

# Vegetarian Foods: Powerful for Health

PHYSICIANS COMMITTEE FOR RESPONSIBLE MEDICINE

5100 WISCONSIN AVE., N.W., SUITE 400 • WASHINGTON, DC 20016  
PHONE (202) 686-2210 • FAX (202) 686-2216 • PCRM@PCRM.ORG • WWW.PCRM.ORG

World-renowned figures as diverse as philosophers Plato and Nietzsche, political leaders Benjamin Franklin and Gandhi, and pop icons Paul McCartney and Bob Marley have all advocated a vegetarian diet. Science is also on the side of vegetarianism. Multitudes of studies have demonstrated the remarkable health benefits of a vegetarian diet.

“Vegetarian” is defined as avoiding all animal flesh, including fish and poultry. Vegetarians who avoid flesh, but do eat animal products such as cheese, milk, and eggs, are ovo-lacto-vegetarians (ovo = egg; lacto = milk, cheese, etc.). The ranks of those who abstain from all animal products are rapidly growing; these people are referred to as pure vegetarians or vegans. Scientific research shows that health benefits increase as the amount of food from animal sources in the diet decreases, so vegan diets are the healthiest overall.

## Preventing Cancer

Vegetarian diets—naturally low in saturated fat, high in fiber, and replete with cancer-protective phytochemicals—help to prevent cancer. Large studies in England and Germany have shown that vegetarians are about 40 percent less likely to develop cancer compared to meat-eaters.<sup>1-3</sup> In the United States, studies of Seventh-Day Adventists have shown significant reductions in cancer risk among those who avoided meat.<sup>4,5</sup> Similarly, breast cancer rates are dramatically lower in nations, such as China, that follow plant-based diets.<sup>6</sup> Interestingly, Japanese women who follow Western-style, meat-based diets are eight times more likely to develop breast cancer than women who follow a more traditional plant-based diet.<sup>7</sup> Meat and dairy products contribute to many forms of cancer, including cancer of the colon, breast, ovaries, and prostate.

Harvard studies that included tens of thousands of women and men have shown that regular meat consumption increases colon cancer risk by roughly 300 percent.<sup>8,9</sup> High-fat diets also encourage the body’s production of estrogens, in particular, estradiol. Increased levels of this sex hormone have been linked to breast cancer. A recent report noted that the rate of breast cancer among premenopausal women who ate the most animal (but not vegetable) fat was one-third higher than that of women who ate the least animal fat.<sup>10</sup> A separate study from

Cambridge University also linked diets high in saturated fat to breast cancer.<sup>11</sup> One study linked dairy products to an increased risk of ovarian cancer. The process of breaking down the lactose (milk sugar) into galactose evidently damages the ovaries.<sup>12</sup> Daily meat consumption triples the risk of prostate enlargement. Regular milk consumption doubles the risk and failure to consume vegetables regularly nearly quadruples the risk.<sup>13</sup>

Vegetarians avoid the animal fat linked to cancer and get abundant fiber, vitamins, and phytochemicals that help to prevent cancer. In addition, blood analysis of vegetarians reveals a higher level of “natural killer cells,” specialized white blood cells that attack cancer cells.<sup>14</sup>

## Beating Heart Disease

Vegetarian diets also help prevent heart disease. Animal products are the main source of saturated fat and the only source of cholesterol in the diet. Vegetarians avoid these risky products. Additionally, fiber helps reduce cholesterol levels<sup>15</sup> and animal products contain no fiber. When individuals switch to a high-fiber, low-fat diet their serum cholesterol levels often drop dramatically.<sup>16,17</sup> Studies have demonstrated that a low-fat, high-fiber, vegetarian or vegan diet combined with stress reduction techniques, smoking cessation, and exercise, or combined with prudent drug intervention, could actually reverse atherosclerosis—hardening of the arteries.<sup>18,19</sup> Heart diets that include lean meat, dairy products, and chicken are much less effective, usually only slowing the process of atherosclerosis.

## Lowering Blood Pressure

In the early 1900s, nutritionists noted that people who ate no meat had lower blood pressure.<sup>20</sup> They also discovered that vegetarian diets could, within two weeks, significantly reduce a person’s blood pressure.<sup>21</sup> These results were evident regardless of the sodium levels in the vegetarian diets. People who follow vegetarian diets typically have lower blood pressure.<sup>22-24</sup> No one knows exactly why vegetarian diets work so well, but probably cutting out meat, dairy products, and added fats reduces the blood’s viscosity (or “thickness”) which, in turn, brings down blood pressure.<sup>25</sup> Plant products are generally lower in fat and

sodium and have no cholesterol at all. Vegetables and fruits are also rich in potassium, which helps lower blood pressure.

## Preventing and Reversing Diabetes

**N**on-insulin-dependent (adult-onset) diabetes can be better controlled and sometimes even eliminated through a low-fat, vegetarian diet along with regular exercise.<sup>26</sup> Such a diet, low in fat and high in fiber and complex carbohydrates, allows insulin to work more effectively. The diabetic person can more easily regulate glucose levels. While a vegetarian diet cannot eliminate the need for insulin in people with type 1 (insulin-dependent) diabetes, it can often reduce the amounts of insulin used. Some scientists believe that insulin-dependent diabetes may be caused by an auto-immune reaction to dairy proteins.<sup>27,28</sup>

## Gallstones, Kidney Stones, and Osteoporosis

**V**egetarian diets have been shown to reduce one's chances of forming kidney stones and gallstones. Diets that are high in protein, especially animal protein, tend to cause the body to excrete more calcium, oxalate, and uric acid. These three substances are the main components of urinary tract stones. British researchers have advised that persons with a tendency to form kidney stones should follow a vegetarian diet.<sup>29</sup> The American Academy of Family Physicians notes that high animal protein intake is largely responsible for the high prevalence of kidney stones in the United States and other developed countries and recommends protein restriction for the prevention of recurrent kidney stones.<sup>30</sup>

Similarly, high-cholesterol, high-fat diets—the typical meat-based diet—are implicated in the formation of gallstones. The consumption of meaty diets, compared to vegetarian diets, has been shown to nearly double the risk of gallstones in women.<sup>31</sup>

For many of the same reasons, vegetarians are at a lower risk for osteoporosis. Since animal products force calcium out of the body, eating meat can promote bone loss. In nations with mainly vegetable diets (and without dairy product consumption), osteoporosis is less common than in the U.S., even when calcium intake is also less than in the U.S.<sup>32</sup> Calcium is important, but there is no need to get calcium from dairy products. For more information on protecting your bones, contact PCRM for additional reference materials or visit [www.strongbones.org](http://www.strongbones.org).

## Asthma

**A** 1985 Swedish study demonstrated that individuals with asthma practicing a vegan diet for a full year have a marked decrease in the need for medications and in the frequency and severity of asthma attacks. Twenty-two of the 24 subjects reported improvement by the end of the year.<sup>33</sup>

## Common Concerns

**S**ome people still worry about whether a vegetarian diet can provide all essential nutrients. However, it is very easy to

have a well-balanced diet with vegetarian foods, since these foods provide plenty of protein. Careful combining of foods is not necessary. Any normal variety of plant foods provides more than enough protein for the body's needs. Although there is somewhat less protein in a vegetarian diet than a meat-eater's diet, this is actually an advantage. Excess protein has been linked to kidney stones, osteoporosis, and possibly heart disease and some cancers. A diet focused on beans, whole grains, and vegetables contains adequate amounts of protein without the "overdose" most meat-eaters get.

Calcium is easy to find in a vegetarian diet. Many dark green leafy vegetables and beans are loaded with calcium, and some orange juices, non-dairy "milks," and cereals are calcium-fortified. Iron is plentiful in whole grains, beans, and fruits.

## Vitamin B12

**V**itamin B12 is a genuine issue for vegans, although very easy to deal with. Found mainly in animal products, small amounts may be found in plant products due to bacterial contamination.<sup>34,35</sup> However, these plant and fermented foods, such as spirulina, sea vegetables, tempeh, and miso, do not provide an active and reliable source,<sup>36</sup> so vitamin B12 must be obtained elsewhere in the diet. Regular intake of vitamin B12 is important to meet nutritional needs. Good sources include all common multiple vitamins (including vegetarian vitamins), fortified cereals, nutritional yeast, and fortified soymilk. It is especially important for pregnant women, breast-feeding mothers, and children to get enough vitamin B12.

### Special Concerns: Pregnancy, Infants, and Children

During pregnancy, nutritional needs increase. The American Dietetic Association has found vegan diets adequate for fulfilling nutritional needs during pregnancy, but pregnant women and nursing mothers should supplement their diets with vitamins B12 and D.<sup>36</sup> Most doctors also recommend that pregnant women supplement their diet with iron and folic acid, although vegetarians normally consume more folic acid than meat-eaters.

Vegetarian women have a lower incidence of pre-eclampsia in pregnancy and significantly more pure breast milk. Analyses of vegetarians' breast milk show that the levels of environmental contaminants in their milk are much lower than in non-vegetarians.<sup>37</sup> Studies have also shown that in families with a history of food allergies, when women abstain from allergenic foods, including milk, meat, and fish, during pregnancy, they are less likely to pass allergies onto the infant.<sup>38</sup> Mothers who drink milk pass cow antibodies along to their nursing infants through their breast milk. These antibodies can cause colic.

Vegetarian children also have high nutritional needs, but these are met within a vegetarian diet. A vegetarian menu is life extending. As young children, vegetarians may grow more gradually, reach puberty somewhat later, and live substantially longer than do meat-eaters. For more information on these topics, visit [www.pcrm.org/health](http://www.pcrm.org/health).

## Further Reading

For more information on vegetarian diets, PCRM recommends:

- *Breaking the Food Seduction*, by Neal Barnard, M.D.
- *Foods That Fight Pain*, by Neal Barnard, M.D.
- *Eat Right, Live Longer*, by Neal Barnard, M.D.
- *Food for Life*, by Neal Barnard, M.D.
- *The McDougall Plan*, by John McDougall, M.D.
- *Dr. Dean Ornish's Program for Reversing Heart Disease*, by Dean Ornish, M.D.

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