



Vegetarian Nutrition

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RD Resources for Professionals:

Vegetarian/Vegan Myths

Myth #1: A Plant-based Diet is Not Safe for a Growing Child

According to the Academy of Nutrition and Dietetics Position Statement on Vegetarian Diets, “appropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases. Well-planned vegetarian diets are appropriate for individuals during all stages of the life cycle, including pregnancy, lactation, infancy, childhood, and adolescence, and for athletes.”¹



Consuming a variety of nutrient-dense plant foods provides all of the nutrients growing children need.

Children have small stomachs and may become full before they have eaten enough, if they eat a typical high fiber vegetarian/vegan diet.² It is recommended that children consume frequent meals and snacks and use some refined foods (such as fortified breakfast cereals) and higher-vegetable fat foods to meet energy and nutrient needs.¹

Studies have found that vegetarian adolescents consume more nutrients, such as vitamins A and C, folate, fiber, and iron, than non-vegetarians.^{3,4} Vegetarian adolescents also consume fewer sweets, fast foods, and salty snacks and more fruits and vegetables compared to non-vegetarian adolescents.^{3,5} Key nutrients of concern for adolescent vegetarians include calcium, vitamin D, iron, zinc and vitamin B-12.¹

Myth #2: It is Hard for a Vegetarian/Vegan to Eat Enough Protein

A plant-based diet can easily meet the recommendations for protein, as long as calorie intake is adequate and appropriate. Research shows that when a diet contains a variety of foods throughout the day, all essential amino acids will be present in the amino acid pool, thus strict protein combining is not necessary.⁶ Almost all foods contain some protein. Sources of protein include: legumes (lentils, beans), soy-foods (tofu, tempeh, edamame), seitan (wheat meat), non-dairy soy beverages, soy yogurt and cheeses, nuts, seeds, grains (rice, millet, quinoa), breads, and vegetables.

There do not appear to be health advantages to consuming a high protein diet. Diets that are high in protein may even increase the risk of osteoporosis and kidney disease.^{7,8}

How much protein do vegetarians/vegans need?

The Recommended Dietary Allowance for protein is 0.8g pro/kg of body weight (BW). Protein recommendations for vegans may be increased to account for the lower digestibility of some plant proteins, from 0.8g/kg BW to 1.0g/kg BW.⁹

Myth #3: The Only Rich Source of Calcium for Bone Health is Dairy Products



Calcium needs can easily be met on plant-based diets, because of the many calcium-rich plant-based foods. Plant foods may provide additional

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advantages for bone health since they can be good sources of potassium, vitamin K, isoflavones (from soy) and other compounds believed to affect bone health. Diets that are more alkaline, which are those generally higher in fruits and vegetables and lower in animal protein and dairy, also appear to promote bone health. Other important factors for optimal bone health include exercise, and adequate protein and vitamin D intake. Factors such as high sodium or protein intake, excessive weight loss, alcohol, and smoking can contribute to poorer bone health.¹⁰

Vegetarian/Vegans need to focus on a variety of calcium-rich and calcium-fortified foods daily.

Naturally occurring calcium-rich foods include:

low-oxalate leafy green vegetables (collards, kale, mustard and turnip greens), broccoli, bok choy, calcium-set tofu, almonds and blackstrap molasses.

Calcium-fortified foods include: non-dairy beverages made from soy, rice, oats or almonds, certain types of juices, breakfast cereals, and protein bars.

Calcium absorption is inhibited by oxalates in some vegetables such as Swiss chard, spinach and beet greens. However, calcium is very well absorbed—at rates about twice that from milk—from low-oxalate leafy green vegetables.¹⁰

The recommended level of calcium for adults age 19 through 50 years is 1,000 mg per day. An intake of 1,200 mg of calcium is recommended for women age 51 years and older, and for men 70 years and older.¹¹

Myth #4: Soy is Unsafe

Soy is a good source of nutrients that have many health benefits. Isoflavones are plant chemicals found in soy products. Isoflavones are commonly called phytoestrogens, which means “plant estrogens,” because they can bind to the same receptors in cells that bind the hormone estrogen. They are different from estrogen in some important ways, however. In some tissues, isoflavones exert weak estrogen-like effects, but in others, they seem to have anti-estrogenic effects. And, in some, they have no effect at all.



Studies within Asia show that Asian women who consume higher amounts of isoflavone-rich soyfoods are less likely to have breast cancer compared to those who consume little soy. Studies suggest that as little as one serving of soy daily for children and/or teenagers, decreases breast cancer risk later in life by 25 to 50 percent.¹²

Note: While results of some animal studies suggest that isoflavones may be contraindicated for women with breast cancer or possibly even those who are at high risk of this disease, human studies generally show that neither soyfoods nor isoflavone supplements have estrogenic effects on breast tissue.¹³ According to the American Cancer Society, for breast cancer survivors, current evidence suggests no adverse effects on recurrence or survival from consuming soy and soy foods, and there is the potential for these foods to exert a positive synergistic effect with tamoxifen, a common anti-estrogen drug for estrogen sensitive breast cancer.¹⁴

Soy may also be helpful for other conditions, including reducing heart disease risk, relieving hot flashes, preventing/treating prostate cancer, and promoting bone health for postmenopausal women.¹³

Myth #5: Vegetarians/Vegans are at Increased Risk of Iron Deficiency Anemia

Iron deficiency is no more common among vegetarians than among the general population. Even though vegans have been found to have lower iron stores^{15,16} their serum ferritin levels tend to be within normal limits.^{17,18}

Reasons for adequate vegan iron consumption:

1. Many commonly eaten foods are high in iron: dark leafy greens (kale, collard greens, bok choy), beans, tofu, tempeh, black strap molasses, quinoa, tahini, etc.
2. Vegan diets are high in vitamin C and other organic acids from fruits and vegetables, which may increase absorption of iron sixfold.
3. Many commonly eaten food combinations are high in both vitamin C and iron, such as beans and tomato sauce or stir-fried tofu and broccoli. Some foods are high in both vitamin C and iron, such as broccoli and bok choy.¹⁹
4. Tea, coffee, items high in dietary fiber and phytates, and calcium supplements should be used several hours before a meal that is high in iron to decrease the risk of affecting iron absorption.¹¹

Myth #6: Vegan Diets Lack Essential Fatty Acids

Vegan diets are usually rich in omega-6 fatty acids (n-6; Linoleic acid), and arachidonic acid (AA), but tend to have lower levels of omega-3 fatty acids (n-3; Alpha-linolenic acid (ALA)), Eicosapentaenoic acid (EPA), and Docosahexaenoic acid (DHA). Excess n-6 fatty acids can be problematic by increasing blood pressure, inflammation, platelet aggregation, blood clotting, and cell proliferation, which can increase risk of chronic disease.²⁰ N-3 fatty acids, particularly EPA and DHA, are important for cardiovascular health, as well as eye and brain development.¹



Vegan diets can be rich in ALA, which comes from flaxseeds, walnuts, canola and hemp oils, and soy. However, vegan food sources of EPA and DHA can be limited, and may be poorly converted from ALA. Vegans can improve their intake, balance, and conversion of essential fatty acids in the following ways:

1. Limit use of concentrated n-6 fatty acids as primary fat sources, and limit processed foods, such as corn and soybean oil, and foods containing these oils.
2. Consume diets rich in monounsaturated fats and n-3 fatty acids, by using canola/olive oil for main oils, nut butters on bread instead of margarine, and avocados instead of mayonnaise on sandwiches.
3. Eat good sources of n-3 fatty acids daily, such as flaxseeds, walnuts, canola and hemp oil, and soy.²⁰
4. Consider eating foods rich in EPA/DHA such as seaweed, supplements, or fortified foods.

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