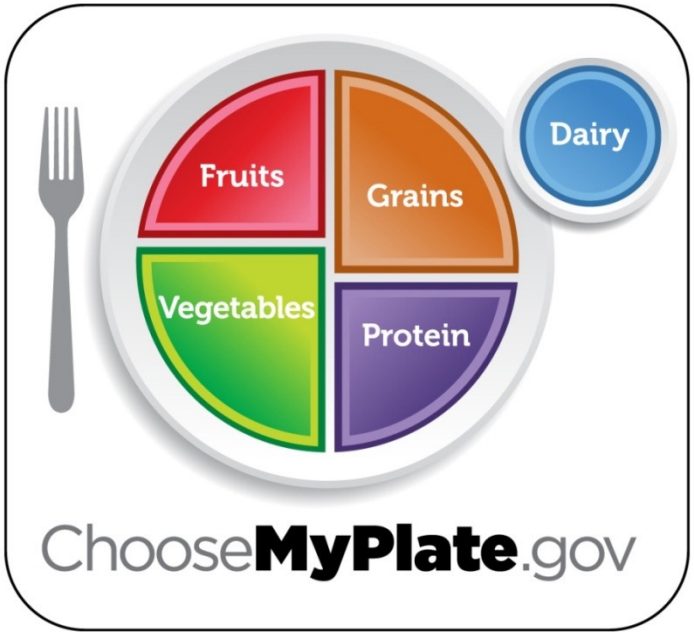
Your Health Matters: Nutritious Eating



5: The Basic Nutrients

Calories In

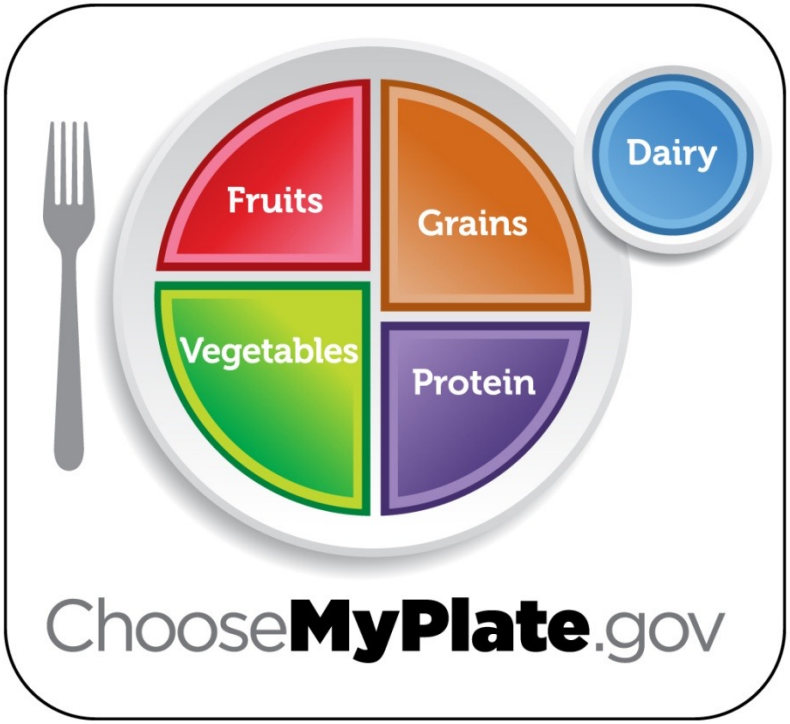
The Six Basic Nutrients

Macronutrients

- **Water**
- **Carbohydrates**
- **Proteins**
- **Fats**

Micronutrients

- **Vitamins**
- **Minerals**

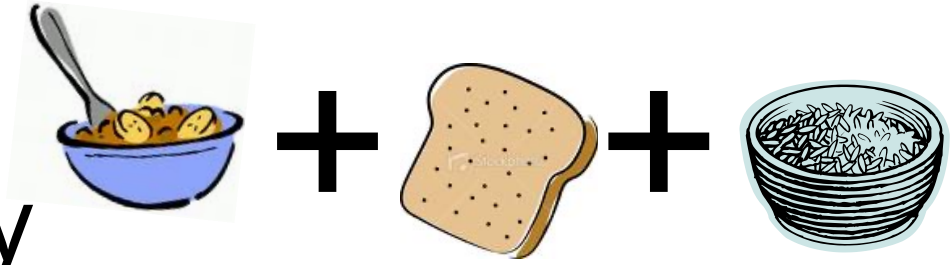


Water

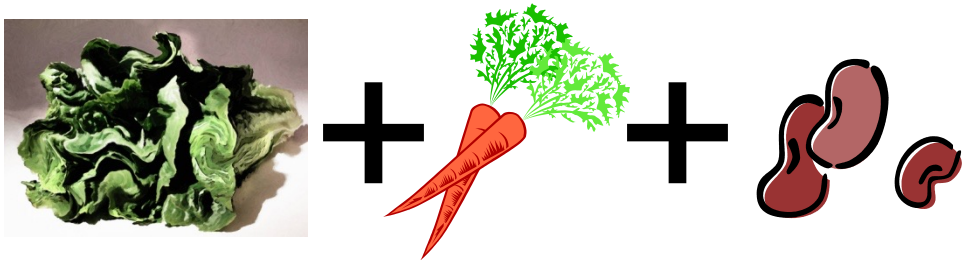
- Makes up 60-75% total body weight
- Vital to keep your “engines” running
- Intake met with food and beverages
- 8 to 10 cups/day

Carbohydrates

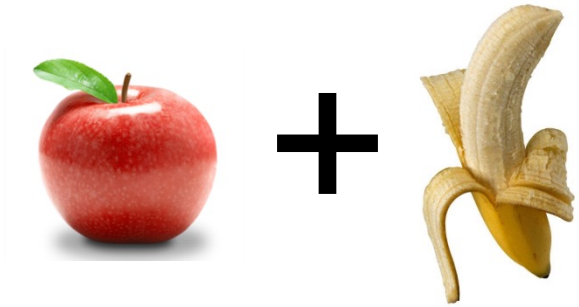
- Best “fuel” for the body = glucose
- Whole Grains
  - ➢ 3 servings/day



- Vegetables
  - ➢ 2 ½ cups/day



- Fruits
  - ➢ 2 cups/day



Nutritional Sciences, Thompson Learning Inc. 2007; MyPyramid.gov; American Cancer Society

Proteins

- Give structure for muscle, bone, skin
- Meat, poultry, fish, eggs, nuts, seeds, beans
  - 5 ½ ounces/day

- Dairy
  - 3 cups/day

Nutritional Sciences, Thompson Learning Inc. 2007; MyPyramid.gov

Fats (Lipids)

- Provide structure and store energy
- Make most of your fat sources from fish, nuts, vegetable oils
- Limit butter, margarine, lard, shortening

Nutritional Sciences, Thompson Learning Inc. 2007; MyPyramid.gov

GO SLOW WHOA and Fats

Unsaturated Fats

Go

- monounsaturated
- polyunsaturated
- ↓ heart disease risk

Saturated Fats

Slow

- mostly from animal sources
- not a necessary part of a healthy diet
- ↑ heart disease risk

Trans Fats (oils)

Whoa

- partially hydrogenated
- not necessary for your body
- ↑ heart disease + diabetes risk

Dietary Sources of Unsaturated Fats

Vegetable Oils: Olive, Canola, Peanut, Sesame, Sunflower
Avocado, Peanut Butter, Nuts and Seeds, Fatty Fish

Eat these!

Dietary Sources of Saturated Fats

Fatty Meats - Beef, Lamb, Poultry with skin
Full-fat Dairy Foods
(cheese, butter, ice cream, whole milk)
Coconut and Palm Oils
Cocoa Butter

Limit these!

Dietary Sources of *Trans* Fats

Stick Margarine, Some Tub Margarine, Shortening
Fried Foods, Some processed foods like baked goods and crackers

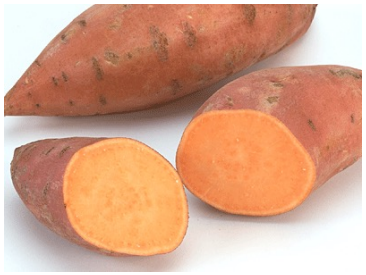
Avoid these!

Vitamins

- Vital for using energy from carbohydrates, protein, and fat
- A, B_6, B_{12}, C, D, E, K, Folate, Thiamin, Riboflavin, Niacin, Biotin, Pantothenic Acid
- Best to get through a whole foods diet… variety!

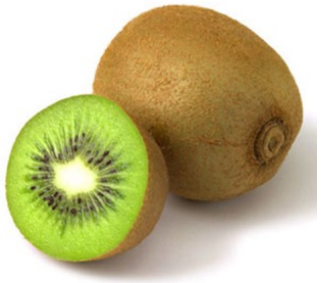
Fruits and Vegetables = great sources of vitamins

Vitamin A



Vitamin B6

Vitamin C



Minerals

- Give bones structure, carry oxygen in your blood, regulate heartbeat
- Calcium, Iron, Potassium, Sodium, Zinc, Phosphorus, Magnesium, and more
- Best to get through a whole foods diet… variety!

Fruits and Vegetables = great sources of minerals

Calcium

Iron

Potassium

Alcohol… *Not a nutrient!*

- Ethyl alcohol (ethanol)
- Intoxicating ingredient produced by fermentation of yeast, sugars, starches
- Central nervous system depressant

Centers for Disease Control and Prevention; Dietary Guidelines for Americans

Alcohol… *Not a nutrient!*

Frozen Margarita
12 oz = 750 cal

Sweet Wine
4 oz = 105 cal

Regular Beer
12 oz = 149 cal

Tequila Shot
1.5 oz = 100 cal

Rum
1 oz = 64 calories

Moderation = no more than 1 drink per day for women; no more than 2 drinks per day for men

Centers for Disease Control and Prevention; Dietary Guidelines for Americans

Dietary Guidelines

- ~50% Carbohydrates
- ~20% Protein
- ~30% Fat

USDA Dietary Guidelines for Americans and MyPyramid.gov

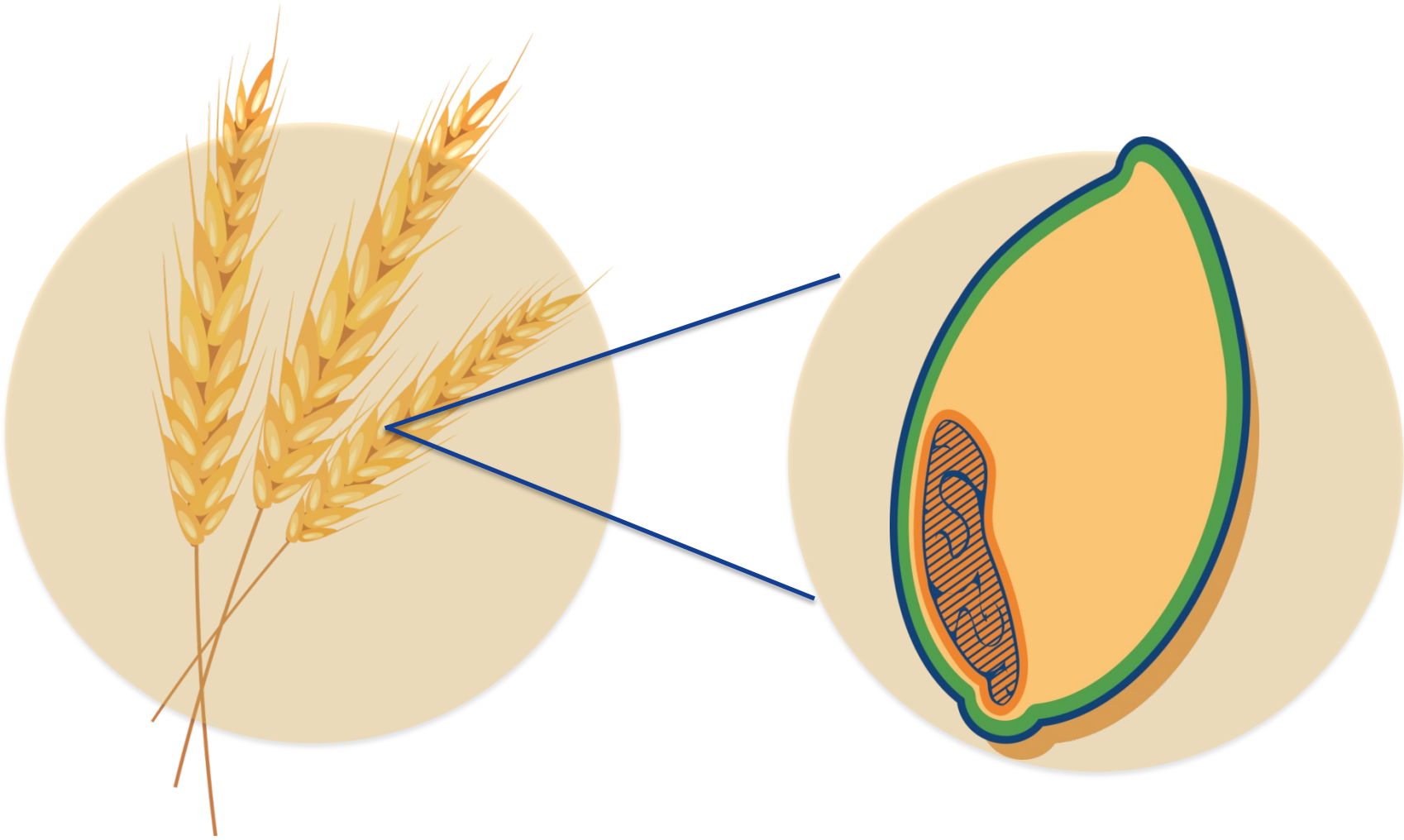
Eat a balanced whole foods diet
*especially **fruits** and **veggies***
to meet your basic nutrient needs

Challenge!

For the next week, drink 8 glasses of water per day and try one new fruit.

What is a grain?

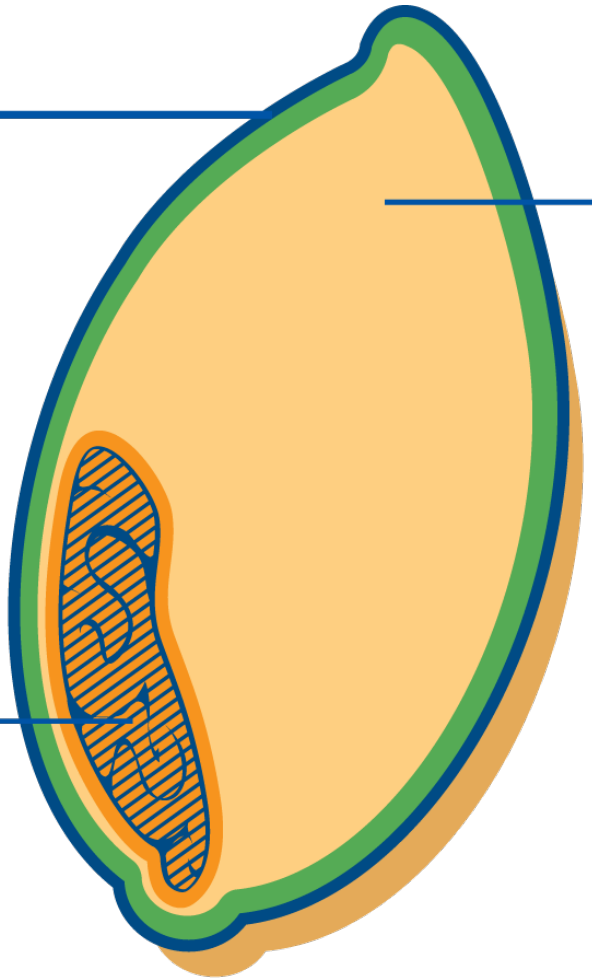
Grains are Seeds



Cereal Grass

Seed

Parts of a Grain

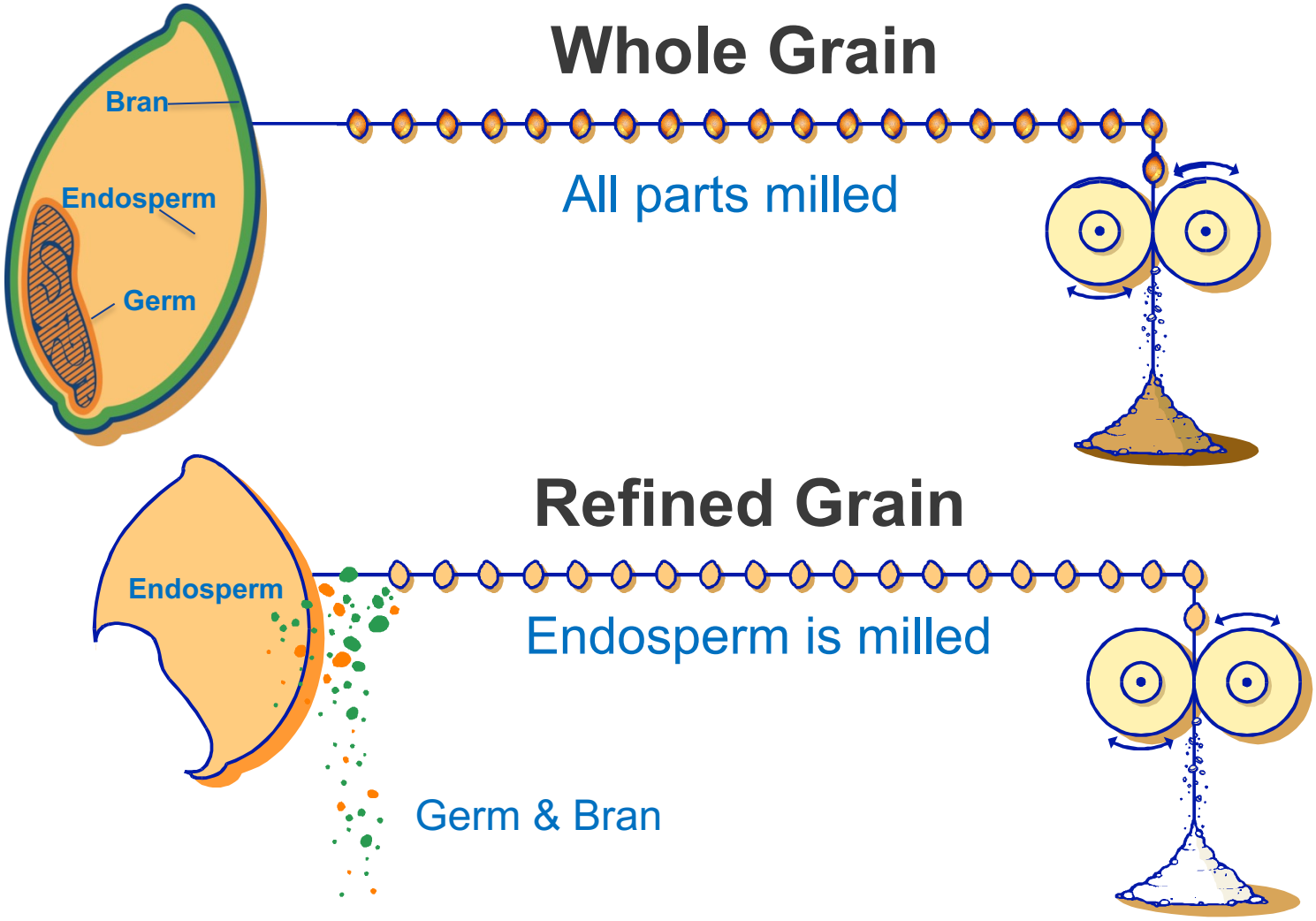


Bran
- "Outer shell" protects seed
- Fiber, B vitamins, traceminerals

Endosperm
- Provides energy
- Carbohydrates, protein

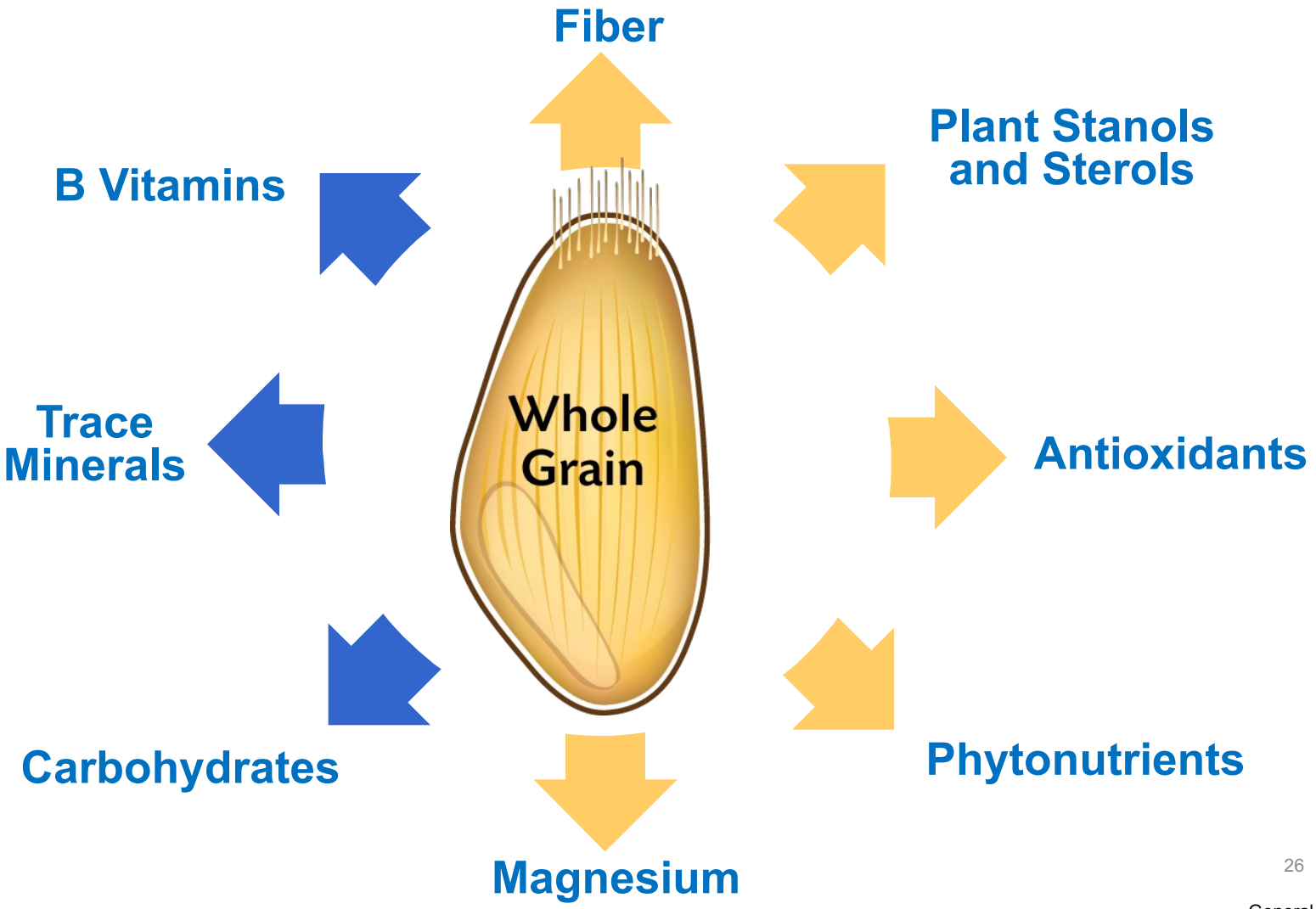
Germ
- Nutrient, Storehouse
- Antioxidants, vitamin E, B vitamins, healthy fats

Milling of Grains



What's so great about whole grains?

Whole Grains Have Grain Benefits PLUS More



Grains Contain Important Nutrients

Carbohydrates

B Vitamins

Trace Minerals

- Iron
- Zinc
- Copper

Dietary Fiber

Insoluble (whole grains)
Soluble (fruits and veggies)

- Helps move food through
- Helps control blood sugar
- Makes you feel full faster
- Lowers cholesterol

USDA Center for Nutrition Policy and Promotion; American Dietetic Association; General Mills, Inc

Whole Grain Health Benefits

- **Reduced risk of disease:**
  - Heart disease
  - Some cancers
  - Diabetes
- **Digestive health**
- **Weight control**

Whole Grain Fiber Facts

Whole Grain ≠ Fiber

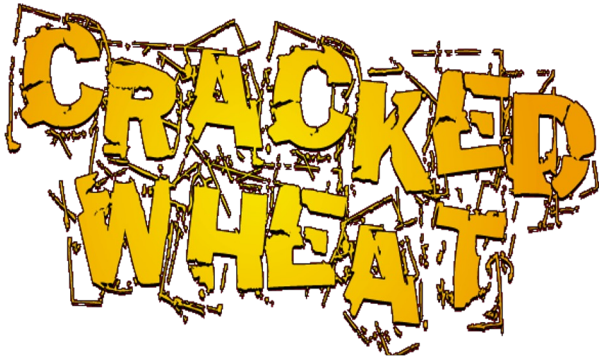
Whole Grain Doesn't Mean High Fiber

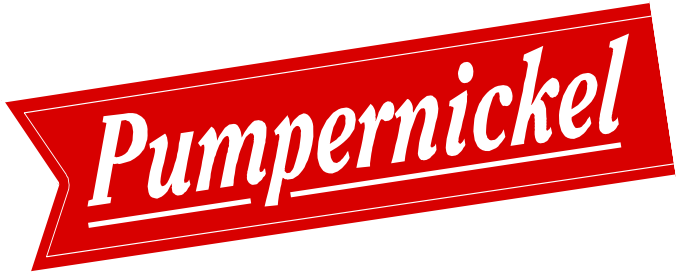
- Whole grain foods provide 1-4 grams of fiber per serving
- Contain the whole grain package

High Fiber Doesn't Mean Whole Grain

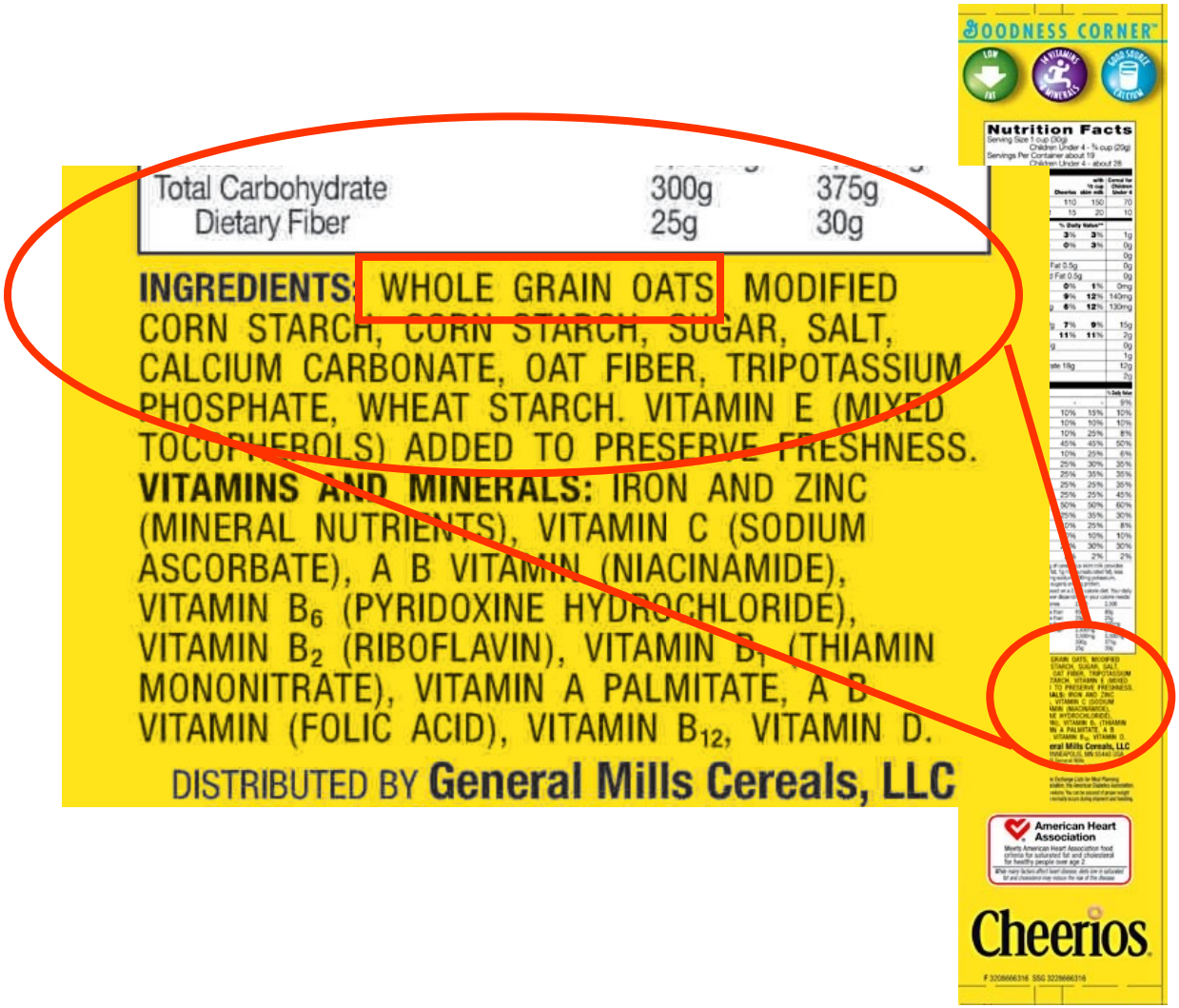
- Some high-fiber grain foods are not whole grain

Will the Whole Grain Please Stand Up?



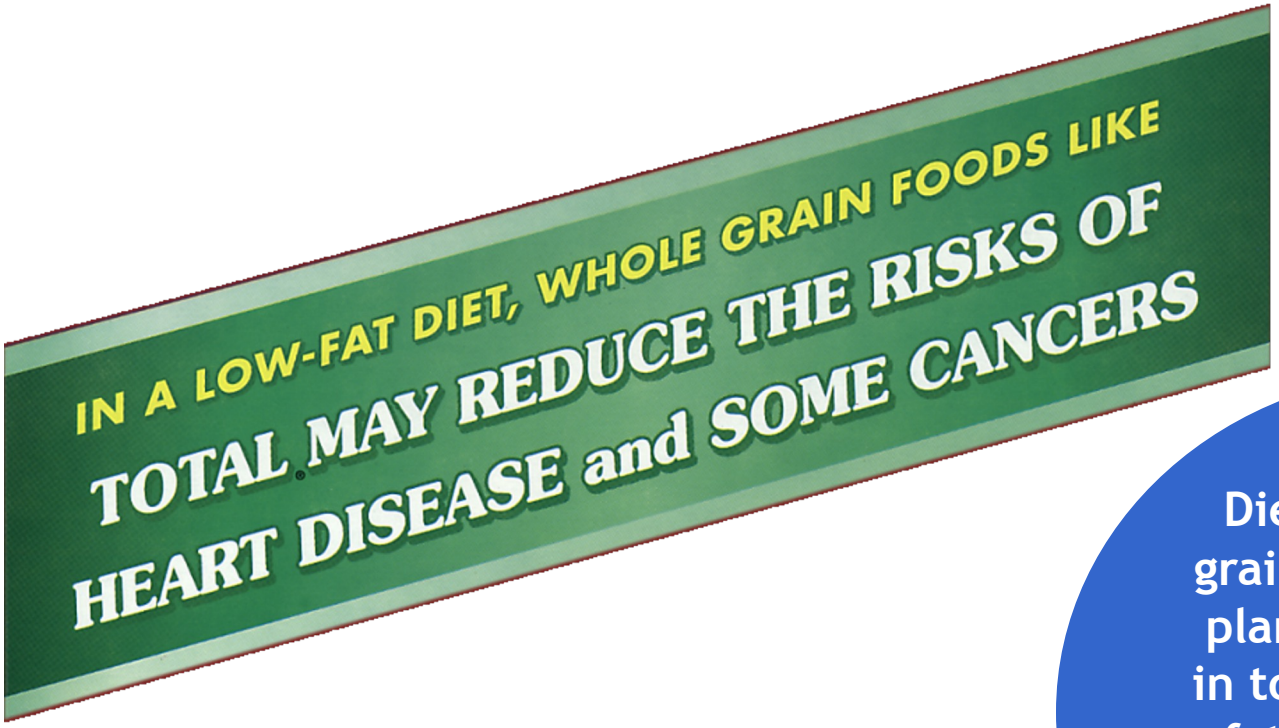


Label-Reading for Whole Grain



Look for "Whole Grain" as a Leading Ingredient

Look for an FDA-Approved Health Claim



Diets rich in whole grain foods and other plant foods, and low in total fat, saturated fat and cholesterol may reduce the risks of heart disease and certain cancers.

General Mills, Inc

Look for Whole Grain Symbols

Whole Grains Council Stamp Program

For products offering a half-serving or more of whole grain. Contains at least 8g whole grain per serving.

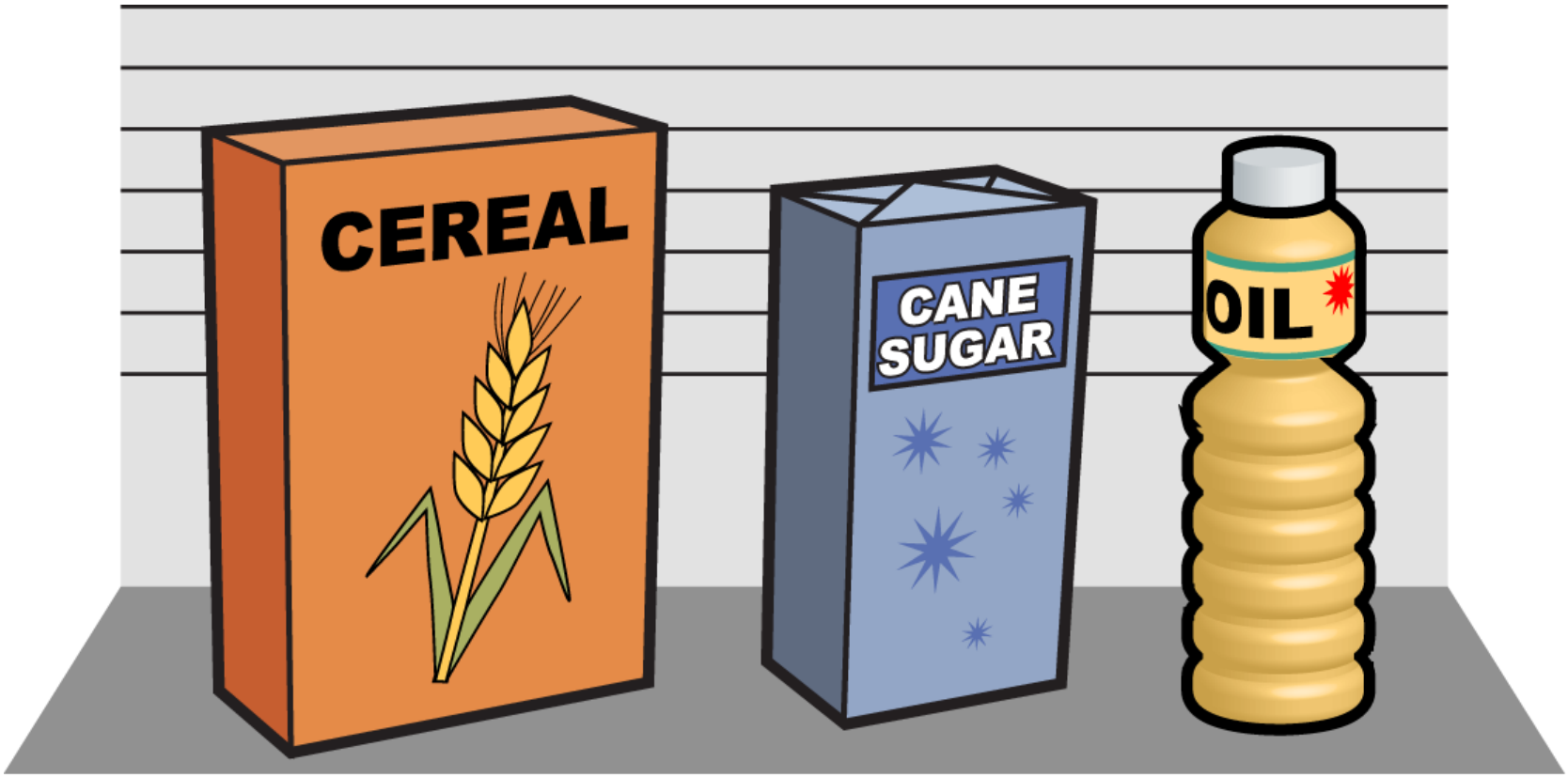
For products where ALL of the grain is whole grain. Contains at least 16g whole grain per serving.

General Mills Products

The Whole Grain Guarantee from General Mills guarantees that every box of Big G cereal has at least 8 grams (a half serving) of whole grain per serving. At least 48 grams of whole grain is recommended daily.

General Mills, Inc; Whole Grain Stamps appear courtesy of the Whole Grains Council

Activity: Fiber Line-up

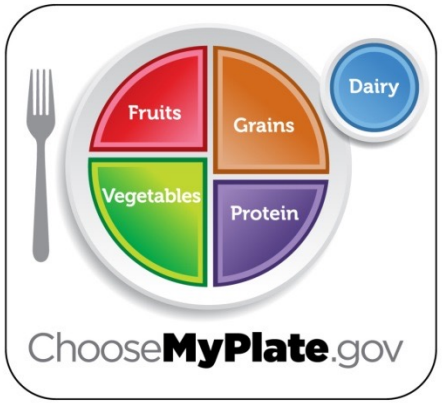


Fiber Sugar Fat

Challenge!

Each week, for the next four weeks, try a new whole grain food.

The Basic Nutrients
Key Point Recap



- IN: A healthy diet has a balance of carbohydrates, protein and fat
- IN: “Vary your veggies” and “Focus on fruits”
- IN: “Make half your grains whole”
- IN: Get enough fiber
- Watch out for packaging health claims

Your Health Matters!

Switch to
Understanding the Nutrition Facts Label
PowerPoint