

Nutrition

Fact Sheet

Fueling the School-Aged Athlete – The Vegetarian Athlete

You Are What You Eat

Some school-aged children may describe themselves as vegetarians. Currently, most sport scientists agree that athletic performance is not helped or harmed by a vegetarian diet (Habash, 2006; Venderley & Campbell, 2006). Parents, teachers, coaches, and school nutrition staff may want to ask them what their diets include and exclude because the term can be interpreted in different ways. Vegetarians can be categorized by what they eat (Whitney & Rolfes, 2008). Common types include

- **Vegan** – only eat food from plant sources and do not eat meat, fish, seafood, poultry, or anything derived from animal sources including milk, cheese, eggs, butter, lard, gelatin, and sometimes honey;
- **Lacto-vegetarian** – eat plant based food, milk, and milk products like yogurt, cheese, and butter but do not eat eggs and animal flesh (meat, fish, seafood, poultry);
- **Ovo-vegetarian** – eat plant based foods and eggs, but exclude milk, milk products, and animal flesh; and
- **Lacto-ovo-vegetarian** – eat plant based foods, milk and milk products, and eggs, but exclude animal flesh.



Some vegetarians may even include fish and or seafood in their diets. Individuals who do not eat red meat or occasionally eat meat, poultry, fish, and seafood consider themselves semi- or part-time vegetarians (Laquale, 2006; Whitney & Rolfes, 2008).



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Reasons for Following a Vegetarian Diet

Physical health, ecological issues, religious beliefs, ethical concerns, or economic factors may motivate individuals to follow a vegetarian diet (Whitney & Rolfes, 2008). Among college students, health and weight control are the most frequent reasons for becoming vegetarians (Trautman, Rau, Wilson, & Walters, 2008).

Adolescents may be attracted to vegetarian diets as a way of expressing their individuality and establishing independence (Trautman et al., 2008). However, research shows adolescent vegetarians could be at a greater risk for unhealthy weight control behaviors and disordered eating (Trautman et al., 2008; Robinson-O'Brien, Wall, Perry, Story, & Neumark-Sztainer, 2008). An acceptable excuse for avoiding food is to say it does not fit into a vegetarian diet when the individual may really be trying to hide an eating disorder.

Warning: In school-aged athletes focused on body image and body weight, vegetarianism could be a red flag for an eating disorder (Habash, 2006).

Parents, teachers, and coaches may want to ask school-aged athletes about their motivation for becoming a vegetarian. If weight control is the main reason, nutrition counseling from a registered dietitian (RD) or trained health professional may be appropriate.

School-Aged Athletes and Vegetarian Diets

The American Dietetic Association (2003) supports vegetarian diets. Properly planned vegetarian diets are

- healthful,
- nutritionally adequate, and
- helpful in the prevention and treatment of certain diseases.

They are appropriate for all stages of the lifecycle including school-aged athletes. Although limited data are available, growth is similar when vegetarian and non-vegetarian children and adolescents are compared (ADA, 2003). However, growth problems can occur if the diet is very restricted and calorie intake does not meet energy needs.

Vegetarian diets offer some advantages for adolescents (ADA, 2003). When compared to non-vegetarians, vegetarian adolescents consume

- more iron, fiber, folate, vitamin A and C, fruits, vegetables; and
- fewer sweets, fast foods, and salty snacks.

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Vegetarian Diets and Athletic Performance

Some athletes may decide to follow a vegetarian diet for health, training, and performance benefits. Endurance athletes may prefer a vegetarian diet to meet increased carbohydrate needs or help with weight management (Venderley & Campbell, 2006).

Appropriately planned vegetarian diets can meet the needs of school-aged athletes (ADA, 2003). Adequate calories and a variety of plant-based protein are necessary to meet nutrient requirements. There is no evidence that increased fiber decreases bioavailability of minerals or that the amino acids found in a vegetarian diet will not support training needs (Habash, 2006).

Making Healthy Vegetarian Food Choices

Animal-based foods are rich in protein, iron, zinc, calcium, riboflavin, vitamin D, and vitamin B-12. Eating an adequate amount and wide variety of plant-based foods can provide an alternative source for nutrients that are typically found in meats and other foods vegetarians might exclude from their diet.

Tips for Meal Planning		
Energy	School-aged athletes need to eat an adequate amount of food to meet energy needs. Vegetarian diets are often bulky and filling. If a school-aged athlete fills-up quickly, frequent meals, snacks, and a higher intake of healthy unsaturated fats may be needed.	
Protein	Include plant sources of protein like soy foods (tofu, soy-milk, tempeh, textured vegetable protein), legumes (beans - kidney, pinto, black-eyed peas), grains, nuts (peanut butter), and seeds. For lacto-ovo-vegetarians, milk, milk products, and eggs provide high quality protein. Avoid excess fat from dairy products by choosing lower fat alternatives.	
Calcium	For vegans, provide green leafy vegetables, dried fruits, calcium fortified orange juice, soy milk, and breakfast cereals. For lacto-vegetarians, milk and milk products are excellent sources of calcium.	
Iron	Include legumes, dark green leafy vegetables, whole grains, iron fortified breads, and cereals to provide iron.	
B-12	Since B-12 is only found in animal derived food, vegans should incorporate B-12 fortified soy milk, meat analog like textured vegetable protein, and breakfast cereals.	

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For More Information

American Dietetic Association. www.eatright.org MyPyramid
SCAN–Sports, Cardiovascular, and Wellness Nutritionists – A Practice Group of the
American Dietetic Association. www.scandpg.org
Vegetarian Diets. www.mypyramid.gov

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For more information, contact NFSMI at 800-321-3054 or www.nfsmi.org.

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