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UTM EatWell

Are Protein Powders Right For You?

Lately it seems like everyone is using **protein powder**. In case you are unfamiliar with them, protein powders are usually made of a blend of “whey protein isolate” (a component of cow’s milk) or “soy protein” (dehulled, defatted soybean meal) and are mixed with water as a beverage or “protein shake”. Protein powders claim to help you build muscle mass, gain weight (or lose weight) - but can they really do all this? At \$50 -\$80 or more per container, it is worth thinking about whether or not protein powders are right for you.

Why Are Protein Shakes So Popular?

Some health food stores, websites, gyms, and other retailers of protein powders use misleading claims and false promises in order to sell their products. Selling anything that might help us lose or gain weight easily, or make us look better is big business in North America.



Misleading Claim #1: “Consuming protein powder can boost immune system health, facilitate the healing of wounds after surgery or injury, and promote healthy skin, in addition to fostering muscle strength and development.”

There is no research indicating that protein powder has any benefit over a diet that contains adequate amounts of protein from common foods. A 2004 review concluded that “at present there is no evidence to suggest that supplements are required for optimal muscle growth or strength gain”. Earlier research has established that strength athletes require slightly more protein than sedentary individuals (i.e. the level that is typically recommended for Canadians), however protein from real foods like eggs, poultry, meat, soy, and dairy can easily provide sufficient protein for even elite strength-trained and endurance athletes.

Misleading Claim #2: *“The human body needs to be supplemented with daily protein since there is no way to store excess protein”.*

This statement is misleading because excess protein (or fat or carbohydrate) that is consumed can in fact be stored – as body fat and excess weight. Dietary protein consumed in excess of requirements is oxidized as energy and is not deposited as muscle mass, as there is a limit to how much muscle your body can create at any one time. Excess intake of protein is either oxidized /burned and excreted by the liver, or is stored as body fat. The statement that “the human body needs to be **supplemented** with daily protein” falsely suggests that supplements are necessary for the body, when in fact they are not.

Misleading Claim #3: *“Even if you are not a bodybuilder or athlete, starting your day with a protein shake can stabilize your blood sugar levels throughout the day, making it easier to control body weight and food cravings”.*

Considering that same product sold to promote weight gain and muscle mass for bodybuilders also promotes weight loss through control of “body weight and food cravings”, this claim seems doubtful. Consuming adequate protein at meals does help keep you feeling full longer, however it does not necessarily need to come from a protein shake. In fact, liquids (beverages) are digested relatively fast, and the satisfying feeling from protein is better gained from eating solid foods like eggs, cheese, meat or beans. And of course, any nutrient consumed in excess of the body’s need will be partially stored as fat.

Misleading Claim #4: *“Protein powders are an easy and convenient substitute for food sources of protein”.*

Ah, at last... a true statement. Protein powders are a SUBSTITUTE for food sources, and do have the advantage of being relatively convenient (e.g. you don’t have to cook, or even refrigerate them). However, this convenience is a costly one - upwards of \$2500 a year!

Most nutrition experts agree that the average person, even someone trying to get more fit, gain muscle, lose weight, or achieve some fitness goal, **does not need a protein supplement or protein powder**. The Coaching Association of Canada, Dietitians of Canada, the American College of Sports Medicine, and the American Dietetic Association all agree that “...*protein recommendations for endurance and strength trained athletes range from 1.2-1.7 g/kg (0.5-0.8 g/lb.) body weight per day. These recommended protein intakes can generally be met through diet alone, without the use of protein or amino acid supplements”.*

Take home message: If you are an athlete who is training hard (1 hour or more) on most or every day for your sport, you may benefit from the convenience of a protein shake as part of your daily intake and calories needs. But if you are just trying to get in shape, build muscle mass or lose weight, the only benefit you’ll get from a protein shake is convenience, and you may be inadvertently taking in more calories than you need.

References:

Dietitians of Canada, American College of Sports Medicine, American Dietetic Association, *Medicine & Science in Sports and Exercise*, 2008.
Phillips, S.M., *Nutrition* 2004;20:689–695.
Tarnopolsv et al.. *J. Appl. Physiol.* 1992: 73(5):1986-1995.



Students can make an appointment with the Health & Counselling Centre’s Dietitian for a personalized assessment of protein and other nutrient needs.

Call (905) 828–5255 to make an appointment. Free for UTM students!