

Food Guide Pyramid, Nutrients, and Portion Sizes

Indiana Dairy Council

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Objectives

- Introduce the new food guide pyramid
- Address the nutrients provided by each food group
- Explain portion sizes for each food group
- Discuss servings needed for a 2000 calorie diet

The New Food Guide Pyramid



New Features

- Vertical food groups
- Width of color coordinated food group correlates to amount of servings needed
- Stairs and climbing person to promote and encourage activity

Physical Activity



Physical Activity Requirements

Physical activity simply means movement of the body that uses energy. Walking, gardening, briskly pushing a baby stroller, climbing the stairs, playing soccer, or dancing the night away are all good examples of being active. For health benefits, physical activity should be **moderate** or **vigorous** and add up to at least 30 minutes a day

Food Guide Pyramid Groups



Grain Group Nutrients and their benefits

Dietary Fiber from Whole Grains:

- Reduces blood cholesterol levels
- May lower risk of heart disease
- Reduces constipation and diverticulosis
- Provides a feeling of fullness with fewer calories

Food Guide Pyramid Groups



Grain Group Nutrients and their benefits cont'd

Several B vitamins (thiamin, riboflavin, niacin, and folate):

- Play a key role in metabolism
- Maintain a healthy nervous system

Folate:

- Used in the creation of red blood cells
- Needed in pregnancy to avoid neural tube defects

Minerals (iron, magnesium, and selenium):

Iron is used to carry oxygen in the blood

Magnesium builds bones and releases energy from muscles

Selenium protects cells from oxidation

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Grain Group Serving Sizes

In general, 1 slice of bread, 1 cup of ready-to-eat cereal, or $\frac{1}{2}$ cup of cooked rice, cooked pasta, or cooked cereal can be considered as 1 ounce equivalent from the grains group

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Vegetable Group nutrients and their benefits

Potassium

- May help to maintain healthy blood pressure

Dietary Fiber

- Reduces blood cholesterol levels
- May lower risk of heart disease
- Reduces constipation and diverticulosis
- Provides a feeling of fullness with fewer calories

Folate (folic acid)

- Used in the creation of red blood cells
- Needed in pregnancy to avoid neural tube defects

Food Guide Pyramid Groups



Vegetable Group nutrients and their benefits

Vitamin A

- Keeps eyes and skin healthy and helps to protect against infections

Vitamin E

- Helps protect vitamin A and essential fatty acids from cell oxidation

Vitamin C

- Helps heal cuts and wounds and keeps teeth and gums healthy
- Aids in iron absorption

Food Guide Pyramid Groups



Fruit Group Nutrients and Their Benefits

Potassium

- May help to maintain healthy blood pressure

Dietary Fiber

- Provides a feeling of fullness with fewer calories

Folate (folic acid)

- Used in the creation of red blood cells.
- Needed in pregnancy to avoid neural tube defects

Vitamin C

- Helps heal cuts and wounds and keeps teeth and gums healthy
- Aids in iron absorption

Food Guide Pyramid Groups



Fruit Group Serving Size

In general, 1 cup of fruit or 100% fruit juice, or $\frac{1}{2}$ cup of dried fruit can be considered as 1 cup from the fruit group.

Food Guide Pyramid Groups



Milk Group Nutrients and their Benefits

Calcium

- Used for building and maintaining strong bones
- Helps form strong healthy teeth

Potassium

- May help to maintain healthy blood pressure

Vitamin D

- Functions in the body to maintain proper levels of calcium and phosphorus, thereby helping to build and maintain bones

Food Guide Pyramid Groups



Milk Group Nutrients and their Benefits

Riboflavin, Niacin

- Play a key role in metabolism
- Maintain a healthy nervous system

Vitamin A

- Keeps eyes and skin healthy and helps to protect against infections

Vitamin B12

- Helps build red blood cells to carry oxygen to the body

Phosphorus

- Helps strengthen bones
- Generates energy in your body's cells

Food Guide Pyramid Groups



Meat and Beans Group Nutrients and their Benefits

Protein

- Function as building blocks for bones, muscles, cartilage, skin, blood, enzymes, hormones, and vitamins.

Vitamin E

- Helps protect vitamin A and essential fatty acids from cell oxidation

Iron

- Used to carry oxygen in the blood

Food Guide Pyramid Groups



Meat and Beans Group Nutrients and their Benefits

Magnesium

- Used in building bones and in releasing energy from muscles.

Zinc

- Necessary for biochemical reactions
- Helps the immune system function properly

B vitamins (niacin, thiamin, riboflavin, and B6)

- Help the body release energy
- Play a vital role in the function of the nervous system
- Aid in the formation of red blood cells
- Help build tissues

Food Guide Pyramid Groups



Meat and Beans Group Serving Size

In general, 1 ounce of meat, poultry or fish, $\frac{1}{4}$ cup cooked dry beans, 1 egg, 1 tablespoon of peanut butter, or $\frac{1}{2}$ ounce of nuts or seeds can be considered as 1 ounce equivalent from the meat and beans group

Food Guide Pyramid Groups



Oils as discretionary calories



All fats and oils are a mixture of saturated fatty acids and unsaturated fatty acids.

- Solid fats contain more **saturated fats** and/or *trans fats* than oils.
- Oils contain more monounsaturated (MUFA) and polyunsaturated (PUFA) fats.
- Saturated fats, *trans* fats, and cholesterol tend to raise “bad” (LDL) cholesterol levels in the blood, which in turn increases the risk for heart disease.

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Oils as Discretionary Calories



Most of the fats you eat should be polyunsaturated (PUFA) or monounsaturated (MUFA) fats. **Oils are the major source of MUFAs and PUFAs in the diet.** PUFAs contain some fatty acids that are necessary for health—called “essential fatty acids.”

Because oils contain these essential fatty acids, there is an allowance for oils in the food guide separate from the discretionary calorie allowance.

Food Guide Pyramid Groups



Oils as Discretionary Calories



Most Americans consume enough oil in the foods they eat, such as:

- nuts
- fish
- cooking oil
- salad dressings

A person's allowance for oils depends on age, sex, and level of physical activity.

Planning Your Meals

To get the nutrients that you need from all the food groups, planning well balanced meals is crucial!

A tool can be helpful in tracking your food intake for the day and recording what food groups you're eating from.

Don't forget your physical activity!



MyPyramid Worksheet

Check how you did today and set a goal to aim for tomorrow

Write in Your Choices for Today	Food Group	Tip	Goal Based on a 2000 calorie pattern.	List each food choice in its food group*	Estimate Your Total
_____	GRAINS 	Make at least half your grains whole grains	6 ounce equivalents (1 ounce equivalent is about 1 slice bread, 1 cup dry cereal, or 1/2 cup cooked rice, pasta, or cereal)	_____	_____
_____	VEGETABLES 	Try to have vegetables from several subgroups each day	2 1/2 cups Subgroups: Dark Green, Orange, Starchy, Dry Beans and Peas, Other Veggies	_____	_____
_____	FRUITS 	Make most choices fruit, not juice	2 cups	_____	_____
_____	MILK 	Choose fat-free or low fat most often	3 cups (1 1/2 ounces cheese = 1 cup milk)	_____	_____
_____	MEAT & BEANS 	Choose lean meat and poultry. Vary your choices—more fish, beans, peas, nuts, and seeds	5 1/2 ounce equivalents (1 ounce equivalent is 1 ounce meat, poultry, or fish, 1 egg, 1 T. peanut butter, 1/2 ounce nuts, or 1/4 cup dry beans)	_____	_____
_____	PHYSICAL ACTIVITY 	Build more physical activity into your daily routine at home and work.	At least 30 minutes of moderate to vigorous activity a day, 10 minutes or more at a time.	*Some foods don't fit into any group. These "extras" may be mainly fat or sugar—limit your intake of these.	_____

How did you do today? Great So-So Not so Great

My food goal for tomorrow is: _____

My activity goal for tomorrow is: _____

Portion Sizes

Using common household items to approximate portion sizes can be very helpful when serving yourself

1 Cup =		Baseball
$\frac{3}{4}$ Cup =		Tennis Ball
$\frac{1}{2}$ Cup =		Computer Mouse
$\frac{1}{4}$ Cup =		Egg
3 Oz. =		Deck of Cards
2 Teaspoons =		Ping-Pong Ball

Portion Sizes

Using common household items to approximate portion sizes can be very helpful when serving yourself



3 oz (75 g) cooked chicken
or meat (4 oz raw):
deck of cards



1 cup (250 ml) cooked rice,
pasta or ice cream:
tennis ball



1 oz (30 g) cheese:
4 dice or 1 domino



medium piece of fruit:
baseball



1 tsp (5 ml) butter or
margarine: one die



1 small baked potato:
a computer mouse



average woman's fist:
1 cup (250 ml)



2 tbsp (30 ml) peanut butter,
jam, salad dressing: golf ball



1 oz (30 g) of chocolate:
a packet of dental floss