

# Carbohydrates: Dietary Guidelines for Americans

# Carbohydrates

1. Sugars
2. Starch (complex)
3. Fiber (complex)

Total Carb = Sugars + Starch + Fiber



<b>Total Carbohydrate</b> <u>40g</u>	<b>13%</b>	<b>15%</b>
Dietary Fiber <u>6g</u>	<b>24%</b>	<b>24%</b>
Soluble Fiber 1g		
Insoluble Fiber 5g		
Sugars <u>0g</u>		
Other Carbohydrate <u>34g</u>		

**INGREDIENTS:** **WHOLE GRAIN WHEAT.** TO PRESERVE THE NATURAL WHEAT FLAVOR, BHT IS ADDED TO THE PACKAGING MATERIAL.

**KRAFT FOODS GLOBAL, INC.**  
**NORTHFIELD, IL 60093-2753 USA**



**Kraft Foods**



**posthealthyclassics.com**

**1-800-431-POST(7678) se habla español**

**EXCHANGE:** 2-1/2 Starch. Dietary Exchanges based on *Exchange Lists for Meal Planning* © 2003 by the American Diabetes Association and the American Dietetic Association.

Institute of Medicine  
Recommended % Calories- Adults

Carbohydrates

Protein

Fat

**45-65%**

**10-35%**

**20-35%**

Diets <45% Carbs or >35% Protein  
difficult to stick to, not healthy, no  
advantage weight loss/maintenance

# QUESTION

1. How many calories are in **300 grams** of carbohydrate?
2. What is this number as % of total daily calories\*

\*Use reference diet: **2000**  
calories/day

# ANSWER:

$$300 \times 4 \text{ calories/gram} = 1200 \text{ calories}$$

$$1200/2000 = 0.6 \times 100 = 60\%$$

# Carbs as % of total calories

- Varies depending upon your energy needs (**activity**)
- **Flexible**: acceptable range:

**45-65%** of total calories



# **Dietary Guidelines Recommendations**

**Fiber**

**25-28 grams/day**

# **Fiber: Good Sources**

- **Whole grain foods**
- **Fruits**
- **Vegetables**
- **Peas**
- **Beans**

# Fruit Juices (OJ)

- Not much fiber
- Some OK = beneficial nutrients/minerals
- **Best:** eat whole fruit (fresh, frozen, canned, dried)

Another way to look at carbs:

**Natural Carbohydrate**

**VS.**

**Added Sugars**

**Natural:**

**Fruits**

**Vegetables**

**Whole Grains**

**Milk Products (low fat)**

**Advantages:**

**Energy + Nutrients (vitamins,  
minerals)**

**↓ calories**

Added Sugars: “**added**” by food manufacturer, cooks, or you

**Examples:** soft drinks, candy, cakes, cookies, pies, fruit drinks, ice cream, sweetened yogurt, sweetened milk, cinnamon toast, honey nut waffles

## Plain Yogurt

### Nutrition Facts

Serving Size 1 container (226g)

Amount Per Serving

**Calories** 110 **Calories from Fat** 0

	% Daily Value*
<b>Total Fat</b> 0g	0 %
Saturated Fat 0g	0 %
Trans Fat 0g	
<b>Cholesterol</b> Less than 5mg	1 %
<b>Sodium</b> 160mg	7 %
<b>Total Carbohydrate</b> 15g	5 %
Dietary Fiber 0g	0 %
Sugars 10g	
<b>Protein</b> 13g	
Vitamin A 0 % • Vitamin C 4 %	
Calcium 45 % • Iron 0 %	

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

## Fruit Yogurt

### Nutrition Facts

Serving Size 1 container (227g)

Amount Per Serving

**Calories** 240 **Calories from Fat** 25

	% Daily Value*
<b>Total Fat</b> 3g	4 %
Saturated Fat 1.5g	9 %
Trans Fat 0g	
<b>Cholesterol</b> 15mg	5 %
<b>Sodium</b> 140mg	6 %
<b>Total Carbohydrate</b> 46g	15 %
Dietary Fiber Less than 1g	3 %
Sugars 44g	
<b>Protein</b> 9g	
Vitamin A 2 % • Vitamin C 4 %	
Calcium 35 % • Iron 0 %	

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



## Plain Yogurt - contains no added sugars

INGREDIENTS: CULTURED PASTEURIZED GRADE A NONFAT MILK, WHEY PROTEIN CONCENTRATE, PECTIN, CARRAGEENAN.

## Fruit Yogurt - contains added sugars

INGREDIENTS: CULTURED GRADE A REDUCED FAT MILK, APPLES, HIGH FRUCTOSE CORN SYRUP, CINNAMON, NUTMEG, NATURAL FLAVORS, AND PECTIN. CONTAINS ACTIVE YOGURT AND L. ACIDOPHILUS CULTURES.



# Added sugars: 3 strikes

**1. Cavities:** sugary food (mouth)  
tooth decay ← enamel ← acid ← bacteria

```
graph RL; bacteria --> acid; acid --> enamel; enamel --> tooth_decay; tooth_decay --- tooth;
```

**2. Calories:** but few **nutrients**  
(children cheated of nutrients)

**3. Weight gain:** ↑ added sugars  
↑ weight

# Liquid Calories

Americans: **22%** of total calories =  
**Beverages**

Many have **“added”** sugars

Read ingredients

Many people don't **“count”** liquid  
calories

Framingham Osteoporosis Study: Women drinking **3** cans or more of **cola/week**: lower hip bone density



# Problem with **food labels**

## **Sugars = Natural + Added**

(not separated)

### Quick Guide to %DV:

	% Daily Value*
<b>Total Fat</b> 12g	18%
Saturated Fat 3g	15%
<i>Trans</i> Fat 3g	
<b>Cholesterol</b> 30mg	10%
<b>Sodium</b> 470mg	20%
<b>Total Carbohydrate</b> 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
<b>Protein</b> 5g	
<b>Vitamins and Minerals</b>	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

# How to find “**added**” sugar: **READ INGREDIENTS**

## Food Label Key Words:

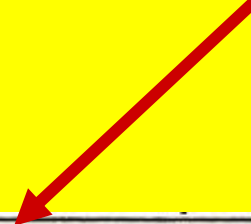
[other words for “added” sugar]

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, sugar, syrup





# Whole grain wheat



**INGREDIENTS:** WHOLE GRAIN WHEAT. TO PRESERVE THE NATURAL WHEAT FLAVOR, BHT IS ADDED TO THE PACKAGING MATERIAL.

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with **General Mills**  
**Whole Grain**



GOOD SOURCE OF FIBER



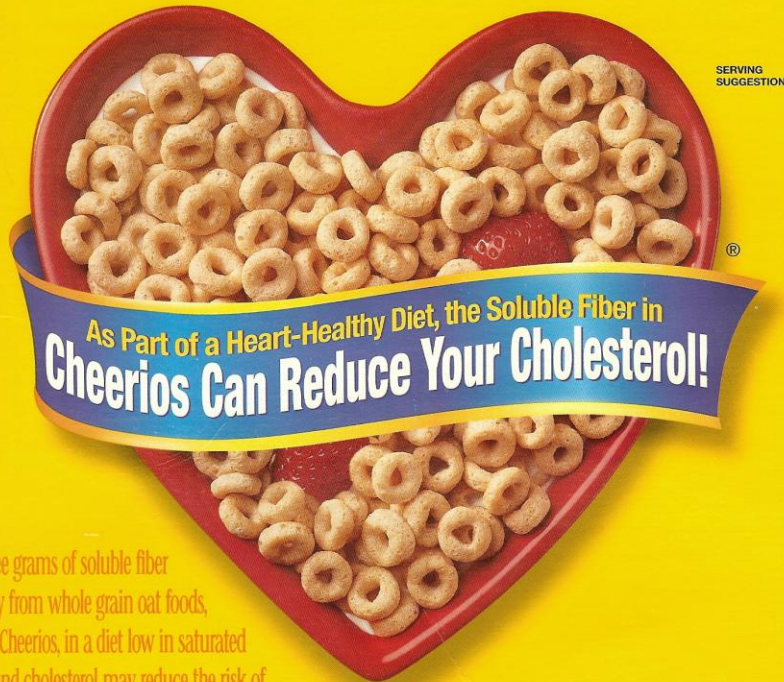
1g 1 GRAM OF SUGAR



110 110 CALORIES PER SERVING

# Cheerios®

Toasted Whole Grain Oat Cereal



SERVING SUGGESTION

Three grams of soluble fiber daily from whole grain oat foods, like Cheerios, in a diet low in saturated fat and cholesterol may reduce the risk of heart disease. Cheerios provides 1 gram per cup.

© NET WT 15 OZ (425g)

Corn starch Sugar

**INGREDIENTS:** WHOLE GRAIN OATS, MODIFIED CORN STARCH, CORN STARCH, SUGAR, SALT, CALCIUM CARBONATE, OAT FIBER, TRIPOTASSIUM PHOSPHATE, WHEAT STARCH. VITAMIN E (MIXED TOCOPHEROLS) ADDED TO PRESERVE FRESHNESS.

**VITAMINS AND MINERALS:** IRON AND ZINC (MINERAL NUTRIENTS), VITAMIN C (SODIUM ASCORBATE), A B VITAMIN (NIACINAMIDE), VITAMIN B<sub>6</sub> (PYRIDOXINE HYDROCHLORIDE), VITAMIN B<sub>2</sub> (RIBOFLAVIN), VITAMIN B<sub>1</sub> (THIAMIN MONONITRATE), VITAMIN A (PALMITATE), A B VITAMIN (FOLIC ACID), VITAMIN B<sub>12</sub>, VITAMIN D.

DISTRIBUTED BY **General Mills Cereals, LLC**  
GENERAL OFFICES, MINNEAPOLIS, MN 55440 USA  
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**Exchange:** 1½ Starch

Exchange calculations based on the *Exchange Lists for Meal Planning*.

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This package is sold by weight, not by volume. You can be assured of proper weight even though some settling of contents normally occurs during shipment and handling.



**American Heart Association**

Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.

*While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease.*



High fructose corn syrup

Sugar



**INGREDIENTS:** MILLET CORN, SUGAR, MALT FLAVORING, HIGH FRUCTOSE CORN SYRUP, SALT,  
**VITAMINS AND IRON:** IRON, NIACINAMIDE, SODIUM ASCORBATE AND ASCORBIC ACID (VITAMIN C), PYRIDOXINE HYDROCHLORIDE (VITAMIN B<sub>6</sub>), RIBOFLAVIN (VITAMIN B<sub>2</sub>), THIAMIN HYDROCHLORIDE (VITAMIN B<sub>1</sub>), VITAMIN A PALMITATE, FOLIC ACID, VITAMIN B<sub>12</sub> AND VITAMIN D. TO MAINTAIN QUALITY, BHT HAS BEEN ADDED TO THE PACKAGING.

**CORN USED IN THIS PRODUCT  
CONTAINS TRACES OF SOYBEANS.**



# **Dietary Guidelines Recommendations**

**Get most of your CARBS from:**

- Whole Fruits**
- Veggies**
- Whole Grains**
- Low-fat milk products**

**Limit: added sugars**