

Packing Nutrients Into A Vegan Diet

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Adopting a vegetarian diet isn't as simple as scraping meat off your plate. You need to take extra steps to ensure you are meeting your daily nutritional needs.

Growing health concerns, accessible dining options and year-round availability of fresh produce have made vegetarianism more appealing and popular. This has spawned alternative variations in addition to traditional vegans who eschew any fish and animal products, including eggs and dairy foods:

- *Lacto-vegetarian*: Eats dairy foods but not eggs, meat, poultry and seafood.
- *Ovo-vegetarian*: Eats eggs but not dairy foods, meat, poultry and seafood.
- *Lacto-ovo vegetarian*: Eats dairy foods and eggs but not meat, poultry and seafood.

- *Flexitarian*: Eats small amounts of meat, poultry (pollo-vegetarian) or fish (pescatarian) occasionally.

Nutritional Balance

Numerous studies have established the health benefits linked to a plant-based diet, which:

- Is high in dietary fibre, antioxidants, phytochemicals, folate, potassium and magnesium
- Is low in cholesterol and fat, particularly saturated and trans fats
- Contains a high proportion of monounsaturated and

polyunsaturated fats

Nevertheless, it has always been a concern that vegans are at real risk of missing out on the essential nutrients that the body needs. It is a fact that the more restrictive a diet is, the more difficult it is to get all the required nutrients.

But even strict vegans can fulfil their intake by planning their diets carefully. A varied diet is necessary to avoid deficiencies. Some nutrients, in particular, need special attention:

Protein. Essential for many bodily processes including tissue building and repair, protein is made up of amino acids. Our bodies cannot produce essential amino acids and most plant foods sport limited amounts of one or more types of these elements.

As such, it is recommended that vegetarians eat legumes and nuts daily, along with whole grains, to ensure adequate intake. Soy, buckwheat, amaranth and quinoa are among the only complete vegetable proteins available that contain all of the eight essential amino acids.

Vitamin B12. Our bodies need vitamin B12 to produce red blood cells and maintain the well-being of our nervous system. However, this is found almost exclusively in animal products including milk, eggs and cheese, so deficiency is a potential concern for vegetarians. Vitamin B12 can be derived from enriched cereals, fortified soy products, yeast extracts or supplements.

Calcium. Brussels sprouts, broccoli, Chinese cabbage, kale, sweet potatoes, legumes, almonds and figs are good sources of this mineral that helps build and maintain strong teeth and bones.

Tofu enriched with calcium, fortified soy milk and fruit juices are other options. Spinach and Swiss chard, which also contain calcium, are less than ideal because they also have oxalates that make it harder for the body to absorb calcium. It is also beneficial to limit one's caffeine and

salt intake.

Iron. Like vitamin B12, iron is a crucial component of red blood cells. Vegetarian diets are generally high in iron from plant foods. However, it is not as readily absorbed as the iron found in meat.

Tofu, nuts, beans, legumes, enriched cereals, wholegrain products, dark leafy greens and dried fruit are good sources of iron. To improve absorption, combine these with foods rich in vitamin C such as strawberries, citrus fruits, tomatoes, cabbage and broccoli. Also limit the intake of coffee and tea to between meals rather than with meals.



Zinc. This mineral performs essential functions in the body, including the development of immune system cells and the formation of proteins. Good sources of zinc include whole grains, soy products, cheese, yogurt, nuts, legumes, wheat germ, brown rice, whole grains, mushrooms, pumpkin seeds and peas.

As with iron, absorption is reduced by phytates found in wheat bran, whole grains and legumes. Food processing methods like leavening, soaking, fermenting or sprouting can reduce the phytate level and make zinc more readily available.

Omega-3 fatty acids. These are

important for cardiovascular health as well as brain and eye functions. Cold-water fish, such as salmon and mackerel, are high in omega-3 fatty acids. For vegetarians who do not eat fish, good sources of omega-3s are flaxseed, walnut, soy and canola oils. They can also consider taking a supplement.

Variety Is Key

One can get many of the health benefits of vegetarianism without going all the way by means of a few simple substitutions such as opting for plant-based sources of protein (like beans and tofu) or fish instead of meat. Alternatives for eggs and dairy products include:

- Milk - Drink fortified soymilk, rice milk or almond milk in place of cow's milk.
- Butter - Use olive oil, water, vegetable broth, wine or fat-free cooking spray when sautéing and canola oil when baking.
- Cheese - Use soy cheese or nutritional yeast flakes.
- Eggs - Use tofu instead of eggs when preparing an omelette. For baking, try commercial egg replacers (made mostly of potato starch) or this recipe to replace one egg: ¼ cup whipped tofu or one tablespoon milled flaxseed mixed with three tablespoons of water.

It is important to note that unless one follows recommended guidelines on nutrition, fat consumption and weight control, becoming a vegetarian will not necessarily warrant good health.

Besides consuming a wide variety of fruits, vegetables and whole grains, it is vital to replace saturated and trans fats with good fats, such as those found in nuts, olive oil and canola oil.

And always keep in mind that excess calories even from nutritious, low-fat, plant-based foods will result in weight gain. It is, therefore, necessary to practise portion control, read food labels and engage in regular physical activity.

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