

There are many health benefits of a vegetarian diet. Vegetarians tend to have lower rates of:

- Heart disease
- High blood pressure
- Type 2 diabetes
- Some types of cancer

But not all vegetarian diets are healthy. Use the guidelines below to help you make a meatless lifestyle a healthy one.

Note: The guidelines on this sheet are for healthy adults and teenagers only. Pregnant and breast-feeding women have special dietary needs. So do children, the elderly, and those with chronic health conditions. Talk with your doctor or a dietitian if you have special dietary needs.

Get enough protein.

Your body needs enough protein to stay healthy. What if you don't eat meat, poultry, or fish? Include these foods in your diet every day:

- Vegetables and grains
- 2-3 servings of dried beans, peas, lentils, or soy products per day
- 2-3 cups of fat-free or low-fat milk, yogurt, or fortified soy milk per day

See the enclosed Food Guide Pyramid for more details.

Get enough calcium and vitamin D.

Good sources of calcium include:

- Dairy foods (such as low-fat or non-fat milk, cheese, yogurt)
- Tofu or soy milk with added calcium
- Dark green, leafy vegetables (such as collard greens, kale, mustard greens, turnip greens, spinach, and broccoli)

The body needs vitamin D to use calcium. Drink milk, soy milk, or rice milk with added vitamin D. Or, take a daily vitamin that includes vitamin D.



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Get enough zinc.

Seafood and meat are among the best sources of zinc. It is important to get enough zinc when on a vegetarian diet. Plant sources include:

- Whole grains and wheat germ
- Nuts
- Dried beans and peas

Get enough iron.

Iron is found in both animal and plant foods. Good plant food sources include:

- Dark green, leafy vegetables (such as collard greens, kale, mustard greens, turnip greens, spinach, and broccoli)
- Dried beans and peas
- Whole grains
- Cereals and other grain products with added iron
- Eggs
- Dried fruit
- Brewer's yeast
- Black strap molasses

To get the most from iron-rich plant foods:

- Eat them with foods rich in vitamin C. Examples are citrus fruits or juices, potatoes, strawberries, cantaloupe, green pepper, tomato, broccoli, Brussels sprouts.
- Cook acidic foods (such as tomato sauce) in an iron skillet.

Get enough vitamin B12.

Vitamin B12 is needed for health. It is found only in eggs, dairy products, and other animal foods. Vegetarians who eat only plant foods must:

- Take a vitamin B12 supplement, or
- Eat foods such as soy milk with added vitamin B12. (Some cereals have added vitamin B12, too.)



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Food Guide Pyramid for Vegetarian Meal Planning

		Calcium-rich foods, 8 servings
Fats 2 Servings	Oil, mayonnaise or soft margarine - 1 tea- spoon (5 ml)	
Fruits 2 Servings	Cut up or cooked fruit - ½ cup (125 ml) Fruit juice - ½ cup (125ml) Dried fruit - 1/4 cup (60 ml)	Fortified fruit juice - 1/2 cup (125 ml) Figs - 5
Vegetables 4 Servings	Cooked vegetables - 1/2 cup (125ml) Raw vegetables - 1 cup (250 ml) Vegetable juice - 1/2 cup (125 ml)	Bok choy, broccoli, collards, Chinese cabbage, kale, mustard greens, okra - 1 cup (250 ml) cooked or 2 cups (500 ml) raw Fortified tomato juice - 1/2cup (125 ml)
Legumes, nuts and other protein-rich foods 5 servings	Cooked beans, peas, or lentils - 1/2 cup (125 ml) Tofu or tempeh - 1/2 cup (125 ml) Nut or seed butter - 2 tbsp (30 ml) Nuts - 1/4 cup (60 ml) Meat substitute - 1oz (28 grams) Egg - 1	Cow's milk or yogurt or fortified soymilk - 1/2 cup (125 ml) Cheese - 3/4 oz (21g) Tempeh or calcium-set tofu - 1/2 (125 ml) Almonds - 1/4 cup (60 ml) Almond butter or sesame tabini - 2tbsp (30 ml) Cooked soybeans - 1/2 cup (125 ml) Soynuts - 1/4 cup (60 ml)
Grains 6 Servings	Bread - 1 slice Cooked grains or cereal - 1/2 cup (125 ml) Ready-to-eat cereal - 1oz (28 g)	Calcium-fortified breakfast cereal - 1oz (28 g) ca

Note: The shaded column at the left shows your total number of daily recommended servings from the five food groups. To get enough calcium, be sure those servings *include* at least eight servings of the calcium-rich foods in the column at the right.



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Be careful. Vegetarian does not mean low-fat.

Some vegetarian foods can be very high in fat. Be aware of the fat in common vegetarian foods and recipes. See the chart below.

Food	Fat grams
½ cup cottage cheese (regular)	5
1 ounce Mozzarella cheese (regular)	7
1 brown 'n serve vegetarian sausage patty	7
2 tablespoons sunflower or sesame seeds	8
1 cup whole milk	8
1 ounce American, Cheddar, Monterey Jack cheese (regular)	9
½ cup tofu (regular), stir-fried	9
2 tablespoons cream cheese	10
½ cup avocado	11
1 tablespoon olive oil	14
¼ cup walnuts	15
½ cup ricotta cheese (regular)	16
2 tablespoons peanut butter	16
¼ cup peanuts or pecans	18
¼ cup almonds	19

Take Action

Fill in the blanks below with your plan for healthy vegetarian eating. List one idea for each.

1. I will get enough protein by _____
2. I will get enough calcium and vitamin B by _____
3. I will get enough zinc by _____
4. I will get enough iron by _____
5. I will get enough vitamin B12 by _____
6. I will keep my dietary fat in check by _____

Source: Information provided by the University of Pittsburgh Obesity and Nutrition Research Center (grant DK046204 from the National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases).



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The Vegetarian Food Guide (for healthy adults and teens only)

Group	Examples of low-fat foods, serving	Avoid these high-fat/sugar foods
Breads, cereals, rice, pastas (whole grains are best) (5-8 servings)	<ul style="list-style-type: none"> • 1 slice whole wheat bread or low-fat tortilla • ½ bagel, English muffin, pita bread • ½ cup cooked cereal, pasta, bulgur, rice, or other grain • 1 small pancake • ¾ cup (or 1 ounce) dry cereal • 2 cups air-popped popcorn 	<ul style="list-style-type: none"> • Croissants, sweet rolls, donuts, muffins, Danish pastry, biscuits, high-fat crackers, regular tortilla chips, regular flour tortillas, fried tortillas, waffles • Granola-type cereals
Vegetables (4 or more servings)	<p><i>Include at least 1 serving per day of broccoli, kale, collards, or other dark-green leafy vegetable.</i></p> <ul style="list-style-type: none"> • 1 cup salad • ½ cup fresh, frozen, or cooked vegetables 	<ul style="list-style-type: none"> • Vegetables with butter/margarine, cream, or regular-fat cheese sauces • Fried vegetables, olives, avocados
Fruits (3 or more servings)	<ul style="list-style-type: none"> • 1 medium fruit (such as apple, orange) • 2 small fruits (such as apricots or plums) • ½ cup fresh, frozen, or cooked fruit • ¾ cup 100% fruit juice 	<ul style="list-style-type: none"> • Fruits in pastry (as in pies), coconut • Limit those high in sugar: dried fruit, juices, or drinks sweetened with sugar, fruit canned in syrup, large amounts of fruit juice
Milk (adults: 3 servings; teens: 4 servings)	<ul style="list-style-type: none"> • 1 cup skim milk, 1% milk, or low-fat soymilk (fortified with calcium, vitamin D, and vitamin B12) • 1 cup low-fat or nonfat yogurt • 1½-2 ounces low-fat or nonfat cheese (< 2 grams fat per ounce) 	<ul style="list-style-type: none"> • 2% or whole milk • Regular soymilk • Regular cheese (>2 grams fat per ounce) • Yogurt with added sugar
Legumes, nuts, seeds, eggs (2-3 servings)	<ul style="list-style-type: none"> • ½ cup cooked legumes (dried beans, peas, lentils) • ½ cup low-fat tofu, tempeh, or textured vegetable protein • 3 ounces low-fat or nonfat meat analog • 1 egg or ¼ cup egg substitute • 2 tablespoons nuts, nut butter, seeds 	<ul style="list-style-type: none"> • Avoid more than one serving of nuts or seeds per day because of the high fat and calorie content. • Regular tofu or meat analogs • Beans cooked in lard or salt pork
Fats (1-3 servings)	<ul style="list-style-type: none"> • 1 teaspoon oil or margarine • 1 tablespoon regular salad dressing (For Omega-3 fatty acids, include ½ teaspoon flaxseed oil, 2 teaspoons ground flaxseed, or 2 teaspoons canola or soybean oil per day.) 	<ul style="list-style-type: none"> • Limit shortening, lard, butter, cream cheese, sour cream, half and half, whipped cream, ice cream • Limit snack chips, cookies, cakes, candy, soft drinks

Adapted from *The Vegetarian Way* by Virginia Messina, MPH, RD, and Mark Messina, PhD (New York, 1996)



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