

VEGETARIAN NUTRITION FOR TEENS

The American Dietetic Association states that “appropriately planned vegetarian diets are healthful, nutritionally adequate, and provide health benefits in the prevention and treatment of certain diseases.” Vegetarian diets can be appropriate for people of all ages, including children and adolescents. Interest in vegetarianism in the United States appears to be increasing, with more and more restaurants and college dining halls routinely offering vegetarian options. About 2.5% of American adults follow diets that exclude all meat, fish, and poultry, and 20-25% are choosing to eat meatless meals much of the time without completely excluding meat from their diets.

Twenty-five years ago, most medical research about vegetarianism addressed the nutritional adequacy of vegetarian diets. Now we know that vegetarian diets can meet the current recommendations for all necessary nutrients, including protein, iron, calcium, and vitamin B12. Moreover, there are a number of benefits of vegetarian diets, including lower levels of saturated fat and cholesterol, and higher levels of fiber, folate, and vitamins C and E. Studies have reported that vegetarian teens eat more fruits and vegetables and fewer sweets and fast foods than their peers. In the long run, vegetarians have been reported to have lower rates of obesity, lower rates of death from ischemic heart disease, and lower rates of hypertension, type 2 diabetes, and colon cancer.



The eating patterns of vegetarians vary considerably, and the key to a healthy diet – vegetarian or not – is **VARIETY**. Just as eating cheeseburgers all the time wouldn't be good for you, neither would be eating only potato chips and chocolate (or only carrots and celery sticks)! A healthy vegetarian diet includes all of the following: fruits, vegetables, leafy greens, whole grain products, nuts, seeds, and legumes (and possibly dairy products and eggs). A healthy food pyramid that can be used to help guide daily food choices is below.

Four nutrients that vegetarian teens need to be aware of to make good food choices are protein, iron, calcium, and vitamin B12.

Protein: Protein is necessary for virtually all biological process; in particular, the body uses protein for growth and to repair itself. Being vegetarian in no way means that your diet will be lacking in protein; most plant foods contain protein. Protein is

made up of smaller units called *amino acids*. There are about 20 amino acids, eight of which must be present in the diet because the body can't produce them itself (the essential amino acids). Unlike animal proteins, any one particular plant protein source may not contain all the essential amino acids (that is, it may not be a *complete protein*). However, in a varied vegetarian diet, amino acids in one food complement the amino acids in another. People used to think that you needed to make sure you were eating complete proteins at each meal; in fact, your body makes its own complete proteins if you eat a variety of foods over the course of the day.

Iron: Iron is essential for the formation of *hemoglobin*, the red pigment in blood. The iron in hemoglobin combines with oxygen and transports it through the blood to the body's tissues and organs. Iron deficiency can lead to *anemia*, and your body not getting all the oxygen it needs to function well. For menstruating females, an important consideration is that iron is lost in the form of monthly blood loss, adding to their dietary iron requirement. The recommended daily intake of iron for vegetarians is 1.8 times the recommended intake for nonvegetarians because the iron in plant foods is harder for the body to absorb than the iron in meat. Studies have shown no difference in the rates of iron deficiency anemia between vegetarians and nonvegetarians. Foods that are good sources of iron include dried beans (such as lentils, kidney beans, and chickpeas), dark green vegetables (such as spinach), dried fruits, prune juice, blackstrap molasses, pumpkin seeds, sesame seeds, soy-based foods (like tofu and tempeh), and iron fortified breads and cereals. Another tip: vitamin C facilitates the absorption of iron – to increase the amount of iron absorbed from a meal, eat a food rich in vitamin C (for example, citrus fruits or juices, broccoli, tomatoes, or green pepper) as part of the meal.

Calcium: Calcium is important for building bones, and the strength of your bones throughout your life is largely determined by how you take care of your bones in your teen and young adult years. *Osteoporosis*, which is especially common in older women, can be due to calcium deficiency – bones become brittle and more likely to break. Your risk of osteoporosis is affected by how much calcium is in your diet, but smoking and not getting enough exercise also increase your risk. Dairy products (such as fat-free and low-fat milk, yogurt, and cheeses) are rich in calcium, but you can also get calcium from many plant-based foods; especially rich sources include dark leafy greens (like kale and mustard, collard, and turnip greens), bok choy, broccoli, beans, tofu prepared with calcium, dried figs, sunflower seeds, and calcium-fortified cereals and juices.

Vitamin B12: Vitamin B12 is necessary for growth, for making red blood cells, and for keeping your brain healthy. This vitamin comes primarily from animal-derived foods (meat, dairy products, and eggs). A vegetarian diet containing milk and eggs provides adequate B12. But if you're a vegan, you need to add vitamin B12 to your diet. Some cereals, as well as fortified soy milk, have B12 in them – check the label!

TIPS FOR BEING A VEGETARIAN IN A NONVEGETARIAN HOUSEHOLD

Talk with your parents about your decision to be a vegetarian and try to get them to be supportive of your choice. It's a natural reaction for them to be concerned about your health, especially since they may have been brought up on a meat-based diet. Plus, they may be concerned that your choice to be a vegetarian is going to make more work for whoever does the grocery shopping and cooking in your home. Reassure your parents that you're making an effort to learn what you need to know about balanced nutrition, and that you're being sensible about your diet. Help out with the grocery shopping and cooking. There may be meals that your family already enjoys that are meat-free or that can be easily adapted to be meat-free; you

can also get vegetarian cookbooks from the library or the bookstore (or search for recipes on the internet) for suggestions.

A BRIEF WORD ABOUT EATING DISORDERS

Vegetarian diets are somewhat more common among adolescents with eating disorders than in the general teen population. However, recent research suggests that adopting a vegetarian diet does not lead to eating disorders; rather, some teens who already have eating disorders may select vegetarian diets to camouflage the problem, using vegetarianism as a socially-acceptable way to restrict their eating. The main feature of *anorexia nervosa* is maintaining a body weight that is below normal for age and height. People with anorexia nervosa may have an intense fear of gaining weight or becoming fat, place a great deal of importance on their weight and body shape, think that they are fat even though they are underweight, and stop having menstrual periods. Some people with eating disorders restrict their eating to a dangerous level. If you are preoccupied with thinking about food and your weight and body shape, you should talk to your doctor.

WEBSITES

- American Dietetic Association: www.eatright.com
- The Vegetarian Resource Group: www.vrg.org/nutrition/teennutrition.htm (available in English and Spanish)
- University of Michigan Dining Service: www.housing.umich.edu/services/dining/vegit.html
- The Vegetarian Society: www.vegsoc.org/health

BOOKS AND ARTICLES

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