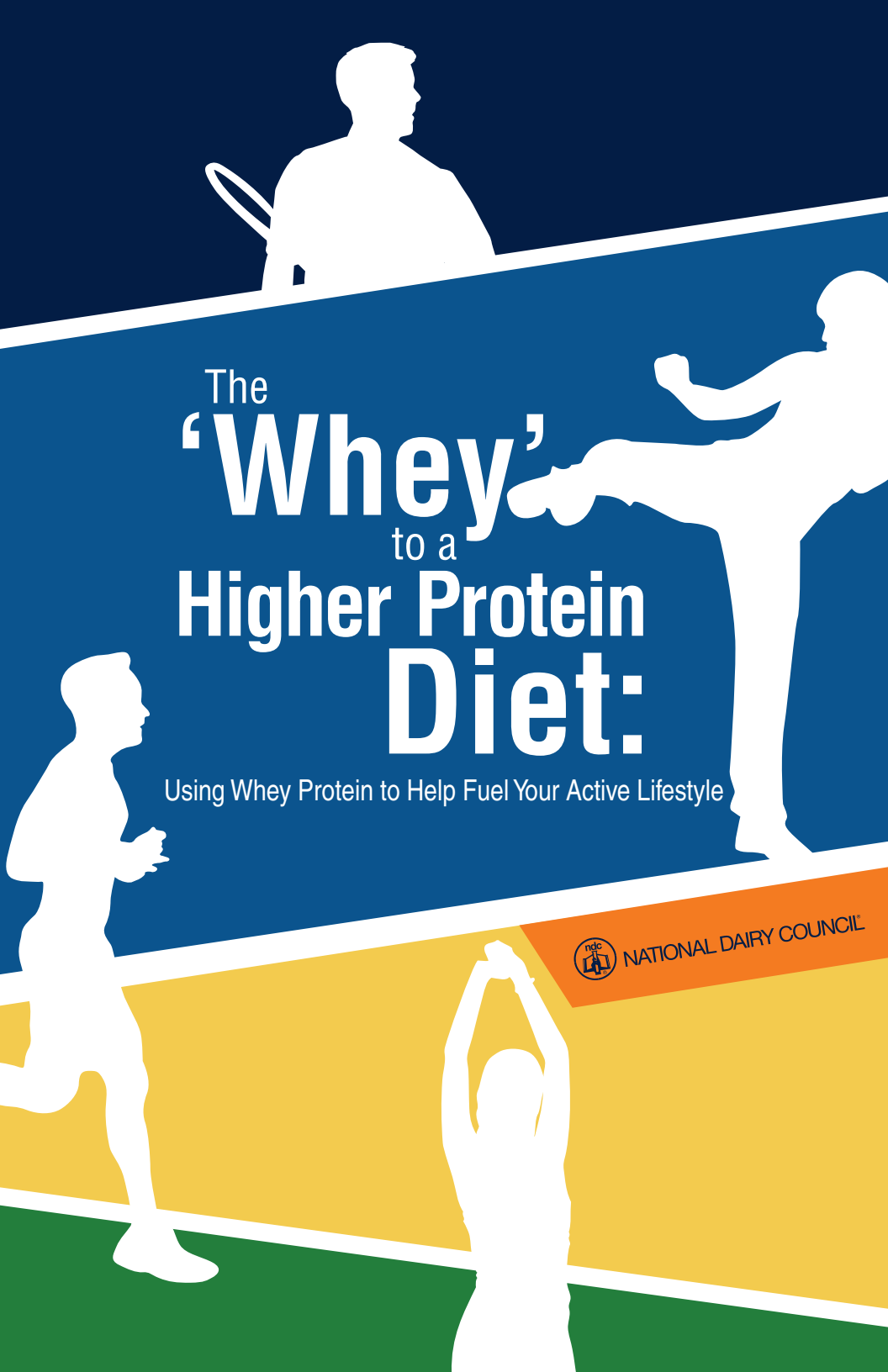

The
'Whey'
to a
Higher Protein
Diet:
Using Whey Protein to Help Fuel Your Active Lifestyle
NATIONAL DAIRY COUNCIL

The **Power** of WHEY PROTEIN

Protein is an essential nutrient your body needs every day. The amino acids that make up protein are often referred to as the "building blocks of life" because they serve so many important functions in the body. Beyond its well-known role in building and repairing lean muscle, protein controls many metabolic processes in the body. Protein also helps repair body cells and it helps build and maintain bones.

How is whey protein made?

Whey is one of two major proteins found in cow's milk. Whey protein is produced during the process of making cheese, which begins when special enzymes are added to milk causing it to separate. The curds are used to make cheese, leaving behind whey protein in the liquid portion. This liquid whey is then pasteurized and dried into a powder for various uses.

Michael Saunders, PhD, Associate Professor and Director of the Human Performance Laboratory, James Madison University

The Power of Protein

Including enough protein, like high-quality whey protein, in your diet may help you:

- Get more out of your exercise routine by speeding the rebuilding of muscle after working out.[1-5]
- Improve the quality of your weight loss by helping maintain muscle and/or increase body fat loss, when following a healthy, reduced-calorie diet.[6-11]
- Experience greater satiety, or a feeling of fullness, which can help curb snacking and over-eating.[12,13]

In a joint position statement, "Nutrition and Athletic Performance," the American College of Sports Medicine (ACSM), the American Dietetic Association (ADA), and the Dietitians of Canada (DC) state that "physical activity, athletic performance, and recovery from exercise are enhanced by optimal nutrition."[14] Using the latest scientific research, the position statement outlines specific nutrition recommendations, including daily protein intake, for optimal health and exercise performance. Experts agree that athletes and individuals who exercise regularly may benefit from higher protein intakes beyond the minimum requirements outlined by the Recommended Dietary Allowance (RDA).[14] This booklet is designed to help you learn how you can reach this optimal level of protein in your diet.

How does whey protein compare to other protein sources, including soy protein?

Whey protein is a high quality, nutritionally complete protein that is rapidly digested and absorbed. Compared to many other proteins, on a gram-to-gram basis, whey protein delivers more branched-chain amino acids, including leucine, which is important for muscular health.

Stuart Phillips, PhD, Professor, McMaster University

Choose Protein Wisely

Many foods contain protein, but the amount and quality of this protein varies. High-quality protein sources include meat, fish, poultry, eggs, milk, cheese, yogurt, and whey protein. These foods supply the complete range of essential amino acids the body needs to build and maintain muscle and to function properly. For this reason, protein found in animal-based foods is referred to as "complete" protein. Protein found in most plant foods, including legumes (beans and peas), seeds, nuts, vegetables, and grain products, lacks some of the essential amino acids needed daily and is therefore considered an "incomplete" protein.

How Much Protein?

You can estimate your recommended daily protein intake using your body weight. Most people need at least 0.4 grams of protein for every pound of body weight to meet basic protein requirements.[15] If you regularly engage in endurance exercise or strength training, you may benefit from up to twice this amount.[14]

Emerging research shows older Americans may be able to reduce the age-related decline of muscle mass by engaging in resistance training and consuming higher than the RDA for protein.[16, 17]

Use the following chart to find out how much protein is recommended to help you achieve optimal exercise and health benefits. Calculate your recommended protein intake based on the type of exercise you do most often.

If you are:	Multiply your body weight (in pounds) by:
A recreational exerciser[18]	0.5-0.7 g/lb
An endurance athlete[14]	0.5-0.8 g/lb
A strength training athlete[14]	0.5-0.8 g/lb
An athlete restricting calories[18]	0.8-0.9 g/lb

Calculate your recommended daily protein intake based on your exercise routine:

_____	x	_____	=	_____
Weight (lbs)		Recommended grams of protein per pound		Grams of protein per day

Should I be concerned about getting too much protein?

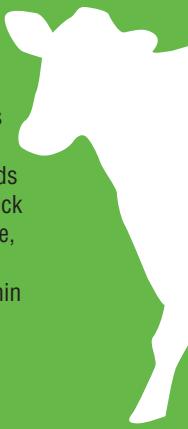
The Institute of Medicine recommends that 10 to 35 percent of the total calories we consume each day should come from protein.[15] Although most people meet minimum protein requirements at the low end of this recommended range, many more would benefit from a moderately higher protein intake. Active individuals and older adults in particular should be encouraged to follow the MyPyramid recommendations (20-25 percent of calories from protein) and include a moderate amount of high-quality protein with each meal.

Douglas Paddon-Jones, PhD, Associate Professor, The University of Texas Medical Branch

Can I get enough high-quality protein by eating more meat, chicken, fish, and dairy foods?

Healthy diets should regularly include high-quality, lower fat sources of protein, including low-fat and fat-free dairy foods, lean meats, chicken, fish, and eggs. To find out how many servings of these foods you need each day based on your age, gender, and activity level, check out www.MyPyramid.gov. Depending on your typical exercise routine, however, you may benefit from additional protein. Eating additional servings of these foods or consuming whey protein and staying within daily calorie allotments are both options. Whey protein offers an easy way to obtain additional protein without adding excess fat.

Dan Benardot, PhD, Professor of Nutrition, Professor of Kinesiology & Health, Georgia State University



Getting Enough Calories to Meet Your Energy Needs: An Important Factor in Helping You Achieve Your Fitness Goals

To help ensure that protein in your diet is being used to repair and build muscle, it's important that your diet supplies enough calories to give you the energy needed to fuel exercise. If your calories are too low, your body may burn protein as a source of energy instead of allowing protein to serve its primary role as the building blocks for your body's muscles, cells, and organs. To get a quick estimate of your calorie needs, go to www.MyPyramid.gov. Click on "MyPyramid Menu Planner" and enter your age, gender, weight, height, and activity level. You'll also get a recommended daily meal pattern for your calorie needs. Or consider consulting a registered dietitian (RD) specializing in sports nutrition for a more thorough assessment of your daily calorie and protein needs.

To compare your recommended daily protein intake to the amount of protein you're currently eating, go to www.nationaldairycouncil.org/wheyprotein and click on the downloadable worksheet, *Assessing Your Daily Protein Intake*.

Why Whey Protein?

Whey protein is a high-quality protein found naturally in dairy foods. As a complete protein, whey protein provides the amino acids you need to help maximize the benefits of your training program.[1,19-23] Whey protein is one of the best sources of the amino acid, leucine, which is a type of branched-chain amino acid (BCAA). Most amino acids are first metabolized in the liver and then the muscle tissue, but BCAAs, like leucine, bypass the liver so they can be metabolized directly by muscle tissue. These amino acids play a key role in promoting muscle growth. Research has shown that leucine is unique and acts as a nutrient signal to "turn-on" or initiate protein synthesis in muscle. As a result, researchers have suggested that individuals who exercise regularly may benefit from diets higher in leucine to help speed the rebuilding of muscle after working out.[24,25] One way to do this is to include protein that is high in leucine, such as whey protein, in your daily diet.

What is hydrolyzed whey protein?

When whey protein is hydrolyzed, the protein chains are broken down into smaller chains of amino acids called "peptides." Hydrolyzed whey protein is still a high-quality protein. It is most commonly used in infant formulas, medical protein supplements, and some sports drinks.

Nancy Rodriguez, PhD, RD, CSSD, FACSM, Professor, Nutritional Sciences, University of Connecticut

What is the difference between whey protein concentrate and whey protein isolate?

Both types of whey protein are manufactured by drying pasteurized liquid whey. The main difference is that whey protein isolate contains a higher concentration of protein per gram because other ingredients, including lactose, fat, and some vitamins and minerals, are removed. Both offer health benefits and are used in various foods and powders that provide whey protein.

David Baer, PhD, Research Physiologist, USDA, ARS Beltsville Human Nutrition Research Center

How to Add Whey Protein

Research shows that paying attention to when and how much whey protein you consume can enhance your exercise results. Eating high-quality protein, like whey protein, close to your workout, either before or after you exercise, may provide optimal benefits.[4, 26,27] As little as 10 grams of whey protein in a carbohydrate beverage consumed after exercise has been shown to stimulate the rebuilding of muscle.[19] Whey protein is easy to digest and provides rapid "nourishment" for your muscles. It also offers an easy way to reach your daily protein goal without adding excess carbohydrates and fat.

Where to Find Whey Protein

Whey protein can be found in powders, drink mixes, energy bars, yogurt, and other foods. To find out if a product contains whey protein, check the ingredient list. Products with whey protein as a primary source of protein will list "whey protein isolate," "whey protein concentrate," or "hydrolyzed whey protein" near the beginning of the ingredient list. However, when referring to the Nutrition Facts panel on the label, the grams of protein will include all protein sources, not only whey.

INGREDIENTS: PROTEIN BLEND [{WHEY PROTEIN CONCENTRATE, WHEY PROTEIN ISOLATE, HYDROLYZED WHEY PROTEIN}, SOY PROTEIN ISOLATE], MILK CHOCOLATE FLAVORED COATING (SUGAR, PALM KERNEL OIL, NONFAT DRY MILK SOLIDS, COCOA POWDER, SOY LECITHIN, SALT, NATURAL FLAVOR), INULIN (CHICORY EXTRACT), VEGETABLE GLYCERIN, PEANUTS, CARAMEL (CORN SYRUP, SUGAR, NONFAT MILK, FRACTIONATED PALM KERNEL OIL, CREAM, MILK PROTEIN, NATURAL FLAVOR)...

Sample ingredient list

Examples of Food Sources	Approximate whey protein* (g)
Whey protein powder, 1 scoop	16-24
Protein bars	15-30
"Protein water" drinks and mixes	5-20
Sports drinks and mixes with whey protein	6-30
Instant oatmeal with whey protein ("weight control" variety)	5-7

**Amounts vary by product and serving size.*

Everyday Ways to Enjoy Whey Protein

Try the following tips and recipes on pages 10–16 for adding whey protein powder to everyday foods you enjoy. Whey protein powder is available flavored or unflavored.

- Add ½ to 1 scoop of whey protein powder to:
  - Any milk-based beverage or food, such as milk, yogurt, pudding, custard, cottage cheese, oatmeal, milkshakes, smoothies, or cocoa. Use a vanilla- or chocolate-flavored powder to boost flavor.
- Add 2 or more scoops of whey protein powder to foods with multiple servings (estimate ½ to 1 scoop per serving), such as:
  - Mixes for muffins, pancakes, waffles, quick bread, and cookies.
  - Soups and casseroles, chili, mashed potatoes, pasta or rice side dishes, scrambled eggs, meatloaf, hamburger patties, gravies, and sauces.

Recipes

‘Whey-cool’ smoothie recipes

Pomegranate Berry Blast Smoothie

Makes 1 serving

6 oz low-fat vanilla yogurt (or any fruit flavor)

½ cup pomegranate juice, unsweetened

½ cup berries (strawberries, blueberries, raspberries), fresh or frozen, unsweetened

1 scoop whey protein powder, unflavored or vanilla-flavor

Crushed ice (optional)

Combine in a blender until smooth.

NUTRITION INFORMATION PER SERVING: 390 calories, 27 g protein (including 21 g whey protein), 62 g carbohydrate, 2 g fiber, 4 g fat, 2 g saturated fat, 250 mg sodium

Also contains: vitamin A, vitamin C, vitamin D, calcium, phosphorus, potassium

Variations:

- Use fat-free yogurt to save 70 calories
- For extra protein and flavor, add 2 tablespoons sliced almonds (add 70 calories, 6 g fat, 2 g protein)

If I’m sensitive to lactose, should I avoid whey protein?

If you are lactose intolerant, or sensitive to lactose, the natural sugar found in milk products, you may be able to tolerate whey protein isolate, which contains very little lactose. The amount of lactose in whey protein concentrate is higher. As always, it is important to contact the manufacturer as lactose content can vary from product to product.

Christopher Mohr, PhD, RD, CSSD, Owner, Mohr Results, Inc.

'Whey-cool' smoothie recipes

Choco-Banana Power Smoothie

Makes 1 serving

1 cup fat-free milk

1 small banana, fresh or frozen

1 scoop whey protein powder, chocolate-flavor

Crushed ice (optional)

Combine in a blender until smooth.

NUTRITION INFORMATION PER SERVING: 300 calories, 29 g protein (including 20 g whey protein), 40 g carbohydrate, 4 g fiber, 3 g fat, 1.5 g saturated fat, 190 mg sodium

Also contains: vitamin A, vitamin B6, vitamin B12, vitamin C, vitamin D, riboflavin, calcium, magnesium, phosphorus, potassium

Variations:

For extra protein and flavor, add 1 tablespoon peanut butter (add 95 calories, 8 g fat, 4 g protein)

Citrus Fizz

Makes 1 serving

12 oz diet soft drink, lemon-lime or citrus flavor

½ scoop whey protein powder, unflavored

½ packet (approx. ½ tsp) sugar-free lemonade or citrus drink mix

Combine with crushed ice.

NUTRITION INFORMATION PER SERVING: 70 calories, 11 g protein (whey protein), 1 g carbohydrate, 0 g fiber, 1 g fat, 0.5 g saturated fat, 80 mg sodium

Does whey protein have a gritty or unpleasant taste like some other protein powders?

Whey protein has a clean, neutral flavor. When used in food manufacturing, it adds little or no taste. Whey protein dissolves easily in liquids and does not have a gritty mouth feel.

Leslie Bonci, MPH, RD, LDN, CSSD, Director of Sports Nutrition, University of Pittsburgh Medical Center

'Whey-cool' smoothie recipes

Mango-Pineapple Slushie

Makes 1 serving

- ½ cup fresh or frozen mango
- ½ cup pineapple, canned in juice, drained
- ¼ cup pineapple juice (drained from canned pineapple)
- 1 scoop whey protein powder, unflavored or vanilla-flavor
- Crushed ice

Combine in a blender until smooth.

NUTRITION INFORMATION PER SERVING: 280 calories, 22 g protein (including 21 g whey protein), 45 g carbohydrate, 3 g fiber, 2.5 g fat, 1 g saturated fat, 160 mg sodium

Also contains: vitamin A, vitamin C, calcium, potassium

Cappuccino Cooler

Makes 1 serving

- 1 cup black coffee, room temperature
- ¼ cup fat-free half & half
- 1 scoop whey protein powder, unflavored or vanilla-flavor
- 1 packet low-calorie sweetener (optional)
- Crushed ice

Combine in a blender until smooth, or mix well in a glass or shaker cup.

NUTRITION INFORMATION PER SERVING: 150 calories, 23 g protein (including 21 g whey protein), 7 g carbohydrate, 0 g fiber, 3 g fat, 1.5 g saturated fat, 250 mg sodium

Also contains: calcium

‘Whey-to-go’ Recipes
for people on the go

Revved Up Pumpkin-Cranberry Muffins

Makes 16 muffins

⅓ cup vegetable oil

¾ cup brown sugar, packed

¼ cup fat-free milk

¾ cup whey protein powder, unflavored or vanilla-flavor (about 3 scoops)

2 large eggs

1 15-oz can pure pumpkin

1 cup flour

1 cup whole wheat flour

2 tsp baking powder

½ tsp baking soda

1 tsp cinnamon

½ tsp ginger

¼ tsp salt

½ cup dried cranberries

Chopped pecans (optional)

1. Preheat the oven to 375˚F. Coat a 12-cup muffin pan with vegetable oil cooking spray or paper liners.
2. In a large bowl, combine the oil, brown sugar, milk, and whey protein powder.
3. Add the eggs, mixing well after each; stir in the pumpkin.
4. Add the flours, baking powder, baking soda, salt, and spices. Mix just until combined.
5. Gently fold in the dried cranberries. Spoon the batter into prepared muffin pan.
6. Sprinkle the tops with cinnamon and, if desired, chopped pecans. Bake until lightly browned, about 20 minutes.

NUTRITION INFORMATION PER MUFFIN: 180 calories, 7 g protein (including 4 g whey protein), 27 g carbohydrate, 2 g fiber, 6 g fat, 0.5 g saturated fat, 180 mg sodium

Also contains: vitamin A

Does whey protein contain gluten or wheat protein?

Whey protein does not contain any wheat protein or gluten. However, whey protein bars and beverages often contain added wheat-based ingredients, so be sure to check the ingredient list.

Bob Seebohar, MS, RD, CSSD, CSCS, Sport Dietitian, Fuel4mance, LLC

‘Whey-to-go’ Recipes
for people on the go

Energy Booster Bars

Makes 15 bars

- 1 cup quick-cooking oats
- ½ cup unsalted sunflower seeds
- 1 cup whey protein powder, unflavored or vanilla-flavor (about 4 scoops)
- ½ cup whole wheat flour
- ⅓ cup sliced almonds
- 2 tbsp ground flax seed
- ½ cup dried blueberries or cherries
- 2 tbsp vegetable oil
- 2 large eggs
- ⅓ cup pure maple syrup
- ¼ cup mini-chocolate chips

1. Preheat oven to 350˚F. Coat a 9x13-inch pan with vegetable oil cooking spray.
2. Combine oats, sunflower seeds, whey protein powder, flour, almonds, flax seed, and dried blueberries in a food processor and pulse until coarsely chopped; transfer to a medium bowl. For chunky bars, just combine ingredients in a medium bowl.
3. Whisk together the oil, syrup, and eggs and add to the oatmeal mixture. Stir until dry ingredients are moistened. Add chocolate chips and stir.
4. Gently press into greased pan; batter will be sticky. Bake until lightly browned around the edges, about 15–20 minutes. Cool and cut into 15 bars (1½˝ x 4˝).

NUTRITION INFORMATION PER BAR: 190 calories, 10 g protein (including 6 g whey protein), 21 g carbohydrate, 3 g fiber, 8 g fat, 1.5 g saturated fat, 150 mg sodium

Is whey protein easy to digest?

Whey protein has a high biological value, which means it is easy to digest and is efficiently used by the body. It is absorbed quickly and provides important essential amino acids needed to nourish muscles and other body tissues.

Wayne Campbell, PhD, Professor, Department of Foods & Nutrition, Purdue University

‘Whey-to-go’ Recipes
for people on the go

Mushroom Swiss Meatball Soup

Makes 6 servings,
about 2 cups per serving

- 1 tbsp vegetable oil
- ½ cup chopped onion
- ½ cup chopped celery
- 8 oz chopped mushrooms, or 8 oz canned mushrooms, drained
- 1 can cream of mushroom soup, 94% fat-free, reduced sodium
- 3 cups beef broth
- 1 cup fat-free milk
- ½ cup whey protein powder, unflavored (about 2 scoops)
- 1 tbsp flour
- 1 cup shredded Swiss cheese
- Beef meatballs (see recipe below)

1. Add oil to large pot and saute onions and celery until tender, about 5 minutes.
2. Add chopped mushrooms and cook until softened.
3. Stir in mushroom soup and beef broth.
4. Whisk together milk, whey protein powder, and flour until smooth. Add to soup and simmer gently until thickened, about 10 minutes.
5. Add meatballs and simmer until heated through. Remove from heat and stir in Swiss cheese. Season with salt and pepper as desired.

Beef Meatballs

Makes about 28 meatballs,
4-5 meatballs per serving

- 1 pound 90% lean ground beef
- ½ cup chopped onions
- ½ cup bread crumbs
- ½ cup whey protein powder, unflavored (about 2 scoops)
- 2 egg whites
- ½ tsp salt

1. Preheat oven to 350˚F. Line a 15˝ x 10˝ pan with foil. Spray lightly with vegetable oil cooking spray.
2. Combine all ingredients in a bowl.
3. Form gently into 1-inch meatballs and place on pan.
4. Bake until cooked through, about 15 minutes.

Time-saving tip: Use frozen beef meatballs.

NUTRITION INFORMATION PER SERVING: 350 calories, 39 g protein (including 14 g whey protein), 14 g carbohydrate, 1 g fiber, 15 g fat, 7 g saturated fat, 840 mg sodium

Also contains: vitamin B12, niacin, calcium, iron, magnesium, potassium, zinc

‘Whey-to-go’ Recipes
for people on the go

Creamy Caramel Dip for Fruit

Makes 2 cups, about 8 ¼-cup servings

- 8 oz reduced-fat cream cheese (Neufchatel)
- ¾ cup whey protein powder, unflavored or vanilla-flavor (about 3 scoops)
- ½ cup plain fat-free yogurt
- ½ cup brown sugar
- 2 tsp vanilla

Combine all ingredients in a medium bowl and beat with an electric mixer until smooth and creamy. Serve immediately with your favorite fruits, or refrigerate.

Variation:

For extra flavor and protein, add ⅓ cup ground almonds (add 20 calories, 2 g fat, 1 gram protein)

NUTRITION INFORMATION PER ¼-CUP SERVING: 170 calories, 12 g protein (including 8 g whey protein), 16 g carbohydrate, 0 g fiber, 7 g fat, 4.5 g saturated fat, 200 mg sodium

Also contains: calcium

Is whey protein a good source of calcium?

Whey protein contains calcium, but the amount is fairly low and varies by product. Your best option for meeting your calcium needs (1,000 milligrams for ages 19-50 years; 1,200 milligrams for 51+ years) is consuming three servings of low-fat and fat-free dairy foods each day. Each serving provides about 300 milligrams of calcium; 1 serving equals 1 cup of milk or yogurt, 1 ½ ounces of natural cheese, or 2 ounces of processed cheese.

Susan Kundrat, MS, RD, CSSD, LDN, President, Nutrition on the Move, Inc.

Meal Plans

Sample Meal Plans with Whey Protein

The following examples show how to create daily menus at different calorie levels that meet the recommended amounts of food from each food group—and provide ample protein—without exceeding calorie goals. Remember that your calorie needs may vary from day to day depending on the intensity and length of your workouts.

SAMPLE MENU

1,800 CALORIES

	WHEY PROTEIN (GRAMS)
BREAKFAST:	
Whole wheat bagel (2 oz)	
Peanut butter (2 tbsp)	
Banana (1 small)	
Fat-free milk (1 cup)	
LUNCH:	
Tuna salad pita sandwich	
Tuna canned in water (3 oz)	
Light mayonnaise (2 tbsp)	
Whey protein powder (½ scoop)	**10 g**
Lettuce leaf	
Pita pocket bread (1)	
Baby carrots (½ cup)	
Orange juice (1 cup)	
DINNER:	
Whole grain pasta (1 cup)	
Marinara sauce (½ cup)	
Mixed greens (2 cups)	
Chopped tomatoes (¼ cup)	
Chopped cucumbers (¼ cup)	
Light Italian dressing (2 tbsp)	
Fat-free milk (1 cup)	
PRE- OR POST-WORKOUT SNACK:	
Energy Booster Bar* (1)	**6 g**
Fat-free milk (1 cup) mixed with **chocolate-flavored whey protein powder** (½ scoop)	**10 g**

*See recipes on pages 10–16.

SAMPLE MENU

2,200 CALORIES

	WHEY PROTEIN (GRAMS)
BREAKFAST:	
Egg sandwich	
Cooked egg (1)	
American cheese (.75 oz slice)	
Whole grain English muffin (1)	
Grapefruit (½)	
Low-fat milk (1 cup)	
LUNCH:	
Mushroom Swiss Meatball Soup* (2 cups)	**14 g**
Breadstick (2 oz)	
Cantaloupe cubes (1 cup)	
Revved Up Pumpkin-Cranberry Muffin* (1)	**4 g**
Diet lemonade	
DINNER:	
Baked halibut (3 oz)	
Baked sweet potato (1 medium)	
Whipped butter (1 tbsp)	
Green beans (½ cup)	
Cornbread (1 piece, 2 oz)	
Baby spinach (3 cups)	
Mandarin oranges (½ cup)	
Chopped walnuts (½ oz)	
Balsamic vinaigrette (3 tbsp)	
Low-fat milk (1 cup)	
PRE- OR POST-WORKOUT SNACK:	
Cappuccino Cooler*	**21 g**

*See recipes on pages 10–16.

SAMPLE MENU

2,600 CALORIES

	WHEY PROTEIN (GRAMS)
BREAKFAST:	
"Weight control" instant oatmeal (¾ cup)	**5 g**
Whey protein powder (½ scoop)	**10 g**
Fat-free milk (1 cup)	
Low-fat fruit yogurt (6 oz)	
SNACK:	
Strawberries (1 cup)	
Protein water (2 cups)	**5 g**
Blueberry muffin (1 medium)	
LUNCH:	
Chef's Salad	
Romaine lettuce (3 cups)	
Feta cheese crumbles (1 oz)	
Turkey breast (1 oz)	
Sliced hard-boiled egg (1)	
Ranch dressing (3 tbsp)	
Croutons (1 oz)	
Whole wheat roll (1)	
Flavored water	
DINNER:	
Beef fajitas	
Lean beef sirloin (3 oz)	
Vegetable oil (1 tsp)	
Whole wheat flour tortillas (2)	
Sliced peppers & onions (1 cup)	
Sliced avocado (½ cup)	
Shredded Monterey jack cheese (¼ cup)	
Spanish rice (1 cup)	
Iced tea	
PRE- OR POST-WORKOUT SNACK:	
Mango-Pineapple Slushie*	**21 g**

*See recipes on pages 10–16.

SAMPLE MENU

3,000 CALORIES

	WHEY PROTEIN (GRAMS)
BREAKFAST:	
Buttermilk pancakes (3)	
Light maple syrup (3 tbsp)	
Hard-boiled egg (1)	
Grapefruit (½)	
Low-fat milk (1 cup)	
SNACK:	
Microwave popcorn, 94% fat free (3 cups)	
Choco-Banana Power Smoothie*	**20 g**
LUNCH:	
Mushroom Swiss Meatball Soup* (2 cups)	**14 g**
Soft breadsticks (2)	
Cantaloupe cubes (1 cup)	
Oatmeal raisin cookie (1)	
Diet lemonade	
DINNER:	
Broiled pork chop (4 oz)	
Mashed potatoes (1 cup)	
Steamed broccoli (1 cup)	
Whole-grain roll (1)	
Whipped butter (1 tbsp)	
Baby spinach (3 cups)	
Chopped mushrooms (½ cup)	
Balsamic vinaigrette (3 tbsp)	
Low-fat milk (1 cup)	
PRE- OR POST-WORKOUT SNACK:	
Energy Booster Bar* (1)	**6 g**
Apple (1 medium)	
Creamy Caramel Dip* (¼ cup)	**8 g**

*See recipes on pages 10–16.

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