Nutritional Power of SUNFLOWER Seeds and Oil

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Sunflower seeds are the best whole food source of vitamin E, an antioxidant important to health, according to the USDA Nutrient Database.

FACTS ABOUT VITAMIN E

Sunflower seeds and **NuSun**™ sunflower oil naturally contain high levels of vitamin E, making sunflower seeds a "super" seed of sorts. According to the USDA Nutrient Database,[1] sunflower seeds are the best natural, whole-food source of vitamin E, almost all of which is alpha-tocopherol, the most biologically active form. One ounce of oil-roasted sunflower seeds provides a whopping 76% of the Recommended Dietary Allowance for vitamin E.

NuSun™ sunflower oil outshines other oils for commercial use by providing optimal health benefits, great taste, and performance, while remaining trans fat-free. **NuSun**™ sunflower oil was developed by standard breeding techniques and is therefore a natural, non-transgenic cooking oil. **NuSun**™ sunflower oil works extremely well in commercial cooking and frying with a smoke point of 450˚F and a clean light taste. In addition, the natural stability of **NuSun**™ sunflower oil enhances product fry-life and shelf-life.

Vitamin E: Function and Forms

Vitamin E is a fat-soluble vitamin, which means that some fat is needed to maximize absorption of this important nutrient. Look for vitamin E in foods that contain healthy unsaturated fat, like sunflower seeds and oil.

Vitamin E is also an antioxidant. Antioxidants counteract the effects of oxidative stress by squelching harmful free radicals, thereby protecting cell membranes. Research is showing that healthy cell membranes may play an important role in delaying the development of many chronic diseases, including heart disease, cancer, Alzheimer's, and Parkinson's disease.

Vitamin E and the Chronic Disease Connection

The most promising new research results come from studies in which participants consumed antioxidant-rich foods containing vitamin E, rather than getting large doses of vitamin E from supplements. According to the National Institutes of Health, vitamin E may help delay or prevent coronary heart disease by limiting the oxidation of low-density lipoprotein (LDL), or bad, cholesterol.[2]

Large population studies, such as the U.S. Health Professionals' Follow-up Study, have found an association between higher intakes of vitamin E and lower risks of heart disease.[3] The Iowa Women's Health Study also suggested a protective effect of vitamin E on death from stroke. In this study, the beneficial effects were seen for vitamin E-rich foods, but not for supplemental vitamin E or other antioxidant vitamins.[4]

There is some evidence that vitamin E intake reduces cancer risk by inhibiting cancer cells from multiplying and by promoting cancer cell death. A few population studies have supported an association between higher intakes of vitamin E and a decreased incidence of prostate and breast cancer, although the evidence remains limited.[2,5]

New on the horizon are two break-through studies that have found an association between decreased risk of Alzheimer disease and higher consumption of antioxidant-rich foods, especially foods high in vitamin E. Again, researchers found that vitamin E-rich foods, not supplements, provide the beneficial effects.[6,7]

Researchers found similar results when they looked at the development of Parkinson's disease in over 123,000 men and women. Analysis showed that subjects eating a diet high in vitamin E-rich foods (like sunflower seeds and oil, nuts, leafy green vegetables and whole grains) were at a substantially reduced risk of developing Parkinson's disease compared to those with the lowest intakes of vitamin E from foods.[8]

	Food Serving	Vitamin E* (mg ATE)	% RDA**
Sunflower seeds	**1 ounce**	**11.34**	**76**
NuSun™ Sunflower Oil	**1 tablespoon**	**9.9*** **	**66**
Almonds	1 ounce	7.5	50
Peanut butter	2 tablespoons	3.2	21
Avocado	1 cup, sliced	2.0	13
Olive Oil	1 tablespoon	1.7	11
Spinach	1 cup cooked	1.7	11
Pumpkin seeds	1 ounce	0.3	2

** Vitamin E in milligrams alpha tocopherol equivalents found in USDA Nutrient Database for Standard Reference, Release 15 (August 2002)*
*** Recommended Dietary Allowance for Adults is 15 milligrams*
**** NSA data, 2003*

Vitamin E in Foods
You may be surprised to learn that sunflower seeds and oil have a higher vitamin E content than many other foods that are generally identified as good sources of this important nutrient.

'E'at Your Vitamin E
Getting your vitamin E from foods, rather than supplements, has many advantages, including a plethora of other nutrients that co-exist in vitamin E-rich foods. Besides an abundance of vitamin E, sunflower seeds also contain important nutrients like copper, folate, and selenium, plus fiber, protein, and healthful unsaturated fat, which helps with the absorption of vitamin E.

Try these tasty tips:

- *Swirl sunflower seeds and berries into plain yogurt*
- *Make popcorn using sunflower oil for a healthy snack with no trans fat*
- *Choose sunflower seeds on the salad bar instead of croutons*
- *Use sunflower oil for frying foods for a clean, light taste*

To get the same amount of vitamin E in one ounce of sunflower seeds (11.34 mg ATE), you would need to eat approximately:

1 ounce sunflower seeds, ***or*** about 1.5 ounces of almonds, ***or*** almost 7 tablespoons olive oil

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