



Protein

- *Protein* has many important body functions. It builds and repairs muscle and is the basis of our body's organs, hormones, enzymes and antibodies.
- *Protein* is also an emergency fuel for the body in the absence of sufficient carbohydrate and fats. For this reason, weight loss should be gradual so as to preserve protein levels in muscle, the heart and other body organs.

Protein Requirements

Some *controversy* surrounds how much protein is required by different groups of people. It is suggested that the following recommendations be a guide:

Basic daily requirement	0.8 grams / kg of body weight
General sports activity	1.0 grams / kg of body weight
Strength training athletes	1.2 - 1.5 grams / kg of body weight
Endurance training athletes	1.2 - 1.6 grams / kg of body weight
Muscle development	1.8 grams / kg of body weight
Adolescent and growing athletes	2.0 grams / kg of body weight

Protein and Muscle

Although muscles are built of protein, protein is not a special fuel for working muscle cells carbohydrates and fats are. In fact a diet high in protein (and fat) with little carbohydrate, can significantly reduce the performance of an athlete involved in endurance sports. Carbohydrate is the best fuel for long periods of exercise.

Extra protein required by athletes and body-builders can easily be obtained from the extra food eaten to satisfy hunger and energy needs. Excess protein consumed will not build stronger muscles; it will simply be converted and stored as fat.

Vegetarianism

The potential health benefits of vegetarian diets are very impressive. These include a lesser rate of heart disease, cancer, hypertension, obesity, constipation and related ailments. Even vegetarians who eat eggs and dairy produce still have reasonably low blood cholesterol levels.

Nutritionally, meat, fish and poultry are concentrated sources of protein, iron, zinc and other nutrients. When omitting meat, appropriate food alternatives ***must*** be eaten to maintain zinc and iron levels.

To accomplish this, it is necessary to increase the intake of legumes, nuts, seeds, wholegrain breads and cereals. Also, several eggs per week will boost the intake of iron and other nutrients while milk and low fat dairy products will boost protein, calcium and vitamin B12. Vegan diets require more careful selection of foods. Sufficient protein can be assured by a daily intake of both legumes and cereals / grains. A vitamin B12 supplement is recommended.