



## EAT MORE BEANS!... BUT WHY?

### Beans: The Powerhouse Food!

Beans may be small, but they pack a mighty punch, nutritionally speaking. Beans are an excellent source of both complex carbohydrates and protein, they are naturally low in fat and are cholesterol-free, and they are an excellent source of fiber. Beans are also a good source of important micronutrients including iron, zinc, and folate. Besides the health benefits, beans are versatile and delicious! There are many types of beans to choose from, and they can be used in soups, stews, burritos, veggie burgers, casseroles, and even salads. In addition to improving your health and thrilling your taste buds, beans are a perfect food for fueling an active lifestyle.

#### Carbohydrates

Carbohydrate-rich foods form the foundation of an athlete's diet. They provide us with energy for working muscles and fuel for mental focus during exercise and competition. Carbohydrates are also essential for restoring muscle glycogen after exercise. The American College of Sports Medicine (ACSM) along with the American Dietetic Association (ADA) recommends that athletes consume 2.7-4.5 grams of carbohydrate per pound of body weight each day. For a 130-pound athlete, this recommendation equates to 351-585 grams of carbohydrate every day. A half cup serving (35 g) of beans provides approximately 20 g of carbohydrates and only 130 calories. Because they are a carbohydrate-rich food, beans will help you to achieve your carbohydrate needs quickly and easily.

#### Protein

Protein is essential for growth, maintenance, and repair of bodily tissues. Lean, protein-rich foods, such as beans, help to keep maintain or build muscle mass. Protein also helps keep you full and satisfied in-between meals. The ACSM and ADA recommend 0.5-0.8 grams of protein per pound of body weight each day. For a 130-pound athlete, this recommendation equates to 65 to 104 grams of protein each day. There are approximately 7 grams of protein in one ½ cup serving of beans, providing 7-11% of your daily value for protein.

#### Fiber

Fiber is an indigestible carbohydrate found in plant foods, including beans. Fiber strengthens muscles of the digestive tract, and slows digestion, helping to maintain energy levels during exercise. Beans are a high fiber food; a ½ cup serving provides between 8 and 11 grams of fiber!

#### Fiber Needs:

	18-50 years of age	50+ years of age	From Beans (1/2 cup)
Men	38 g/day	30 g/day	21-37% DV
Women	25 g/day	21 g/day	32-52% DV

g = gram;

DV = Daily Value



## Vitamins and Minerals

Vitamins and minerals are needed for energy metabolism and proper body function. Minerals are needed for many cell processes and building new cells. Vitamins are essential for proper cell function, and help keep the body healthy and running strong. Beans are a good source of both vitamins and minerals. Depending on the type of bean consumed, a ½ cup serving can provide a significant amount of the following essential micronutrients:

Mineral	RDA*	Function	From Beans (1/2 cup)
Iron	18 mg (F) 8 mg (M)	Hemoglobin synthesis and red blood cell function; supports immune function	9-12% DV
Zinc	8 mg (F) 11 mg (M)	Enzyme function, wound healing, growth, immunity	6% DV
Magnesium	310-320 mg (F) 400-420 mg (M)	Bones, nerve and heart function	9-16% DV
Potassium	4,700mg	Electrolyte and water balance, nerve transmission	10-14% DV
Phosphorous	700 mg	Bone and teeth formation, energy production	11-13% DV
Selenium	55µg	Antioxidant function	8-19% DV
Copper	900µg	Protein metabolism	9-10% DV
Manganese	2-5 mg	Enzyme action including carbohydrate metabolism	19-53% DV
Thiamin (Vitamin B1)	1.1 mg (F) 1.2 mg (M)	Metabolism, nerve function	8-11% DV
Vitamin B6	1.3 mg	Protein metabolism, hemoglobin synthesis	5-10% DV
Folate	400µg	DNA & RNA Synthesis, amino acid synthesis, decreases risk of birth defects	29-37% DV
Vitamin K	90 µg (F) 120 µg (M)	Blood clotting	7-9% DV

\* Amounts recommended for persons 19-50 years of age

(F) = Female (M) = Male mg = milligrams µg = micrograms

DV= Daily Value