

Protein's Role in Your Diet

» Food Sources Are Best

The Institute of Medicine has issued recommendations for nutrient intake by humans.

The experts recommend that 10% to 35% of your daily calorie intake should be in the form of protein.

The need for high-quality protein increases during periods of rapid growth, such as during infancy, adolescence and pregnancy.

You don't need a supplement to add protein to your diet; you can get all your protein by eating a balance of foods.

And eating a food that contains high-quality protein can provide additional nutrients in a single source.

Because high-quality protein in your diet supports muscle repair and growth, it's an important fuel for exercise, which causes the breakdown of muscle tissue. Ingesting high-quality protein after exercise helps repair and rebuild tissue.

Illness also increases protein needs, particularly if the illness causes a fever or if body tissue trauma occurs because of infection, breakage or burns. In fact, a strong immune defense is dependent upon protein containing antibodies.

Your Protein Needs

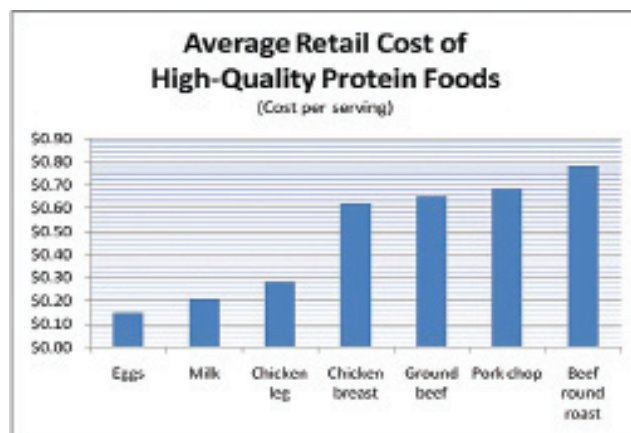
Protein is essential for important body functions, including growth, repairing worn out body cells and the synthesis of enzymes — chemicals that the body needs to digest and use nutrients. Protein is also a source of energy.

Protein is the only nutrient that can supply nitrogen, a crucial element that is part of every cell in your body. However, little extra protein can be stored in body tissues, so once adequate protein is stored, any extra protein calories contribute to fat tissue.

Protein is broken down into smaller units called amino acids. When you eat protein, it is broken down in your stomach and intestine by enzymes. After your food is broken down, protein is then rebuilt within the cell.

The proteins that one person's body builds are different from proteins built in another person's body.

The human body builds proteins from 20 amino acids, but nine of them must be obtained from the food we eat because our body cannot make them.



Source: U.S. Department of Agriculture, Economic Research Service. Retail data for beef, pork, poultry cuts, eggs, and dairy products. Available at: <http://www.ers.usda.gov/Data/MeatPriceSpreads/>. Accessed April 16, 2009.

Protein-Rich Foods

A food that supplies high-quality protein contains all nine amino acids that the body needs to support growth. If a food supplies proteins that are one amino acid short of the required nine, it is considered incomplete.

For instance, all proteins that are found in animal sources are complete. However, proteins from vegetable and grain sources are usually incomplete.

To gain maximum benefit from eating an incomplete protein, eat something that contains the missing amino acid. The most complete proteins are found in meat, fish, poultry, eggs, beans and milk.

It is important to know that high-quality protein foods don't have to be expensive. See the chart on this page for some suggestions about how to meet protein needs on a budget. Eggs are the cheapest high-quality protein food.

It is also important to keep in mind when choosing the proteins you eat that not all high-protein foods are high in unhealthy fat. For example, skinless chicken, eggs, turkey cutlets, loin or round beef, tofu and most fish are not high in unhealthy fat. NP

Additional Notes: