



# Grains of truth about VEGETARIAN DIETS

## Definition

Approximately two million Americans are vegetarians. People are vegetarians for many reasons – economics, health advantages, ethical considerations, religious beliefs and concern for world hunger. Studies indicate that vegetarians often have lower illness and death rates from several diseases such as coronary artery disease, hypertension (high blood pressure), diabetes mellitus, obesity and some types of cancer than do non-vegetarians. A vegetarian diet may also be useful in the prevention and treatment of kidney disease. Non-dietary factors such as physical activity, not smoking or drinking alcohol may also play a role in their health status.

The American Dietetic Association states, “It is the position of the American Dietetic Association (ADA) that appropriately planned vegetarian diets are healthful, nutritionally adequate, and provide health benefits in the prevention and treatment of certain diseases.”

There are two common types of vegetarians:

**VEGANS:** Choose not to consume **any** animal foods including dairy products and eggs.

**LACTO-OVO-VEGETARIANS:** Choose primarily plant foods as well as dairy products and eggs.

## Nutrition considerations

**Saturated Fat & Cholesterol:** Because vegetarian diets are usually low in *saturated fat and cholesterol*, vegetarians generally have lower serum cholesterol and low-density lipoprotein (the “bad” cholesterol) levels, but high-density lipoproteins (the “good” cholesterol) and triglyceride levels will vary. (Heredity also plays an important part in cholesterol and triglyceride levels.)

**Whole Grains & Fiber:** Vegetarians consume higher levels of whole grains, fruits and vegetables than non-vegetarians, which provide more *folate, vitamin C and E, carotenoids, phytochemicals and fiber*. These have been shown to be protective against colon cancer and perhaps even breast cancer.

**Protein:** Adequate *protein* consumption is probable in vegetarian diets if a variety of plant foods are consumed and calorie needs are met. The eight essential amino acids do not need to be consumed at the same time and can be supplied by various plant foods.

**Iron:** Iron storage is usually lower in vegetarians because the iron (nonheme) in plant foods is not absorbed as well as the iron (heme-iron) from animal foods. However, iron-deficiency anemia appears at about the same rate in vegetarians as non-vegetarians. Vitamin C does improve iron absorption and the higher content of vitamin C in vegetarian diets may compensate for not having heme-iron sources.

**B Vitamins:** Vegans have to plan carefully to get satisfactory amounts of vitamin B<sub>12</sub> in their diets. Ready-to-eat breakfast cereals, fortified soy and other non-dairy milks, some nutritional yeasts and meat analogs often contains added vitamin B<sub>12</sub> and should be consumed daily. As one ages, they are less efficient in absorbing B<sub>12</sub> and may need to take supplements.

**Vitamin D:** Vitamin D intake is of concern for all diets, vegetarian or non-vegetarian. Fortified cow’s milk is the most common source, but vegans can find it in some fortified soy milks and cereals. Sunlight, of course, is a major factor for vitamin D status. There is a concern for those who always wear sunscreen, which interferes with the vitamin D synthesis and for some people during the winter months. Exposure to summer sun on the hands, arms and face 5 to fifteen minutes a day should be enough. Supplemental vitamin D, whether from fortified food or supplements, may be necessary for dark skinned people, people that live in the North, smoggy and or cloudy areas and especially for older vegans who synthesize it less efficiently.

**Calcium:** Lacto-ovo vegetarians consume calcium in the same amount or even higher amounts than do non-vegetarians, however, vegans do not. Since their diets are usually lower in protein, they may not need as much calcium. Sufficient physical activity, avoidance of excessive protein and sodium intake and some genetic influences will lower the amount of calcium needed.

Fortunately, some new vegetarian foods are calcium-fortified and legumes, soy foods, some nuts and vegetables do contain calcium. Vegans should know the RDA (Recommended Dietary Allowance) for calcium and use supplements if they are not consuming adequate amounts.

**Zinc:** Zinc intake should be scrutinized for vegans as the most bio available source of zinc is from meats. Although zinc deficiencies are not shown to be a major problem, vegans should strive to meet the RDA for zinc from cereals, wheat germ, legumes, soy products and some vegetables.

**The Life Cycle:** According to ADA, well-planned vegetarian diets are appropriate for all ages and during pregnancy and lactation. Infants, children, adolescents and athletes all can be adequately nourished if the proper foods are chosen.

All ages should consume appropriate food choices or supplements for vitamin B<sub>12</sub> and vitamin D, if there is limited sun exposure. Foods high in iron, calcium and zinc should be emphasized. A wide variety of plant foods should be eaten to assure dietary adequacy.

It is essential that infants, children and adolescents meet total energy needs to support growth. Children under the age of two should not be restricted to less than 30 percent of their calories from fat because it is needed for proper growth. Solely breast-fed infants will need iron supplements after the age of 4 to 6 months.

Pregnant women can meet their energy and nutrient needs through vegetarian diets. Birth weights of babies from vegetarians and non-vegetarian mothers are similar.

### **Noodle Soup with Mushrooms**

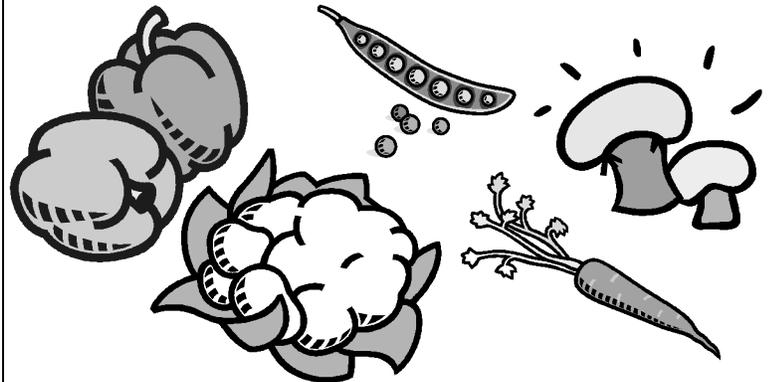
<b>¾ ounce</b>	<b>dried shiitake mushrooms</b>
<b>2 cups</b>	<b>boiling water</b>
<b>1 quart</b>	<b>vegetable stock</b>
<b>2 tablespoons</b>	<b>soy sauce</b>
<b>2 teaspoons</b>	<b>peeled &amp; chopped/grated fresh ginger</b>
<b>6 ounces</b>	<b>vermicelli or egg less noodles</b>
<b>½ pound</b>	<b>medium or firm tofu, diced</b>
<b>2 cups</b>	<b>snow peas, trimmed</b>
	<b>Salt to taste</b>
	<b>Fresh cilantro to taste</b>

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Place mushrooms in a heat-proof bowl, and pour the boiling water over them. Let sit until softened; 15 to 30 minutes. Strain through a cheesecloth-lined strainer set over a bowl, and squeeze mushrooms to extract as much fragrant liquid as possible. Set soaking liquid aside; rinse mushrooms several times to remove grit.

Transfer soaking liquid to a measuring cup and add water to measure 2 cups. Combine this liquid with stock in a heavy soup pot. Slice mushroom caps (discard stems) and add to broth, along with soy sauce and ginger. Bring to a boil, stir in pasta, tofu and snow peas, and simmer until pasta is al dente, about 5 minutes. Add salt, if desired. Stir in cilantro and ladle into bowls. Serves 6

**Nutrient Analysis:** One serving provides approximately: 165 calories, 10 g protein, 27 g carbohydrates, 2 g dietary fiber, 3 g fat (0 g saturated), 0 mg cholesterol, 78 mcg folate, 2 mg iron, 79 mg calcium, 164 mg potassium and 977 mg sodium. (Adapted from *Health Magazine*, Jan/Feb. 1999.)



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