Protein

Protein is necessary for almost all bodily functions including tissue growth and repair, maintenance of muscle structure and the creation of several important enzymes (i.e. digestive enzymes) and hormones like insulin. Dietary protein can also be used as an energy source when needed. Adequate protein is especially important for athletes and individuals with weakened immune systems due to the increased need for cell and tissue repair. The richest sources of protein include meats, beans and milk, while grain products and vegetables contain small to moderate amounts of protein. Consuming protein-rich foods enables our bodies to get proper amounts of essential amino acids. Protein from soy and animal sources such as eggs, milk, fish, and meat contain all of the essential amino acids in high amounts and are therefore called **complete proteins.** All other plant sources of protein such as beans, nuts, and grains are lacking at least one essential amino acid and are therefore are **incomplete proteins.** It is the position of the American Dietetic Association that: "Plant protein can meet requirements when a variety of plant foods is consumed and energy needs are met. Research indicates that an assortment of plant foods eaten over the course of a day can provide all essential amino acids and ensure adequate nitrogen retention and use in healthy adults, thus complementary proteins do not need to be consumed at the same meal."

Vegetarians and vegans who are concerned about their protein and amino acid intake can consume soy products and a variety of beans, nuts, and grains in order to ensure a complete amino acid profile. Protein requirements vary per person depending on body weight, age, and activity level. Protein recommendations for the average adult are 10-35% of daily calories- about **50-175 grams of protein per day** for a 2000 calorie diet. Americans typically do not have a problem meeting the protein requirement. It is a common misconception that consuming large amounts of protein will lead to increased muscle mass. Remember that excess calories from protein that are not used for daily energy needs will lead to weight gain in the form of fat not muscle.

The protein content of various foods is included on the next page.

Resources

American Dietetic Association: http://www.eatright.org/
United States Department of Agriculture: http://www.mypyramid.gov/

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: **http://www.mckinley.illinois.edu**

Protein Content of Various Foods

Food Item	Serving Size	Protein (grams)
Chicken (cooked)	3 oz	27
Beef (cooked)	3 oz	22-25
Seitan	1/3 cup	23
Pork (cooked)	3 oz	22-24
Tuna (canned, drained)	3 oz	22
Salmon (cooked)	3oz	19
Turkey Jerky	1 oz	15
Tofu	½ cup	10-20
Zone Perfect bar	1 bar	12-14
Greek Yogurt	6oz	11-15
Cottage Cheese	½ cup	12
Veggie Dog/Burger	1	6-18
Soybeans (cooked)	½ cup	10-14
Kashi GO LEAN bar	1 bar	11
Toasted Wheat Germ	¼ cup	10
Cliff bar	1 bar	10
Luna bar	1 bar	9
Lentils (cooked)	½ cup	9
Turkey Bacon	1 oz	8
Peanut Butter	2 Tbsp	8
Skim Milk	1 cup (8 oz)	8
Soy Milk	1 cup (8 oz)	5-10
Pinto, Black, Kidney Beans (cooked)	½ cup	7
Chickpeas (cooked)	½ cup	7
Cheddar Cheese	1 oz	7
Egg	1 egg	6
Low-fat Yogurt	6 oz	6
Oatmeal, plain (cooked)	1 cup	6
Mixed Nuts	1 oz	5
Sunflower Seeds	2 Tbsp	5
Almonds, Pistachio, Cashews, Walnuts	1 oz	4-6
Canadian Bacon	1 oz	5
Quinoa	½ cup	5
Flour Tortilla	1 10” tortilla	3-6
Barley (cooked)	½ cup	4
Pasta (cooked)	½ cup	3.5
Potato (cooked)	1 medium	2-4.5
Whole Wheat Bread	1 slice	3
Brown Rice (cooked)	½ cup	3
White Bread	1 slice	2
White Rice (cooked)	½ cup	2
Corn Tortilla	1 6” tortilla	1.5