



## Fight colds, flu with balanced diet

**Every winter, I seem to have one bad bout of cold or flu. Are there any foods I can eat that would help boost my immune system?**

The first line of defense would be eating a well-balanced diet with plenty of fruits, vegetables and whole grains. That alone will help.

Beyond that, some research points to specific vitamins and minerals that give an extra boost to the immune system. A few years ago, researchers at the Jean Mayer U.S. Department of Agriculture Human Nutrition Research Center on Aging at Tufts University found evidence that vitamins B6, B12 and especially vitamin E offer a boost to older adults' ability to fight colds and flu. Other Tufts research has indicated that deficiencies in B12 aren't unusual in populations under 50.

You can find B vitamins in a wide variety of foods, including fish, starchy vegetables, non-citrus fruits, low-fat meat and dairy products, and fortified cereals. You can get vitamin E from vegetable oils, nuts, tomato sauce, red peppers and green leafy vegetables. See complete lists on the USDA's National Nutrient Database, available at <http://www.nal.usda.gov/fnic/foodcomp/search/> (click on "Nutrient Lists"). Adults generally need between 1.3 to 1.7 milligrams of vitamin B6 per day; 2.4 milligrams of vitamin B12 per day; and 15 milligrams of vitamin E per day.

In addition, studies sponsored by the National Institutes of Health indicate that getting enough of the mineral selenium is important to keep up your body's defenses. Researchers at the University of North Carolina at Chapel Hill found that the influenza virus mutated into a more dangerous strain in mice who were deficient in selenium. After the mutation occurred, even mice who had plenty of selenium had a tough time fighting it off. Selenium appears to do its work by helping enzymes protect cells from free radicals produced during infection.

Selenium's content in foods tends to vary with how much is in the soil in the area where plants are grown or where animals graze, but generally you can find it in nuts (especially Brazil nuts), whole grain foods (including whole wheat flour and barley), several kinds of fish and seafood, and pork and poultry. Selenium can be toxic in high doses; the Institute of Medicine says the upper intake is 400 micrograms a day.

Finally, there's some evidence that getting plenty of exercise strengthens the immune system, too. And as always, be sure to wash your hands often, and, if you do get sick, stay home so you don't infect other people.

*Chow Line is a service of Ohio State University Extension and the Ohio Agricultural Research and Development Center. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH, 43210-1044, or [filipic.3@cfaes.osu.edu](mailto:filipic.3@cfaes.osu.edu).*



THE OHIO STATE UNIVERSITY  
OHIO STATE UNIVERSITY  
EXTENSION

OHIO AGRICULTURAL RESEARCH  
AND DEVELOPMENT CENTER

---

**For the week of  
Dec. 31, 2006**

---

**By Martha Filipic**  
(614) 292-9833  
[filipic.3@cfaes.osu.edu](mailto:filipic.3@cfaes.osu.edu)

**Note:** Chow Line is going on vacation. Look for the next column on Friday, Jan. 5, for the week of Jan. 14, 2007. In the meantime, please use our archives at <http://www.ag.ohio-state.edu/~news/> (click on Chow Line in the left column).

**Editor:**  
This column was reviewed by Marti Andrews, registered dietitian and lecturer in the Department of Human Nutrition in the College of Education and Human Ecology.

To receive Chow Line electronically, send an e-mail to [filipic.3@cfaes.osu.edu](mailto:filipic.3@cfaes.osu.edu) or sign up to our news subscription service at <http://www.ag.ohio-state.edu/~news/subscribe.php>.

---

**Section of Communications  
and Technology  
News and Media Relations**  
2021 Coffey Road  
Columbus, OH 43210-1044  
(614) 292-2011

208 Research Services  
Building  
1680 Madison Ave.  
Wooster, OH 44691-4096  
(330) 263-3780

OSU Extension embraces human diversity and is committed to ensuring that all educational programs conducted by Ohio State University Extension are available to clientele on a nondiscriminatory basis without regard to race, color, age, gender identity or expression, disability, religion, sexual orientation, national origin, or veteran status.