

Protein Drinks for Athletes

ne of the most common recommendations for athletes is protein supplementation, which the body uses to repair and rebuild muscle tissue damaged during exercise. A huge variety of protein supplements is available, so how do you know which one to use? Some products are marketed specifically to athletes and come with a hefty cost; other products provide the same nutrients as those pricey supplements for less money, but they may not necessarily be associated with athletic performance.

Athletes frequently consume protein drinks after a workout to get extra protein. Although they are commonly called "protein shakes," the main nutrients in these drinks often are carbohydrates with smaller amounts of protein. In fact, carbohydrates are the most important component of a post-workout recovery drink because they are needed to replace depleted glycogen stores. Small amounts of protein also are important for muscle repair and synthesis—which is exactly what some "protein" shakes provide. The most important thing is to drink something after a workout so your body can begin the process of glycogen replacement and muscle recovery.



POWERBAR RECOVERY SHAKE Rating *** Claims High protein, vitamins and minerals Allergens Milk S \$6.99/4 pack Distribution SM, H/N, IO Ø www.powerbar.com

PowerBar Recovery Shake

The new PowerBar Performance System is a three-step guide designed to help athletes adhere to sports nutrition guidelines via PowerBar products. The three steps—1. Energize, 2. Refuel, and 3. Rebuild—are indicated on product packaging so athletes know when to use each product.

- 1. The "Energize" product provides muscles with sustained energy from complex carbohydrates and protein and for training or competition via the PowerBar Performance Bar and PowerBar Energize Bar.
- 2. "Refuel" products are designed to keep muscles fueled with simple, easily digestible carbohydrates and electrolytes to maintain peak performance with the use of the PowerBar Gel, PowerBar Electrolytes, the PowerBar Endurance Sport Drink, and the PowerBar Performance Bar.
- 3. The "Rebuild" products, PowerBar Recovery Bar, PowerBar Recovery Shake, and PowerBar Recovery Beverage, replace energy stores and help muscles recover properly and quickly after training or competition with a combination of carbohydrates and protein.

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PowerBar Recovery Shake Creamy Chocolate Shake

Nutrition Facts

Serving Size: 11 oz	
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Servings Per Containe	
Calories 250 Calor	ries from Fat 50
	% Daily Value
Total Fat 5g	8%
Saturated Fat 1.5g	8%
<i>Trans</i> Fat 0g	
Cholesterol 10mg	3%
Sodium 220mg	9%
Potassium 540 mg	15%
Total Carb. 40g	13%
Dietary Fiber 1g	4%
Sugars 38g	
Protein 13g	
Vitamin A 45% • Vita	amin C 50%
Calcium 50% • Iror	n 25%
	amine 25%
Riboflavin 25% • Nia	
Vitamin B6 25% • Fol	
Vitamin B12 25% • Bio	tin 25%
Pantothenic Acid 25%	
Phosphorus 50% • Ma	
	pper 25% amin K 25%
IUUIIIe JU /o • IVia	nganese 25%

Our mission statement

To provide objective, balanced, and science based information on new food products, health issues, food labels, trends, and educational resources.

Key to information boxes Rating

- *** Recommended ** Recommended (see 'Cons') ★ Not Recommended
- Distribution
 - SM = Supermarkets
 - H/N = Health/Natural Food Stores
 - GS = Gourmet & Specialty Stores
- CS = Club & Super Stores ND = Nationally distributed

DC = Drug & Convenience Stores

- TM = Test Market

- **RD** = Regionally distributed
- MO = Mail Order
- IO = Internet Order
 - FS = Food Service
- Information not NA = available at the time of publication REE OFFER = Free product sample offer

= Editorial comments

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The PowerBar Recovery Shake is one of three products in the "Rebuild" step. This new shake has 13 g protein for muscle repair and synthesis and 40 g carbohydrates for glycogen replacement per 11-oz serving—a 3:1 carb-to-protein ratio (see FYI below). It comes in a convenient, ready-to-drink container in chocolate and vanilla flavors.

Pros: The PowerBar Recovery Shake is an excellent source of 21 different vitamins and minerals and provides a 3:1 carb-to-protein ratio.

Cons: None

This would be a great choice for recovery, especially for endurance athletes because of the high carbohydrate content—and it tastes good too!







EAS MYOPLEX ORIGINAL		
Rating		**
Claims	Fiber, v	itamins and
		minerals
Allergen	S	Milk
\$	\$49.95/	12 servings
🖝 Distri	ibution	SM, H/N,
		DC, IO
Ø	wv	ww.eas.com

How do you decide which post-workout protein drink is right for you?

Amy Bragg, R.D., C.S.S.D., L.D., Director of Performance Nutrition at Texas A&M University Athletics,

addresses recovery with Aggie athletes and summarizes her recommendations as follows:

For endurance athletes or individuals who need to gain weight:

3 to 4 g carbohydrates per gram of protein

For power athletes or elite athletes who desire weight maintenance and optimal performance:

• 2 to 3 g carbohydrates per gram of protein

To lean out or impact body composition during the off-season: • 1 to 2 g carbohydrates per gram of protein

"Recovery is so important for our athletes because optimal nutrition practices will increase endurance and lean body mass over time. Our student athletes juggle practice, conditioning, competition, travel, and academic demands. Promoting recovery after rigorous training helps the athletes perform better and stay healthy!"

EAS Myoplex Original

Use what the pros use! EAS products are currently the only sports nutrition brand with products certified by a third-party testing organization (NSF International, Inc.) as part of the NFL and NFL Players' Association Supplement Label Certification Program. According to their Web site, this means that select "EAS products fully comply with the NFL's banned substances requirements and also have been independently tested to verify that each product contains only what's on the label."

EAS Myoplex Original is a 17-oz ready-to-drink shake (also available in powder) that provides 300 calories, 19 g carbohydrates, and 42 g protein (0.45:1 carb-to-protein ratio). This product is recommended for those who have weight and fitness goals of becoming lean and strong or for general weight management.

EAS also has a light version—EAS Myoplex Lite—which comes in 11-oz ready-to-drink or powder form. It has a 1:1 carb-to-protein ratio, 170 calories, and 20 g carbohydrates and protein per 11-oz serving.

Pros: The NSF certification guarantees you are purchasing what the label says. This product also is high in fiber (6 g).

Cons: EAS Myoplex Original only is available in a 17-oz size. It is not ideal for recovery because of the 0.45:1 carb-to-protein ratio.

This product would be best suited for meal replacement rather than recovery because of the low carbohydrate content. However, pairing this with a piece of fruit or other carbohydrate-containing sports drink would increase your carbohydrate consumption. Use the powder if you want a smaller serving size or to make a high-protein fruit smoothie!



EAS Myoplex -Chocolate Fudge

Nutrition	Facts
Serving Size: 17 oz	
Servings Per Co	ntainer: 1
Calories 300	Calories from Fat 60
	% Daily Value
Total Fat 7g	11%
Saturated Fat	1g 5%
Trans Fat 0g	
Cholesterol 20m	ng 7%
Sodium 700mg	29%
Total Carb. 19g	6%
Dietary Fiber	6g 24%
Sugars 2g	
Protein 42g	
Biotin 50% Iron 15% Vitamin D 50% Magnesium 60% Copper 15% Riboflavin 60% Manganese 40% Vitamin E 100% Vitamin B12 50%	50% • Niacin 50%





MUSCLE MILK ORIGINAL		
Rating	**	
Claims	Claims Lactose free, low	
sugar, high protein		
Allergens	Milk and soy	
\$	\$11.95/4 pack	
Distribution SM, H/N, IO		
Ø	www.cytosport.com	

Muscle Milk Original

Record-setting NFL legend Jerry Rice and newcomer Adrian Peterson are just two of the many professional athletes who use Cytosport products. The best known Cytosport product is Muscle Milk, which claims to be "America's favorite protein." This lactose-free protein shake contains the trademarked Lean Lipids. Lean Lipids consist of medium-chain triglycerides (MCT), which provide fat metabolizing, anti-inflammatory effects and easily mobilized energy for workouts, according to their research. (See FYI below)

A low carbohydrate (9 g) and high protein (21 g) content, which is a 0.47:1 carb-to-protein ratio, make this shake more suitable for meal replacement or pre-workout (rather than post-workout) recovery. However, Cytosport offers products that can be added to the shakes (Cyto-Carb II) to customize the carbohydrate content. It comes in a variety of flavors, including Banana Crème, Root Beer Float, and Cookies 'n Cream, and in ready-to-drink (11 oz or 17 oz) or powder form.

Cytosport offers a line of Muscle Milk Light Products (8.5-oz readyto-drink and powder) with a 0.42:1 carb-to-protein ratio and 44% less fat and 33% less calories than the original Muscle Milk. This also is a great meal replacement in a smaller serving.

Muscle Milk Collegiate Formula (which was formulated to meet National Collegiate Athletic Association guidelines for supplements that can be purchased by institutions, meaning it has less than 30% of calories from protein and no banned substances) has a 1.46:1 carb-to-protein ratio and is available in 11-oz ready-to-drink and powder form.

Pros: Muscle Milk is a lactose-free product that comes in seven flavors. Cytosport also has achieved Good Manufacturing Practices (GMP) Registration through NSF International's Dietary Supplements Certification Program.

Cons: This product is high in saturated fat (4.5 g) and has a carbohydrate-to-protein ratio of 0.47:1.

This product is artificially sweetened and has a super sweet taste!



Medium-Chain Triglycerides (MCTs)

Medium-chain triglycerides are absorbed quickly and burned for immediate energy. It is thought that MCTs may spare the use of an athlete's muscle glycogen, which could delay the onset of fatigue. It also is suggested that MCTs help maintain muscle mass because they produce ketone bodies, which are used for energy before the body turns to the amino acids in muscle for energy. However, there has been very little research on MCTs and athletic performance to date. Learn more.

Do athletes really need more protein?

The International Society of Sports Nutrition (ISSN) recommends that endurance athletes consume 1 to 1.6 g protein per kilogram of body weight per day. Strength or power athletes should have 1.6 to 2 g protein per kilogram of body weight daily. The recommendation for athletes who take part in intermittent sports (e.g., soccer, basketball, etc.) is 1.4 to 1.7 g protein per kilogram of body weight per day. These recommendations depend on intensity and duration of exercise and the training status of the athlete. (See Tip Sheet on Page 7 for more information.)

"International Society of Sports Nutrition Position Stand: Protein and Exercise." Journal of the International Society of Sports Nutrition. 4:8. 2007.

Muscle Milk Original

Supplement Facts

Serving Size. IT uz
Sorvings Por Containa

Servings Per Container: 1	
alories 220	Calories from Fat 100
	% Daily Value
Total Fat 11g	17%
Saturated Fat	4.5g 23%
<i>Trans</i> Fat 0g	
Cholesterol 5m	g 2%
Sodium 110mg	5%
Total Carb. 9g	3%
Dietary Fiber	0g 0%
Sugars 5g	
Protein 21g	
Vitamin A 22% Biotin 22% Iron 22% • Pantt Vitamin D 22% Vitamin E 27% Thiamin 22% Riboflavin 22% Vitamin B6 22% Folate 22% Vitamin B12 22	 Iodine 23% Magnesium 22% Zinc 23% Copper 22% Chromium 55% Potassium 7%







Horizon Organic Low Fat Chocolate Milk	
Rating	***
Claims	Organic
Allergen	s Milk
\$	\$3 to \$4/half gallon
Distribution SM, H/N, DC	
Ø www	v.horizonorganic.com

Horizon Organic Low Fat Chocolate Milk

Milk really does a body good! That's right—good, old-fashioned chocolate milk is a great choice for post-workout recovery and for cost-conscious athletes. Research has shown that chocolate milk is an effective alternative for recovery and is superior to regular milk because of the extra carbohydrates provided by the chocolate (International Journal of Sport Nutrition and Exercise Metabolism, 2006, 16, 78-91). Each 8-oz serving provides 170 calories, 27 g carbohydrates, and 8 g protein (3.38:1 carb-to-protein ratio). Horizon chocolate milk also is a great source of calcium (30%) and vitamin D (25%) and a good source of vitamin A (10%).

In addition, Horizon Low Fat Chocolate Milk is produced without antibiotics, growth hormones, or pesticides. Horizon also makes a low-fat regular milk (100 calories, 2.5 g fat, 12 g carbs, 8 g protein) and conveniently packed, shelf-stable, single servings of reduced-fat plain, strawberry, chocolate, and vanilla milk (up to 200 calories, 4.5 g fat, 31 g carbs, and 8 g protein, depending on flavor).

Pros: Horizon Organic Low Fat Chocolate Milk is a high in calcium and vitamin D and low in price. The 3.38:1 carb-to-protein ratio is great for recovery.

Cons: None

We tasted the single-serving, reduced-fat chocolate—it had a light chocolate flavor and wasn't too sweet.

Chocolate Milk for Recovery?

Some sport teams actually have switched to using chocolate milk for recovery! Check out this story about the Washington Huskies Division 1 football team.

Odwalla Super Protein Original

What about the vegetarian athlete? Odwalla has a line of organic, soy protein-based Super Protein drinks that are dairy free. The Original flavor, which is a 90% fruit juice/puree blend, has 190 calories, 35 g carbohydrates, and 10 g protein (3.5:1 carb-to-protein ratio). Be aware that each serving size is only half of the bottle. If you drink the whole bottle, you will consume about 350 calories, 65 g carbs, and 18 g protein.

Odwalla Super Protein Original would be a great choice for any athlete-especially those who participate in endurance sports-for recovery after a workout since it provides a 3.5:1 carb-to-protein ratio. The other flavors, Chocolate, Vanilla Al'mondo, Matcha-Licious (made from ground green tea leaves), and Pumpkin (seasonal), are slightly higher in fat (3.5 g)to 6 g vs. 1 g) and all provide a 2:1 carb-to-protein ratio per 8-oz serving. These drinks would be better suited for power/strength athletes.

Pros: Odwalla Super Protein Original is a great choice for vegetarian athletes.

Cons: The other flavors, besides Original, are higher in fat (3.5 g to 6 g vs. 1 g).

We tasted the Super Protein Original and the Chocolate. The Original had a nice fruity taste and the Chocolate had a rich chocolate flavor.

When is the best time to drink protein shakes?

The best window for recovery is within 30 minutes of completing a workout. During this time, your heart rate is elevated and blood is flowing quickly, which allows nutrients to reach cells in a timely manner. Also, ingesting a liquid supplement for recovery often is recommended since it is easier to digest and will reach circulation faster than whole food.

Horizon Organic Low Fat **Chocolate Milk**

Nutrition Facts Serving Size: 8 oz Servings Per Container: 8 in 1/2 gallon	
Calories 170 Calorie	s from Fat 25
	% Daily Value
Total Fat 3g	4%
Saturated Fat 1.5g	8%
<i>Trans</i> Fat 0g	
Cholesterol 15mg	4%
Sodium 140mg	6%
Total Carb. 27g	9%
Dietary Fiber <1g	4%
Sugars 27g	
Protein 8g	
Calcium 30% • Iron 2	nin C 2% 2% phorus 25%

Odwalla Super Protein Original

Nutrition Facts

Serving Size: 8 oz		
Servings Per Container: 2		
Calories 190	Calories from Fat 10	
	% Daily Value	
Total Fat 1g	1%	
Saturated Fat ()g 0%	
Trans Fat 0g		
Cholesterol 0mg	0%	
Sodium 180mg	8%	
Total Carb. 35g	12%	
Dietary Fiber	lg 4%	
Sugars 29g	-	
Protein 10g		
Vitamin C 150% • Vitamin A 0% Calcium 35% • Iron 10% Vitamin B1 150% • Magnesium 10% Zinc 20%		



ODWALL/	A SUPER PROTEIN
Rating	***
Claims	Vegetarian, high protein
Allergen	s Soy
\$	\$3.29/15.2-oz bottle
🖝 Distr	ibution SM, H/N, DC
0	www.Odwalla.com





SLIM-FAST OPTIMA HIGH- Protein Ready-to-Drink Shakes	
Rating	***
Claims Vitamins	and minerals
Allergens	Milk, soy
\$	\$5.49/4 pack
 Distribution 	SM, DC, CS,
_	ND, IO
© WWV	v.slimfast.com

Slim-Fast Optima High-Protein Ready-to-Drink Shakes

Slim-Fast is now more than just your average meal replacement shake for dieters. With only 190 calories per 11-oz serving, the Slim-Fast Optima High-Protein ready-to-drink shakes are a great choice for active people on the go. These shakes are packed with 23 vitamins and minerals, including 100% of the recommended intake for vitamins C and E.

Containing 24 g carbohydrates and 15 g protein (1.55:1 carb-to-protein ratio), this would make a great choice for someone who wants to lose body fat. The shakes come in chocolate, vanilla, and strawberry flavors. A powdered form also is available in chocolate and vanilla flavors.

Slim-Fast also has an Easy to Digest ready-to-drink shake that is lactose and gluten free and that provides 26 g carbs, 10 g protein (2.6:1 carb-to-protein ratio) and 180 calories per 11-oz serving—a perfect recovery choice for allergy-prone and lactose-intolerant athletes!

Pros: These high-protein shakes also provide 5 g dietary fiber.

Cons: Each serving has 2 g saturated fat.

The Slim Fast High Protein shake had somewhat of a chalky texture, but the taste was good.

What is the difference between the various protein sources?

Whey protein is found in milk. It is absorbed and used up quickly by your body. Therefore, it is a good supplement after intense workouts. **Casein** is the main protein found in milk. Since it is digested and absorbed slowly, it is a good supplement for meal replacements or before bed. Soy protein is plant based, but it is just as digestible as other protein sources. Soy also has the added bonus of containing antioxidants and being lactose free. It is a good meal replacement supplement. Most ready-to-drink protein shakes contain a combination of protein sources, including those listed above, as well as milk and/or eggs.

Kashi GO LEAN Shake Mix

Are you looking for a kosher option among protein shakes? Well, look no further. Kashi GO LEAN Shake Mix is your answer! Two scoops of this soy protein-based powder will provide 32 g carbs and 21 g protein (1.5:1 carb-to-protein ratio). You have the option of mixing it with either 8-oz milk (which will provide additional calories, carbs, and protein) or water.

The powder form may not be ideal for convenience; however, it does allow you flexibility. Mix the chocolate or vanilla powder, milk, or water and your favorite fresh or frozen fruit in the blender for a delicious, highprotein smoothie—a refreshing treat that's great for muscle recovery after a hard workout!

Pros: This kosher-certified product is high in fiber (7 g) and a great source of 22 vitamins.

Cons: Kashi GO LEAN Shake Mix contains the herbs Uva Ursi and Panax Ginseng (see FYI).

A This is another not-so-sweet option that tasted good. We mixed it with water so it wasn't too thick either.

Uva Ursi and Panax Ginseng

Uva Ursi was used to treat urinary tract infections before the discovery of modern antibiotics. Animal research has shown this herb to be antimicrobial and a diuretic, but human studies have not confirmed this. This herb should not be taken for longer than one week. Learn more.

Panax Ginseng has historically been used as a "cure-all," but this product claims it is a "natural energy booster." Both herbs should be avoided by pregnant women and individuals with high blood pressure. Learn more.

Slim-Fast Optima High-Protein Ready-to-Drink Shakes

Nutrition Facts

Serving Size: 11 oz	
Servings Per Cont	ainer: 1
alories 190 C	Calories from Fat 45
	% Daily Value
Total Fat 5g	8%
Saturated Fat 2g	10%
<i>Trans</i> Fat 0g	
Cholesterol 10mg	3%
Sodium 220mg	17%
Total Carb. 24g	8%
Dietary Fiber 5g	20%
Sugars 13g	
Protein 15g	
Calcium 50% • Vitamin D 35% • Vitamin K 25% • Riboflavin 35% • Vitamin B6 35% • Vitamin B12 35% • Pantothenic Acid 35% Iodine 35% •	6 • Phosphorus 50% Magnesium 35% Selenium 25%

Kashi GO LEAN Shake Mix

Nutrition Facts

Serving Size: 2 Scoops (60 grams)		
mixed with 8 oz of water		
Servings Per Con		
Calories 220	Calories from Fat 5	
	% Daily Value	
Total Fat 1 g	2%	
Saturated Fat 0	g 0%	
<i>Trans</i> Fat 0g		
Cholesterol 0mg	0%	
Sodium 120mg	5%	
Total Carb. 32g	11%	
Dietary Fiber 7	g 28%	
Sugars 23g		
Protein 21g		
	Vitamin C 50%	
Calcium 40% • Vitamin D 35% •	Iron 25% Magnesium 40%	
	Zinc 15%	
Vitamin K 25%	Selenium 25%	
	Copper 35%	
	Manganese 70%	
Niacin 35% Vitamin B6 35%	Molybdenum 35%	
Folic Acid 30%	Vitamin B12 35%	
Biotin 35% • Panto	othenic Acid 35%	
Phosphorus 40%		







supermarket

Comparison Chart of High Protein Drinks

Rankings based on the ratio of grams of carbohydrate to grams of protein.

Serving Size – 8 fl. oz.	Carb/Protein Ratio	Calories	Total Fat (g)	Saturated Fat (g)	Total Carbohy- drate (g)	Dietary Fiber (g)	Sugars (g)	Protein (g)
>4:1 carb/protein ratio								
Slim Fast Optima Powder*	9.0	110	3	0.5	18	5	6	2
Carnation Instant Breakfast Original Powder*	5.4	130	1	0	27	<1	20	5
Boost Smoothie	4.9	240	3	1	44	0	36	9
Ensure with Fiber	4.7	250	6	1	42	3	17	9
4:1 carb/protein ratio								
Ensure	4.4	250	6	1	40	1	22	9
Boost with Benefiber	4.2	240	4	1	42	3	20	10
Slim Fast	4.1	160	2	1	29	4	25	7
Boost	4.1	240	10	1	41	0	25	10
Horizon Organic Reduced Fat Strawberry Milk	3.9	200	5	3	31	0	31	8
Ensure Plus	3.8	350	11	2	50	<1	22	13
Odwalla Super Protein Original	3.5	190	1	0	35	1	29	10
3:1 carb/protein ratio	0.0	150	I	0		I	25	10
	2 4	170	0	n	07	.1	07	0
Horizon Organic Lowfat Chocolate Milk Carnation Instant Breakfast Original	3.4	170	3	2	27 29	<1	27	8
, , , , , , , , , , , , , , , , , , ,			4	1		1		
Power Bar Recovery Shake	3.2	180	4	1	29	1	28	9
Boost Plus	3.2	360	14	2	45	0	22	14
Ensure High Calcium	3.1	220	6	1	31	<1	21	10
Slim Fast Easy to Digest	2.7	130	4	1	19	2	15	7
Ensure High Protein	2.6	230	6	1	31	<1	21	12
Slim Fast Optima	2.6	140	5	2	18	4	13	7
Odwalla Super Protein Al'mondo	2.5	190	6	1	25	3	19	10
2:1 carb/protein ratio								
Carnation Instant Breakfast No Sugar Added Powder*	2.4	60	0.5	0	12	4	7	5
Odwalla Super Protein Chocolate	2.4	170	4	1	24	0	20	10
Cytosport Muscle Milk Collegiate Powder**	2.2	420	5	2	65	3	4	29
Champion Nutrition Metabolol II Powder*	2.2	260	3	1	40	1	15	18
Boost High Protein	2.2	240	6	1	33	0	18	15
Slim Fast High Protein Powder*	1.9	110	3.5	0.5	13	4	6	7
Slim Fast High Protein	1.5	140	4	2	17	4	9	11
Kashi GO LEAN Shake Mix*	1.5	220	1	0	32	7	23	21
1:1 carb/protein ratio								
Cytosport Muscle Milk Collegiate	1.5	180	6	2	19	<1	3	13
Horizon Organic Fat Free Milk	1.3	90	0	0	12	0	12	9
Carnation Instant Breakfast No Sugar Added	1.3	110	4	1	12	1	9	9
EAS Myoplex Lite	1.0	120	2	0	15	4		15
EAS AdvantEDGE Soy Protein Powder*	1.0	170	1	0	19	0	17	20
EAS Myoplex Lite Powder*	0.8	180	2	1	19	3	1	25
EAS Myoplex Original Powder*	0.5	280	3	1	23	3	2	42
<1:1 carb/protein ratio				I	-			
Cytosport Muscle Milk Original Powder**	0.5	220	9	4.5	12	4	3	23
Cytosport Muscle Milk Original	0.5	160	8	4.5	7	0	4	15
EAS Myoplex Original	0.5	140	3	0	9	3	<1	20
Cytosport Muscle Milk Light Powder**	0.4	140	4.5	2	8	<1	1.5	18
Cytosport Muscle Milk Light	0.4	140	4.5	1.5	8	<1	3	18
• • •	0.4	130	7	2	o	3	<1	
Atkins Advantage								11
Slim Fast Lower Carb	0.3	140	7	1	4	3	<1	15
Lean Body Hi-Protein Milk Shake	0.2	120	4	0	4	2	0	19
EAS AdvantEDGE Carb Control	0.2	80	2	0	2	1	<1	12
EAS 100% Whey Protein Powder*	0.1	120	2	1	3	<1	1	23
Cytosport Complete Whey Protein Powder*	0.1	90	2	1	1	0	1	18

*All nutrition info for powders based on suggested serving size + 8 oz Water

**Cytosport Powders are to be mixed with 10-12 oz of water - nutrition info based on 8 oz serving





Who should use protein drinks?

Recovery drinks, commonly referred to as protein shakes, can benefit anyone who is physically active. Consuming a combination of carbohydrates and protein after exercise replaces the fuel your body burned off during activity and allows your muscles to repair and rebuild.

When is the best time to use a protein

The best time is within 30 to 45 minutes of completing exercise. During this window, your heart rate is elevated and your blood is flowing quickly, making it easier for nutrients to reach your cells. Also, remember that liquids are easier to digest than whole food, so the nutrients in a beverage will enter your circulation faster. These drinks also can be used as a meal replacement or snack for athletes on the go.

How much protein do I need to consume?

Recommended Daily Amounts (based on body weight)	125 pounds	200 pounds
Recommended Daily Allowance* 0.8 g/kg (0.36g/lb)	45 g protein/day	72 g protein/day
Endurance Athlete** 1.0 to 1.6 g/kg (0.45 to 0.73 g/lb)	57 to 91 g protein/day	91 to 145 g protein/day
Intermittent Sports Athlete** 1.4 to 1.7 g/kg (0.64 to 0.77g/lb)	80 to 97 g protein/day	127 to 155 g protein/day
Strength/Power Athlete** 1.6 to 2.0 g/kg (0.73 to 0.91 g/lb)	91 to 114 g protein/day	145 to 181 g protein/day

*Recommended Daily Allowances are said to meet 97.5% of the adult population's needs.

**International Society of Sports Nutrition (ISSN) recommendations.

How much protein do I already consume?

Food and Serving Size	Grams of Protein
8-oz Milk	7 to 9
1 Whole Egg	7
1-oz Cheese	6 to 7
3-oz Ground Beef	21
3-oz Grilled Chicken Breast	27
3-oz White Tuna Canned in Water	20

Dietary guidelines recommend consuming 3 cups of low-fat or fat-free milk (or milk equivalents) and 5 to 6 oz of lean meat, poultry, fish, dry beans, eggs, or nuts per day. The dairy, meat, and bean groups are the main dietary sources of protein; however, protein also is found (in small amounts) in other foods such as bread, pasta, cereals, sauces, etc.

Do the math: 3 cup Milk (24 g) + 6 oz Meat (48 g) = 72 g protein

As you can see, meeting (or exceeding) protein recommendations is not hard to do! Most people get plenty of protein in their diet. Those who are at risk for consuming too little protein–and would therefore need a protein drink–are vegetarians, people recovering from surgery or injury, and very active individuals.

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supermarket savy.com



Protein Drinks for Athletes



How do I know which protein drink is right for me?

For the best recovery, choose a drink based on your training type and intensity and your body composition goals:

- 3 or 4:1 carb-to-protein ratio—endurance athletes or those who need to gain weight
- 2 or 3:1 carb-to-protein ratio—power athletes or those who desire weight maintenance
- 1 or 2:1 carb-to-protein ratio—those who want to decrease body fat during the off-season

Your body will use the carbohydrates to replace the glycogen (stored muscle fuel) that you just used during activity; the protein will be used to repair and rebuild muscle tissue damaged during training. Consistent and proper recovery will lead to increased endurance and lean mass over time.

If you are looking for a drink to use between meals, choose one that has a high protein and fiber content, a moderate amount of carbohydrates, and a small amount of fat. Protein, fiber, and fat help you to feel full longer.

Common Myths:

- There is no link between high levels of dietary protein and kidney disease or decreased bone mass in active, healthy individuals.
- Research also has shown that a high protein diet does not promote dehydration-consuming extra protein will not cause you to lose more water than you normally would lose during exercise. Remember to drink water often before, during, and after exercise to prevent dehydration.
- Research does not support the common misconception that soy protein lowers blood levels of testosterone or reduces lean body mass in males.

Make your own protein shake:

Chocolate Peanut Butter Banana Shake

Makes 1 serving (about 8 oz)

INGREDIENTS

- 3/4 c reduced-fat chocolate milk*
- 1 tbsp peanut butter
- 1/2 large, frozen banana (peel and place in plastic bag in the freezer until frozen)
- Add ice for texture, if desired.

*You can substitute a chocolate ready-to-drink shake, but the nutritional value will be different.

Tips:

- If you are using a protein powder, measure the powder into a shaker bottle and throw it in your gym bag. When you finish exercising, all you have to do is add water!
- For some variety, try mixing protein powder, milk or water, ice or frozen yogurt, and your favorite fresh or frozen fruit in a blender for a smoothie.
- If you are trying to gain weight or needs extra calories, try adding peanut butter or ice cream to your smoothie.
- You can make smoothies with ready-to-drink protein supplements; just leave out the milk or water.
- If protein supplements don't exactly fit into your budget, try a glass of milk!
- There are supplements available for vegetarians, lactose-intolerant individuals, and those with soy allergies-just be sure to check the labels.
- Just remember to drink something with carbohydrates and some protein after your workout.

DIRECTIONS

Pour chocolate milk into a blender. Add the peanut butter and blend on high until well blended. Add the banana and blend on low until smooth and frothy. Enjoy immediately. Nutrition Facts

Calories 310, Calories from Fat 110, Total Fat 12g, Saturated Fat 3g, Cholesterol 20mg, Sodium 260mg, Total Carbohydrate 43g, Dietary Fiber 3g, Sugars 34g, Protein 12g, Vitamin A 8%, Vitamin C 10%, Calcium 40%, Iron 2% (carb-to-protein ratio = 3.58:1)



Food Reviews



Kellogg's All-Bran Fiber Drink		
Ratin	ng	***
Clair	ns	High fiber
	gens	Soy, milk
\$	\$3.99/10 ½	2-oz packets
	\$4.99/6	1.4-oz bars
Distribution SM, DC, ND		
Ø	www	allbran.com



SILK PLUS

Rating	**
Claims	Soy protein, high
fiber,	Omega-3, calcium,
	lactose free
Allergens	Soy
\$	\$3.59 / ½ gallon
 Distrib 	ution SM, H/D, ND
Ø www.	silksoymilkplus.com/

Kellogg's All-Bran Fiber Drink

According to data from NHANES, only one in 10 Americans gets the recommended 25 to 30 g fiber each day. All-Bran, known for its highfiber cereals, is offering consumers even more convenient ways to up their fiber intake with new All-Bran Fiber Drink Mix and Fiber Bars. The drink mix contains polydextrose, a soluble fiber that provides 10 g fiber and 20 calories per serving. The instructions say to add one packet of mix (1/2 oz) to a 16.9-oz bottled water and shake. All-Bran Fiber Drink Mixes come in two flavors—Pink Lemonade and Iced Tea. The sweetener used is sucralose.

The All-Bran Fiber Bars are made from wheat bran, real fruit pieces, and whole-grain rolled oats. They also contain 10 g fiber and 120 to 130 calories in a 40 g bar. Flavors include Apple Cinnamon Streusel and Strawberry Drizzle.

Find these products in the health and nutrition aisles of the supermarket, which may be in the pharmacy department.



Kellogg's All-Bran Fiber

Drink - Ice Tea Mix

Nutrition Facts

Servings Per Container: 10

Calories from Fat 0

% Daily Value

0%

0%

0%

0%

4%

20%

• Vitamin C 0%

Iron 0% Vitamin B6 20%

Serving Size: 1 packet

(makes 16.9 oz)

Calories 20

Total Fat 0g

Saturated Fat 0g

Trans Fat 0g

Cholesterol 0mg

Sodium 5mg

Total Carb. 12g

Sugars <1g Protein 0g

Vitamin A 0%

Calcium 0%

Niacin 20%

Vitamin B12 20%

Dietary Fiber 10g

All-Bran Fiber Bars -Strawberry Drizzle Bar

Nutrition Facts Serving Size: 1 Bar (40g) Servings Per Container: 6 Calories 120 Calories from Fat 20 % Daily Value Total Fat 2.5g 4% Saturated Fat 1g 5% Trans Fat 0g Cholesterol 0mg 0% Sodium 160mg 7% Total Carb. 30g 10% Dietary Fiber 10g 40% Sugars 9g Protein 2g Vitamin A 0% • Vitamin C 0% Calcium 2% • Iron 8% Thiamine 10% Vitamin B6 10% Folic Acid 10% Vitamin B12 10%

Pros: The drink mix and bars provide 40% daily recommended value of fiber.

Cons: The drink mix has to be shaken vigorously to get it to dissolve.

/ It is hard to believe that this drink contains 10 g fiber. When shaken thoroughly, it is clear and has a pleasant, not-too-sweet taste.

Silk Plus

Now you can get added fiber and Omega-3s in Silk Soymilk. Unfortunately, these ingredients are not together in one carton. Silk Plus Fiber provides 5 g fiber per 8-oz serving, which is as much as a large apple or a bowl of oatmeal. Silk Plus Omega-3 DHA contains 370 mg ALA Omega-3 and 32 mg DHA Omega-3. Both Silk Plus Soymilks provide 6.25 g soy protein and 35% DV calcium, In addition, they are lactose-, dairy-, and cholesterol-free.

Pros: The Silk Plus Fiber provides 5 g fiber (20% DV) and the Silk Plus Omega-3 provides 370 mg ALA Omega-3 and 32 mg DHA Omega-3.

Cons: The total fat in the Omega-3 soymilk is 5 g; the Fiber soymilk has 3.5 g—equal to the amount of fat in whole milk.

Silk already has delivered great-tasting, high-quality products to health-conscious consumers. These new products are no exception.

Peapod Introduces Virtual Nutritionist

Check out the new NutriFilter on Peapod.com that essentially reads the food labels for you. It sifts through all the food products available online and highlights the ones that meet customers' nutritional needs, whether it's for gluten-free, peanut-free or low fat foods, or foods that meet other requirements, such as Kosher, organic, high or low fiber, or even as specific as high in vitamin C or calcium. You have the option of using 5 pre-set plans (gluten-free, peanut-free, USDA good fiber, USDA low-fat, and USDA low-sodium) or creating your own custom plan.

Silk Plus -Vanilla Plus Fiber

Nutrition Facts Serving Size: 8 oz (1 cup) Servings Per Container: 8 Calories 100 Calories from Fat 30 % Daily Value Total Fat 3.5g 5% Saturated Fat 0.5g 3% Trans Fat 0g Polyunsaturated Fat 2g Monounsaturated Fat 1g Cholesterol 0ma 0% 4% Sodium 95mg Potassium 300mg 8% Total Carb. 14g 5% Dietary Fiber 5g 20% Sugars 7g Protein 6g Vitamin A 10% Vitamin C 0% Calcium 30% Iron 6% Vitamin D 30% Riboflavin 30% Folate 6% Magnesium 10%





YoCalcium Yogurt Rating *** Claims High calcium, vitamin D, probiotics, organic Allergens Milk \$ \$0.89/6-oz cup • Distribution SM, H/N, ND [] www.stonyfield.com



SKINNY COW DIPPERS			
Rating **			
Claims Kosl	her, low calorie,		
	gluten free		
Allergens	Milk		
\$	\$4.99/12 pops		
Distribution SM, ND			
www.gettheskinny.com			

YoCalcium Yogurt

If you need to boost your calcium intake, consider YoCalcium Yogurt by Stonyfield Farm. They have increased the calcium in their yogurt to 50% DV in a 6-oz cup. In addition, YoCalcium contains 20% DV vitamin D and inulin, a natural dietary fiber; both are proven to help enhance calcium absorption. Like all Stonyfield Farm dairy products, YoCalcium is made with organic milk and has no artificial flavors, colors, or sweeteners. Flavors include Wild Berry, Strawberry, Raspberry, and Apricot Mango.

Pros: Excellent source of calcium (50% DV), vitamin D (20% DV), and protein (7 g). Made from organic, fat-free milk (0 g fat).

Cons: None

YoCalcium is creamy and tasty with just a hint of sweetness.

Skinny Cow Dippers

If you are looking for a sweet ending to a meal, try a Skinny Dipper. They are creamy and delicious and fairly low in calories (80) and fat (3 g) per bar. The calories and sugar levels are kept low with the addition of sucralose, an artificial sweetener. The fat is low because they are made with low-fat milk. They come in boxes of 12 bars in a combination of mint and vanilla or caramel and vanilla with a dipped, chocolate top.

Pros: Calorie-controlled (80 per pop) frozen dessert.

Cons: The challenge is to eat just one! The saturated fat is high at 2 g per pop.

My favorite is the mint. The chocolaty-dipped top is a treat.

Find MyPyramid Nutrition Labeling on ConAgra Products

ConAgra is launching its own front-of-the-package nutrition labeling system using a MyPyramid theme. Look for it on popular brands such as Healthy Choice, Chef Boyardee, and Orville Redenbacher's.



 Sodium 30mg
 1%

 Total Carb. 11g
 4%

 Dietary Fiber 2g
 4%

 Sugars 7g

 Protein 2g

Vitamin A 4% • Vitamin C 0% Calcium 6% • Iron 0%



KRAFT LIVEACTIVE			
Rating	**		
Claims	Prebiotics, fiber		
Allergens	Soy, wheat, milk, tree nuts		
\$	\$3.29 / 10 packets \$3.79 / 13-ox box		
Distribution SM, ND			
© www.kraftfoods			
	com/liveactivefoods		

Kraft Expands LiveActive Line in Post Cereal & Crystal Light

Kraft research shows that nearly two-thirds of Americans (64%) find maintaining good digestive health to be a greater challenge than maintaining a good credit score. With the expansion of the LiveActive line, it now is easier to help promote digestive health throughout the day with the addition of LiveActive Post Cereal and On The Go Drink Mixes from Crystal Light to their present offering of LiveActive Natural Cheese Snacks from Kraft and Live Active Cottage Cheese from Breakstone's/Knudsen (see reviews in SS September 2007). Both of these new LiveActive products provide 3 g of a probiotic fiber called inulin per serving. LiveActive Drink Mix is a 10-calorie beverage with 100% DV of vitamin C in an 8-oz serving and comes in Mixed Berry and Raspberry Peach flavors.

LiveActive cereal is a breakfast option that has crispy, whole-grain flakes and crunchy clusters of nuts, fruits, and berries. The lowest-fat choice is the Mixed Berry Crunch that contains 190 calories and 2 g fat in a $\frac{1}{2}$ -cup serving. The Nut Harvest Crunch is higher in calories (220) and fat (6 g) due to the addition of almonds, pecans, and walnuts--all healthy fats.



YoCalcium Yogurt -Wild Berry

Nutrition Facts

Serving Size: 6 oz
Convinge Der Conteiner

Servings rei Container. I		
Calories 120	Calories from Fat 0	
	% Daily Value	
Total Fat 0g	0%	
Saturated Fat 0	g 0%	
<i>Trans</i> Fat 0g		
Cholesterol 0mg	0%	
Sodium 135mg	6%	
Potassium 360m	g 10%	
Total Carb. 22g	7%	
Dietary Fiber <	1g 4%	
Sugars 21g	-	
Protein 7g		
	Iron 0%Vitamin B12 10%	

Skinny Cow Dippers

Calories from Fat 25 % Daily Value

5%

10%

1% 1%

Nutrition Facts Serving Size: 1 bar (38g)

Servings Per Container: 12

Calories 80

Total Fat 3g

Saturated Fat 2g

Trans Fat 0g Cholesterol 3mg

Nutrition Facts			
Serving Size: 5g (makes 16.9 fl oz)			
Servings Per Container: 14			
Calories 10	Calories from Fat 0		
	% Daily Value		
Tabal Eat An	00/		

stal Light LiveActiv

04.01100 10	ealeries herria e
	% Daily Value
Total Fat 0g	0%
Saturated Fat 0)g 0%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 20mg	1%
Total Carb. 3g	1%
Dietary Fiber 3	g 12%
Sugars 0g	
Protein 0g	
Vitamin A 0% Calcium 0%	 Vitamin C 100% Iron 0%

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Pros: All products contain 3 g inulin, a prebiotic fiber. The cereals are a great source of total fiber (7 to 8 g) and a good source of over 10 vitamins and minerals. The beverage mixes contain 100% DV vitamin C.

Cons: The beverages contain the artificial sweetener aspartame.

This is a great way to add fiber to your diet, and the prebiotics may help with digestive problems.

Protein Drinks for Athletes - contiuned from page 5.

Who should use protein supplements?

Most Americans consume close to 1.5 g protein per kilogram of body weight per day. That's almost twice the RDA (0.8 g/kg/day) for protein! For the most part, only people who are very active or who are strict vegetarians run the risk of consuming too little protein.

Is consuming too much protein dangerous?

You may have heard that eating too much protein can damage your kidneys, cause dehydration, and/or affect bone mass. However, according to a study published in Nutrition and Metabolism (2005), there is no link between high levels of dietary protein and kidney disease or decreased bone mass in healthy individuals. The study also says that dietary protein does not cause dehydration in excess of normal losses during exercise (but it still is important to stay hydrated). Eating too much protein can be harmful for persons with pre-existing kidney disease, but a high protein diet will not increase the risk of impaired kidney function. Access research.

Resources for Sports Nutrition

Joint position statement of the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine:

"Medicine and Science in Sports and Exercise." Nutrition and Athletic Performance. 32.12 (Dec. 2000): 2130-2145. Read Position Statement.

Caffeine Candy & Gum

You may find more than sugar in the candy or gum you purchase. Buzz-inducing candy and gum, spiked with caffeine are the candy, gum, and chocolate industry's answer to the surging competition from energy drinks. Some bars like LaraBar's Jocalate, ThinkThin Chocolate Mudslide, Clif Nectar Cacao, or even Coffee Nibs fail to give the amount of caffeine even though they do list coffee or caffeine in their ingredient list. An 8 oz cup of coffee can contain between 65 to 200 mg of caffeine while a can of Red Bull energy drink has 75 mg. Compare this to the candies and gums listed below.

	Caffeine
Crackheads	120 mg/1.3 oz box
Foosh Energy Mints (Vroom)	100 mg/mint
Buzz Bites (Vroom)	100 mg/chew
Jolt Gum	75 mg/2 tablets
Mad Croc Energy Gum	75 mg/2 pieces
Snickers Charged (Mars)	60 mg/bar
Jelly Belly Extreme Sports Beans	50 mg/1 oz
Clif Bar Peanut Toffee Buzz	50 mg/bar
Ice Breaker Energy (Hershey)	30 mg/3 mints



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LiveActive, Post Mixed Berry Crunch

Nutrition Facts Serving Size: 1/2 cup (55g) Servings Per Container: about 7 Calories 190 Calories from Fat 15 % Daily Value Total Fat 2g 3% Saturated Fat 0g 0% Trans Fat 0g Polyunsaturated Fat 0.5g Monounsaturated Fat 0.5 g Cholesterol 0mg 0% Sodium 250mg 10% Total Carb. 43g 14% Dietary Fiber 7g 28% Sugars 12g Protein 4g Vitamin A 15% • Vitamin C 0% Calcium 0% Iron 45%

Vitamin D 10% • Thiamine 25%

Vitamin B6 25% · Folic Acid 50%

Vitamin B12 25% Phosphorus 15%

Riboflavin 25% • Niacin 25%

Thank you to Tara Fernandez, University of Houston Dietetic Intern, for assistance in researching and writing information on protein drinks and supplements for athletes.

supermarket