

Whey Protein:

Nutritional Powerhouse

Even if you are not an elite or serious athlete you may have heard about the benefits of consuming whey protein for its effects on body composition, improving the immune system and helping with weight management. This handout will give you some background information on whey protein and how to incorporate it into your diet.

Whey protein: what is it?

Whey is one of the two major proteins found in cow's milk, comprising about 20% of total milk protein. Whey proteins, which refer to a group of individual proteins, contain water, lactose, protein, minerals (calcium, phosphorus, magnesium) and fat. Depending on how it is produced, whey protein contains different levels of these nutrients.

What are the benefits of whey protein?

The best known effects of whey protein are its ability to help promote weight loss, increase lean muscle mass and boost the immune system.

Whey protein contains high levels of essential and branched-chain amino acids which have been shown to help people maintain or build muscle tissue. This can be important for athletes, people trying to lose body fat and older adults concerned about maintaining their muscle mass. Whey protein may also help with weight loss by increasing feelings of fullness and maintaining blood glucose at constant levels.

Whey proteins boost the immune system by helping the body produce an antioxidant called glutathione. Glutathione protects against free radical damage, pollution, toxins, infection and sunlight exposure. Adding whey protein to the diet may help protect health in people of all ages.

How much do I need to consume for these benefits?

Generally about 20-25 grams per day of whey protein is adequate to reap the benefits for body composition, weight management and immunity benefits. Athletes in training or competition may need more, 40-50 grams per day, to replace the proteins burned in exercise and to help repair and build new muscle tissue. Remember that whole food sources of protein such as milk and dairy foods, meat and legumes are still important for the other nutrients that they provide beyond protein.

How much total protein do I need in my diet?

The recommended protein intake is a hotly debated issue in the nutrition community. Many experts feel that the current recommended dietary allowance (RDA) of 0.8 grams per kilogram body weight (0.36 grams per pound) is too low, particularly for athletes and those with special medical needs. The Institute of Medicine (IOM) recommends that protein intake comprise 10-35% of total calories – a range intended to take into account an individual's different needs as a result of age, weight, gender, activity level, medical needs, health goals, individual preferences and lifestyle.

Where can I buy whey protein?

Many grocery stores carry whey protein in their nutritional supplements section. In addition, it can be purchased at health food stores or on the internet. When choosing a supplement, make sure you read the label and purchase products that contain WPI (whey protein isolate) or WPC 80 (whey protein concentrate 80%); these indicate that the whey protein is in a more highly concentrated form. A quick way to compare products is to divide the number of grams of protein per serving by the total number of grams per serving. If lactose is a concern, select whey protein isolate which contains little or no lactose.

How do I use whey protein in my diet?

Whey protein products come in various forms – powder, nutritional bars or beverages. Think about your diet and identify the easiest way to add these products without changing your favorite foods and habits. For example, whey protein powder can easily be added to a morning shake or smoothie. It can be stirred into yogurt, cottage cheese, juice or sports drinks, mashed potatoes, instant oatmeal, or sprinkled on breakfast cereal. The powder can be used as a protein fortifier in meatloaf, soup, sauces and instant pudding. If you typically eat energy bars, try a whey protein bar instead. See recipes on next page or visit www.biprousa.com for additional suggestions and recipes.

Whey Protein Nutrition Bars

1/4 cup corn syrup	1/3 cup peanut butter
1 3/4 cup whey protein isolate	2 tablespoons powdered sugar
1/3 cup honey	1 teaspoon vanilla extract
3/4 cup chopped peanuts	Melted chocolate

1. Place corn syrup, honey, peanut butter and vanilla into mixer. Blend for one minute on medium speed.
2. Mix together whey protein powder, chopped peanuts and powdered sugar. Add to mixture in blender. Mix on low speed until blended.
3. Press mixture firmly into a lightly greased 9" x 9" pan. Let sit for one hour.
4. Cut into 12 bars. Dip bars into melted chocolate and place on waxed paper. Place the bars in the freezer for 3-4 minutes to harden.

Each 50 g bar contains 210 calories, 14 g protein, 16 g carbohydrate and 9 g fat.

Recipes courtesy of Whey Protein Institute

Frozen Fruit Protein Twist

1 ripe banana	1/4 teaspoon salt
1/4 cup sugar	1/4 cup evaporated milk
1/4 cup orange juice	1/4 cup whey protein isolate
2 tablespoons lemon juice	1/4 cup water

1. Add all ingredients into a blender and mix on high speed until well blended.
2. Pour into an ice cube tray or other freezer-safe container.
3. Freeze for 4 hours or until firm. Makes approximately 3 servings.

Suggestion: Create a colorful dessert by adding fruit chunks such as strawberries or peaches and freezing the mixture in a decorative mold. Garnish with sprigs of mint or additional fruit.

Each serving contains 165 calories, 10 g protein, 30 g carbohydrate, 2 g fat

Where can I go for more information or answers to specific questions?

The Whey Protein Institute has experts ready to answer your questions and provide you with more information. Visit their website at www.wheyforlife.org or call them at (866) 949-9439.



For questions or comments contact us at info@dairycouncilofca.org