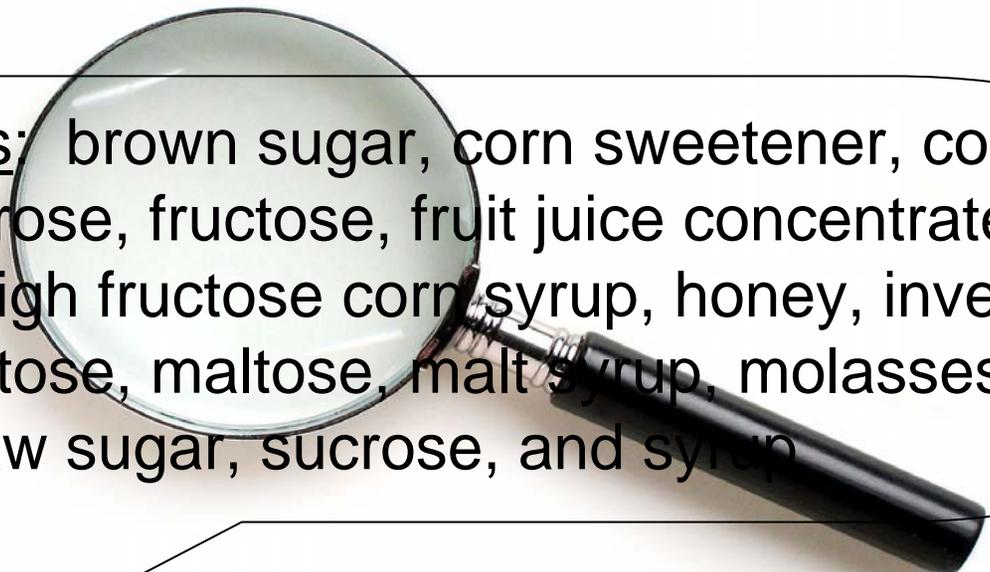
* Percent Daily Values are based on a 2,000 calorie diet. Your values may be higher or lower, depending on your calorie needs:

Calories: 2,000 2,500

- Be aware of calories, carbs, fiber and sugars in foods by reading labels.



Get Label Able!



Ingredients: brown sugar, corn sweetener, corn syrup, dextrose, fructose, fruit juice concentrates, glucose, high fructose corn syrup, honey, invert sugar, lactose, maltose, malt syrup, molasses, raw sugar, sucrose, and syrup

Learn how to detect added sugars in ingredient lists

How Much Sugar is OK?

- 10 tsp per day
- Think of foods and drinks with added sugars as “sometimes foods” rather than “everyday foods”



Make Smart Choices

- Focus on fruits & vegetables
- Choose beverages packed with nutrients
- Be choosy—snacks “count” in smart nutrition
- Fill up on fiber from whole grains



Make ½ Your Grains Whole!

Whole grain kernel

Bran

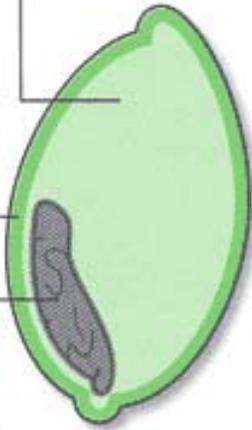
"Outer shell" protects seed
Fiber, B vitamins, trace minerals

Endosperm

Provides energy
Carbohydrates, protein

Germ

Nourishment for the seed
Antioxidants, vitamin E, B vitamins



What are “whole” grains?

How can you tell if a product is whole grain?



Let's Compare Whole Grains & Enriched Grains

100 Percent Whole-Grain Wheat Flour		Enriched, Bleached, All-Purpose White Flour
339.0	Calories, kcal	364.0
12.2	Dietary fiber, g	2.7
34.0	Calcium, mg	15.0
138.0	Magnesium, mg	22.0
405.0	Potassium, mg	107.0
44.0	Folate, DFE, µg	291.0
0.5	Thiamin, mg	0.8
0.2	Riboflavin, mg	0.5
6.4	Niacin, mg	5.9
3.9	Iron, mg	4.6



Source: U.S. Department of Agriculture, Agricultural Research Service. 2004. USDA National Nutrient Database for Standard Reference, Release 17. Nutrient Data Laboratory Home Page. Available at <http://www.nal.usda.gov/fnic/foodcomp>.

Whole Grains Commonly Consumed in the U.S.

- Barley
- Brown rice
- Buckwheat
- Bulgur
- Millet
- Oatmeal & whole oats
- Popcorn
- Sorghum
- Spelt
- Whole wheat, corn & rye
- Whole grain pasta
- Wild rice



Don't Forget Legumes!

- **Chickpeas**
- **Pinto beans**
- **Kidney beans**
- **Black beans**
- **Garbanzo beans**
- **Soybeans**
- **Split peas**
- **Lentils**



Source: Maryland Cooperative Extension, University of Maryland.

Balancing Tools

- DASH into balance
- Focus on fruits, vegetables, low fat dairy, grains, nuts & seeds, lean cuts of protein, heart-healthy fats & oils, and snacks.
- <http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/index.htm>.



- Find your personal balance at www.MyPyramid.gov

DASH Eating Plan Basics

- **2½ c fruit**
- **2½ c vegetables**
- **7- 8 oz equivalents grains**
- **6 oz meat or beans or nuts**
- **2-3 c low fat dairy foods**
- **2-3 tsp oils**
- **2 tsp solid fats OR**
- **5 T added sugars per WEEK**

These amount are based upon a 2000 calorie diet. Fine tune this for your calorie level. Your intake will vary from day to day. These represent the averages to shoot for.



MyPyramid

STEPS TO A HEALTHIER YOU

Based on the information you provided, this is your daily recommended amount from each food group.

<p>GRAINS 6 ounces</p>	<p>VEGETABLES 2 1/2 cups</p>	<p>FRUITS 2 cups</p>	<p>MILK 3 cups</p>	<p>MEAT & BEANS 5 1/2 ounces</p>
<p>Make half your grains whole</p> <p>Aim for at least 3 ounces of whole grains a day</p>	<p>Vary your veggies Aim for these amounts each week:</p> <p>Dark green veggies = 3 cups</p> <p>Orange veggies = 2 cups</p> <p>Dry beans & peas = 3 cups</p> <p>Starchy veggies = 3 cups</p> <p>Other veggies = 6 1/2 cups</p>	<p>Focus on fruits</p> <p>Eat a variety of fruit</p> <p>Go easy on fruit juices</p>	<p>Get your calcium-rich foods</p> <p>Go low-fat or fat-free when you choose milk, yogurt, or cheese</p>	<p>Go lean with protein</p> <p>Choose low-fat or lean meats and poultry</p> <p>Vary your protein routine—choose more fish, beans, peas, nuts, and seeds</p>

Find your balance between food and physical activity

Be physically active for at least **30 minutes** most days of the week.

Know your limits on fats, sugars, and sodium

Your allowance for oils is **6 teaspoons a day.**

Limit extras—solid fats and sugars—to **265 calories a day.**

Your results are based on a 2000 calorie pattern.

Name: _____

This calorie level is only an estimate of your needs. Monitor your body weight to see if you need to adjust your calorie intake.

Smart Rules To Live By:

- Go for color & variety
- Make $\frac{1}{2}$ your grains whole
- Learn your labels
- Beverages count
- Get the most out of snacks
- Get active & get in balance

