

EVALUATING DIETARY SUPPLEMENTS: PILLS, POWDERS, BEVERAGES AND BARS



Food is more than nutrients. It is more satisfying to eat food than to swallow a pill. Supplements are more expensive and often do not contain the full nutrient profile of real foods.

For information on nutritional supplements, see the “[Position Statement on Nutritional Supplements](#)” and the “[Nutritional and Dietary Supplements \(FAQs\)](#)” from the Sport Nutrition Advisory Committee of the Coaching Association of Canada.

The following tables allow you to determine whether foods can provide all the carbohydrate, protein, and fat needed for your training and competition.

DIETARY SUPPLEMENTS, INCLUDING HERBAL PRODUCTS MAY:

- Contain undeclared ingredients, contaminants, and/or banned substances.
- Contain thousands of chemicals, including drugs or related substances, that may produce a positive doping test.
- Include rare or unusual ingredients (bark, roots, flowers) with unknown properties and could include banned substances.
- Contain a variable concentration of the active ingredient from one batch to the next.

Health Canada established the [Natural Health Products Directorate](#) to ensure that all vitamins, minerals, herbal and homeopathic medicines meet their regulations for quality, safety, and efficacy. Check labels for an eight-digit number, preceded by the letters DIN (Drug Identification Number), NPN (Natural Product Number), or DIN-HM (DIN-Homeopathic Medicine), which mean the supplement meets standards of formulation and labelling. **However, none of these designations will guarantee that a dietary supplement meets the WADA criteria for prohibited substances and athletes are reminded that they take supplements at their own risk.**

However, for a higher level of assurance, look for products tested by [NSF Certified for Sport™](#) or [HFL](#). Products that have the NSF or HFL certification have been tested for the presence of banned substances.

Dietary Supplements can be expensive. Can you consume food rather than dietary supplements? Use the following tables to compare:

- Use nutrition information panels on food labels to compare the carbohydrate, protein, fat, vitamin, and mineral content of common foods with the nutrient profile of supplement products.
- Calculate the cost per week or month for each nutritional product — Is food more economical?
- Rate the taste of nutritional products and food — Which do you prefer?

HIGH CARBOHYDRATE ENERGY SOURCES:

Product	Carbohydrate	Protein	Fat	Cost	Taste	Comment
1 fig bar (16 g)	11 g	1 g	1 g			
1 slice mixed grain bread and 5 mL jam	12 g 4 g	3 g trace	1 g trace			
1 plain bagel (10 cm)	48 g	9 g	1 g			
175 g fruit bottom yogurt (1–2% M.F.)	31 g	7 g	3 g			
Your favourite granola or energy bar						
Your favourite gel packet						

PROTEIN RICH FOODS/PRODUCTS:

Product	Carbohydrate	Protein	Fat	Cost	Taste	Comment
75 g lean sirloin steak	0 g	23 g	4 g			
75 g chicken breast without skin	0 g	23 g	3 g			
250 mL milk (0.1% M.F.)	12 g	8 g	3 g			
125 mL skim milk powder	19 g	13 g	trace			
1 boiled large egg	1 g	6 g	5 g			
Protein/amino acid supplement						



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SPORT DRINKS: Current recommendation is 40 to 75 g carbohydrate and 0.5 to 0.7 g sodium per litre and to drink 400–800 mL of fluid per hour of exercise.

Product	Carbohydrate	Protein	Fat	Cost	Taste	Comment
1 litre of water plus 45–90 mL sugar 1.25 to 1.75 mL table salt lemon juice or tea, to taste	39–78 g	0 g	0 g			
500 mL water/500 mL orange juice, salt	52 g	4 g	2 g			
1 litre Gatorade						
1 litre PowerAde						

RECOVERY DRINKS: To replace carbohydrate stores after prolonged or strenuous exercise, consume 0.5 g carbohydrate per kg body weight during the first 30 minutes and again every 30 minutes for 2–4 hours or until your next meal. Protein consumed after exercise will provide the amino acids needed to build and repair muscle tissue.

Product	Carbohydrate	Protein	Fat	Cost	Taste	Comment
500 mL chocolate milk (1%)	56 g	18 g	6 g			
175 g plain yogurt (1–2% M.F.) blended with 125 mL orange juice and 1 medium banana	12 g 13 g 27 g	9 g 1 g 1 g	3 g 0.5 g 1 g			
250 mL fortified soy drink	5 g	7 g	5 g			
250 mL pineapple juice	36 g	1 g	trace			
500 mL Boost or Ensure						

Assess the product's usefulness and information accuracy:

- Are claims based on reliable/solid science (peer reviewed scientific journals) or anecdotal/testimonials (comments from other users)?
- Are the claims realistic or do they suggest the athlete can achieve extraordinary performance?
- Is the claim appropriate for your sport?

Be aware that not all information on the Internet is reliable.

Consult a registered dietitian with sport knowledge, physician or pharmacist about your dietary supplements. You can contact the dietitian at your [Canadian Sport Centre](#) or someone listed under the [Sport Nutrition Registry](#) on the CAC website.

If there is no dietitian with expertise in sport listed in your area, [Dietitians of Canada](#) may list a dietitian near where you live.

Remember, always try a new product in training, not in a competition.

TRAIN HARD, EAT WELL. YOUR NUTRIENTS ARE IN YOUR FOOD!

