



Vegetarians usually exclude certain animal foods from their daily eating plan. There are several types of patterns:

- Vegan**
Excludes all animal sources and eats only foods of plant origin.
- Lacto-vegetarian**
Eats plant foods plus milk and other dairy sources.
- Lacto-ovo vegetarian**
Consume plant foods, milk and dairy foods as well as eggs.
- Semi-vegetarian**
Eat some groups of animal foods but not all (such as poultry and fish but not red meat).

Because the foods that are excluded (which could include meat, eggs and/or dairy products) are important sources of high quality protein, iron, Vitamin B-12 and Vitamin D, calcium and other nutrients, it is important to plan eating to be nutritionally adequate.

The following nutrients need special attention:
PROTEIN Amino acids are the building blocks that make up protein. Your body can actually make some amino acids itself. However, there are some amino acids that the body can't make so we must get these amino acids (termed "essential") from certain foods that we eat. Animal protein (meat, dairy, eggs) contains all the essential amino acids while vegetable proteins contain varying amounts. There is no need to plan specific protein combinations for each meal; a balanced amino acid mix can be obtained by eating a variety of unrefined grains, legumes, seeds, nuts and vegetables throughout the day.

IRON While iron from meat is absorbed easier than iron from plant sources, Vitamin C (from fruits and vegetables) increases iron absorption for vegetarians. Good sources of iron include firm tofu, lentils, molasses, kidney and pinto beans, chickpeas, tahini and sesame seeds. If you drink tea, save it for between meals (regular tea contains tannin which binds iron).

VITAMIN B-12 Meat and dairy products contain B-12 but plant foods do not. Supplemental sources are available for vegans (see chart).

VITAMIN D Adequate daily sun exposure can activate Vitamin D in your skin. Dairy products are fortified with Vitamin D. If dairy products are not eaten, a supplement should be taken: not more than the Recommended Dietary Allowances (RDA) for Vitamin D.

CALCIUM Consume two or more good sources of calcium each day and include regular weight bearing exercise for good bone health. Calcium retention in the body is improved if protein intake is adequate but not excessive. Some good calcium sources include firm tofu (processed with calcium sulfate), cooked spinach, sesame seeds, tempeh, figs, tahini, broccoli and soy milk.

Nutritional Adequacy for Vegetarians

By following the daily food guide for vegetarians and eating enough calories to maintain a healthy weight range, a nutritionally adequate diet can be achieved. Vegans should be sure to include a reliable source of Vitamin B-12 (fortified breakfast cereals and soy beverages, nutritional yeast or supplement) and supplemental Vitamin D if exposure to sunlight is limited (Vitamin D supplement not more than the RDA).

Food Group	Suggested Daily Servings	Serving Sizes
Breads, Cereals, Rice + Pasta cereal,	6 or more	1 slice whole grain bread, 1/2 bun, bagel or English muffin, 1/2 cup cooked rice or pasta, 3/4 cup dry cereal.
Vegetables	4 or more	1/2 cup cooked or 1 cup raw vegetables
Legumes and other Meat Substitutes	2 to 3	1/2 cup cooked beans, 4 ounces tofu or tempeh, 8 ounces soy milk, 2 Tbsp nuts or seeds (use sparingly)
Fruits	3 or more	1 piece of fresh fruit, 3/4 cup fruit juice, 1/2 cup canned or cooked fruit
Dairy Products	Optional: up to 3 servings	1 cup skim or low fat milk, 1 cup low fat yogurt, 1 1/2 ounces low fat cheese
Eggs	Optional: limit	1 egg or 2 egg whites to 3-4 yolks/week
Fats, sweets	(Go easy on these)	Oil, margarine, mayonnaise, cakes, pies, and alcohol cookies, pastries, candies, beer, wine and distilled spirits

For more information or to speak with the dietitian, call 603-862-2583 or email at rochelle.litalien@unh.edu.

Design by Rochelle L'Italien M.S., R.D. L.D.

