

Beyond the Headlines: What Is a High-Protein Diet?

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The other day, a patient entered my office and complained about protein. She had just heard a report on the radio indicating a high-protein diet could contribute to osteoporosis. I explained to her how protein can help increase or decrease bone density (see "Protein, Calcium, and Bone Density, Part 2: The Protein-Calcium Paradox").

This month, we will focus on a very common phrase - "high-protein diet." Whenever you hear "high-protein diet" mentioned on the radio or television, it is rarely accompanied by a definition or description. Jump on the Internet and search for "high-protein diets and you will find that the vast majority of top sites, (both in favor or against high-protein diets) rarely inform the reader what they actual mean by "high-protein diet." There are scholarly publications that show high-protein diets promote weight gain;¹ promote weight loss;^{2,7} increase bone density;^{3,4} decrease bone density;^{5,6} are safe for the kidneys;⁴ may harm the kidneys;^{5,6} cause weight loss by water loss;^{5,6} cause weight loss by fat loss;^{2,4,7} elevate blood lipids;⁴ reduce blood lipids;^{2,7} are safe for the liver;⁴ may harm the liver;^{5,6} increase the risk of heart disease;^{5,6,8} decrease the risk of heart disease;^{2,4,8} increase the risk of some types of cancer;^{5,10} decrease the risk of some types of cancer.^{9,11}

The truth is, all of these seemingly contradictory statements may be correct, depending on how both "high protein" and "high-protein diet" are defined.

What is "high protein"?

There are three ways of defining a high protein intake:

1. The protein-to-body weight ratio. (See Table 1). The adult RDA is .8 grams per kilogram (2.2 pounds) of bodyweight per day (gr/kg/bw/d). 1.5 gr/kg/bw/d is normally considered a diet high in protein.
2. Percentage of total calories. A diet containing 25 percent of the calories from protein is normally considered the low end of a high-protein diet. When 30 percent or more of daily calories come from proteins, most nutrition professionals classify this as a high-protein diet.
3. Total daily protein grams. Three hundred grams of protein a day is a very high amount for all but a select few (such as a 350-pound professional athlete).

Table01

Group/Condition	Grams of Protein Per Kilogram of Body Weight
RDA Women over age 15	0.8
RDA Males ages 15-18	0.9
RDA Children ages 7-14	1.0

RDA Pregnancy and Lactation	1.0
Hospitalization	1.0
RDA Children ages 1-6	1.2
Endurance athletes	1.2 to 1.4
Surgery	1.5
Strength/power athletes	1.4 to 1.8
Multiple trauma	1.5 to 2.0
RDA Infants	1.5 - 2.0
Severe burns/sepsis	2.5

What is a high-protein diet?

In addition to the amount of protein, the source (animal or vegetable) and the type (whole food or processed) of protein(s) must be determined. Consideration for "diet" also must include daily caloric intake and how it breaks down: the amount of fat (saturated and unsaturated), fatty acids, (omega 3/6/9) carbohydrate, (simple and complex) and fiber (soluble and insoluble). Each of the above can contribute to how a so-called high protein diet will affect human physiology. The size, gender, activity and age of a person or persons in the study can further influence results and therefore should be known before the data is applied.

In conclusion, high-protein-diet headlines and sound bites seldom provide the details needed to ensure that any personal health change they provoke will be beneficial for the individual.

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