

PRADER-WILLI SYNDROME FOOD PYRAMID

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Adapted by Prader-Willi California Foundation

Editors' Note: The USDA's Food Guide Pyramid provides an appealing graphic tool for thinking about a day's food portions, but it simply adds up to too much food for someone on a Prader-Willi syndrome diet. We asked the Children's Institute if they could adapt the new pyramid to the typical PWS diet for families that might wish to use it as an alternative to the Exchange System, the Red-Yellow-Green (Stoplight) Diet, or other methods of counting calories. The Institute was glad to oblige but urges those who have been through the Institute's program to continue using the Red-Yellow-Green Diet that they learned there. The Prader-Willi Syndrome Food Pyramid that follows may not be appropriate for young children or for those on growth hormone therapy and it should not be considered a substitute for individualized dietary guidance. Dietary guidance preferably should come from a nutritionist who is familiar with Prader-Willi syndrome.

The Food Pyramid Guide to Daily Food Choices, designed by the U.S. Department of Agriculture for adults who need 1,600 to 2,800 calories a day, represents the relative portions of foods to eat each day to maintain a healthy weight and body. To make the Food Pyramid usable for people with Prader-Willi syndrome, a few changes have to be made.

The first change needed is to adjust the number of daily servings for each food group in order to reduce the total calorie level to 800 to 1,200 a day. These lower levels will provide for weight loss or maintenance for the adult or teenager with PWS, whose calorie needs are about 60 percent of those without PWS.

Second, although the five main food groups—bread, vegetable, fruit, meat, and milk—remain the same, the positions of two of the groups need to be changed on the pyramid to reflect a change in the recommended number of servings. Each group has a specific number of servings that determines its position on the pyramid.

The Food Groups

The USDA Food Pyramid has a base of the Bread group, which would provide the highest number of daily servings. The PWS Pyramid, on the other hand, has as its base the **Vegetable group**, with 6-8 servings a day. For those familiar with the Red-Yellow-Green Diet, these would be "GO" foods, i.e., foods low in calories and fat. Making the vegetable group the base of the pyramid and the bulk of the diet will allow a large volume of food to be eaten without many additional calories.

The **Bread group**, which includes cereal, pasta, and rice, moves up the pyramid with a decrease in number of servings to three to five per day. We would also include starchy vegetables like corn, peas, and potatoes in this group because they have the same amount of calories per serving as breads.

The **Fruit group** includes fresh fruit, canned fruit, juice, and dried fruits. Many people think of fruit as a "free" food. While it is a good snack and a good source of fiber and vitamins, it does have calories that should be counted if one is on a restricted diet. The daily servings may be as high as four (one at each meal and one for snack) [but for many individuals with PWS, daily fruit servings should not exceed two].

The **Milk group** includes yogurt, milk, and cheese. To fit the needs of the person with PWS, the servings per day should be two, and the products chosen should be nonfat or low in fat. Fat-free, sugar-free frozen yogurt also can be used as a milk serving.

The **Meat group** includes meat, fish, poultry, eggs, peanut butter, and cooked dried beans. The USDA also includes nuts in this group, but due to their high fat content they should be at the top of the PWS Pyramid. And the USDA suggests two to three meat servings per day of 2½-to-3-oz. portions. To decrease the calories for the PWS meal plan, we changed the portion size to 2 oz. and suggest one to two servings a day. This means that a person on 800 calories could divide the 2 oz. serving to provide 1 oz. at lunch and 1 oz. at dinner, and a person on 1,200 calories could have 2 oz. at lunch and 2 oz. at dinner.

Serving Sizes

Except for the meat group, the serving sizes on our PWS Pyramid are unchanged from the USDA Food Pyramid. They are as follows:

Vegetable: ½ cup cooked or 1 cup raw

Bread: 1 slice bread; ½ cup rice, pasta, or starchy vegetable; 1 oz. cereal

Fruit: ½ cup canned, ½ cup or 1 piece fresh, ¼ cup dried; ½ cup juice

Milk: 1 cup skim milk or lite yogurt, 1 oz. cheese, ½ cup frozen fat-free sugar-free yogurt

Meat: 2 oz. cooked lean meat, fish, poultry; 1 egg; ½cup cooked dried beans; 2 tablespoons peanut butter

Fats, Oils, and Sweets

The top of the USDA Pyramid shows fats, oils, and sweets. These are denoted by symbols that are concentrated in this area and dispersed throughout the other groups. The USDA suggests that these foods be used sparingly to add extra calories. These foods include butter, margarine, regular dressings, candy, sugars, sweets, fatty desserts, gravy, and fried foods, to name a few. The foods from this group add unwanted calories and few nutrients to the Prader-Willi syndrome diet. They should be limited to once a month for an 800-calorie plan and once a week for a 1,200-calorie plan. We have deleted the fat symbols throughout the PWS Pyramid because all foods chosen should be low in fat and sugar.

Using this modified pyramid as a guide to weight loss and maintenance, in conjunction with a favorite exercise program, can be an easy way to ensure a healthy, nutritious diet for the person with Prader-Willi syndrome.