

Legumes (Dry Beans and Peas) in the Food Guide Pyramid

Background

Dry beans and peas are the mature forms of legumes such as kidney beans, pinto beans, lima beans, peas and lentils. These foods are excellent sources of plant protein, and also provide other nutrients such as iron and zinc. They are similar to meats, poultry, and fish in their contribution of these nutrients. In food guides in the U.S., dry beans have traditionally been promoted as “meat alternates” and extenders, because of their low cost and nutrient profile. Many people have considered these foods as simply vegetarian alternatives for meat.

However, dry beans and peas are also excellent sources of dietary fiber and nutrients such as folate that are low in diets of many Americans. Thus, beginning with the Hassle Free Guide in 1979, and the first edition of the Dietary Guidelines for Americans in 1980, consumption of legumes was promoted for everyone, even people who also consumed meat, poultry, and fish regularly. The Food Guide Pyramid included legumes as a subgroup of vegetables, and urged their frequent consumption—several times a week—as a vegetable selection. But the Pyramid also indicated that legumes may be counted as servings from the “meat, poultry, fish, dry beans, eggs, and nuts group” along with other foods considered “meat alternates”—eggs, nuts, and seeds. To emphasize the use of legumes in what had formerly been given the shorthand name “Meat Group,” the shorthand name has been expanded to “Meat and Beans Group.”

The name “meat alternates” was traditionally applied to foods that provide key nutrients such as protein, iron, and zinc, in amounts similar to meat, poultry, and fish. These include eggs, nuts (peanut butter is the most frequently consumed), seeds, and legumes such as dry peas and beans. Although these foods are equivalent sources of protein, they do differ substantially in provision of calories, certain other nutrients, and food components such as dietary fiber, carbohydrate, and fat. There are differences in nutrient profiles among red meats, poultry, and fish as well, so consuming a variety of foods from the meat and beans group is encouraged. Although beans provide more iron than meat, the iron in meat is largely heme iron, which is more available for use by the body. Meat, poultry and fish (especially red meats such as beef) are good sources of zinc; 1/2 cup of beans provides an amount of zinc approximately equivalent to 1 ounce of meat/poultry/fish.

How to count dry peas and beans in the Food Guide Pyramid

Servings of dry beans and peas can be counted **either** as vegetables (legumes subgroup), **or** in the meat and beans group. Generally, individuals who regularly eat meat, poultry, and fish would count their dry beans and peas servings in the vegetable group. Individuals who seldom eat meat, poultry, or fish (vegetarians) would count most of their legume servings in the meat and beans group. Here's how:

1. Count the number of ounce equivalents of all meat, poultry, fish, eggs, nuts, and seeds (MPFENS) eaten.
2. If the total MPFENS is equal to or more than the suggested intake from the meat and beans group (which ranges from 2 ounce-equivalents at 1000 calories to 7 ounce-equivalents at 2800 calories and above) then count any dry beans or peas eaten as part of the legume subgroup in the vegetable group.

OR

3. If the total MPFENS is less than the suggested intake from the meat and beans group, then count any dry beans and peas eaten toward the suggested intake level until it is reached. (One-half cup of cooked dry beans or peas counts as 1 ounce equivalent in the meat and beans group.) After the suggested intake level in the meat and beans group is reached, count any additional dry beans or peas eaten as part of the legume subgroup in the vegetable group.

EXAMPLE 1:

(FOR THE 1800 CALORIE FOOD PATTERN)

Foods eaten (meat and beans group only—not a complete daily list)

3 ounces chicken or beef
2 ounces tuna fish
1/2 cup refried beans

The 3 ounces of chicken and 2 ounces of tuna fish equal 5 ounce-equivalents in the meat and beans group, which meets the Pyramid recommendation at this calorie level. Therefore, the 1/2 cup of refried beans counts as 1/2 cup of legumes to meet the .43 cup daily (3 cups per week) recommendation for legumes in the 1800 calorie pattern.

EXAMPLE 2:

(FOR THE 1800 CALORIE FOOD PATTERN)

Foods eaten (meat and beans group only—not a complete daily list)

2 eggs
2 T. peanut butter
1 cup tofu
1/2 cup chickpeas

The 2 eggs and 2 T. peanut butter equal 3 ounce-equivalents in the meat and beans group. Two more ounces are needed to meet the 5 ounce Pyramid recommendation. These 2 ounces-equivalents are provided by the 1 cup of tofu. Since the meat and beans group recommendation has been met, the 1/2 cup of chickpeas, then, counts as 1/2 cup of legumes to meet the .43 cup daily (3 cups per week) recommendation for legumes in the 1800 calorie pattern.