



Natural Standard

The Authority on Integrative Medicine

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Natural Standard provides high-quality, evidence-based information about complementary and alternative therapies, diets, exercise and nutrition. For more information, please visit www.naturalstandard.com.

Selenium, Vitamin E Ineffective for Prostate Cancer Prevention



The government halted a major study that was testing whether vitamin E and selenium, either taken alone or together, may help prevent prostate cancer. An early review of the data showed that the supplements were ineffective and may possibly lead to health risks.

Two trends were found: slightly more men who took vitamin E alone developed prostate cancer, and slightly more men who took selenium alone developed type 2 diabetes. However, the results were not statistically significant, meaning they could just be coincidental.

More than 35,000 men aged 50 and older were taking supplements or placebos as part of the Selenium and Vitamin E Cancer Prevention Trial (SELECT). But now the participants are being informed about the findings and told to stop taking their supplements.

Although the participants will no longer take the supplements, the researchers will still monitor their health for the next three years.

The study was double-blinded, which means neither the researchers nor the participants knew which supplements (if any) they were taking. Those who want to know what supplements they were taking can ask the doctors. But according to the researchers, the data will be more accurate if the men wait to find out until the end of the follow-up period.

The [National Cancer Institute \(NCI\)](http://www.nationalcancer.org), which provided most of the funding for SELECT, is sponsoring many other studies that are investigating the effects of different agents on prostate cancer. These agents include polyphenon E, green tea extract, lycopene, soy and di-indolylmethane (DIM), which is a compound found in *Brassica* vegetables such as broccoli and cauliflower, to see if they play a role in prostate cancer prevention.

Currently, there is a promising drug called finasteride that may help prevent prostate cancer. In 2003, the Prostate Cancer Prevention Trial found that finasteride reduced the risk of prostate cancer by 25 percent. However, finasteride has not been approved by the U.S. Food and Drug Administration for this use.

For more information about integrative therapies for prostate cancer prevention, please visit **Natural**

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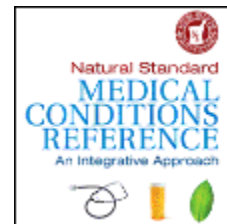
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1. National Cancer Institute (NCI). www.cancer.gov.
2. **Natural Standard** Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.
3. Pak RW, Lanteri VJ, Scheuch JR, et al. Review of vitamin E and selenium in the prevention of prostate cancer: implications of the selenium and vitamin E chemoprevention trial. *Integr Cancer Ther.* 2002 Dec;1(4):338-44. [View Abstract](#)

Natural Standard's Medical Conditions Book Available for Pre-Order

Natural Standard's latest book, [Natural Standard Medical Conditions Reference: An Integrative Approach](#), is available for pre-order. The book provides comprehensive information on more than 100 common medical conditions.



The convenient and user-friendly organization of the book presents monographs alphabetically to help readers quickly find the information they need on the background, symptoms, diagnosis, treatment, integrative therapies and prevention for each medical condition. Conventional treatments are discussed along with integrative therapies, which present a fully integrated approach to patient treatment and medical practice.

Unique to this book are integrative therapies that are categorized by level of evidence: Strong, Good and Unclear or Conflicting Scientific Evidence, as well as Fair Negative or Strong Negative Scientific Evidence. This allows clinicians to easily review available treatment options and the supporting evidence, which they can use to guide their recommendations. Many patients self-prescribe herbs and supplements, and the safety and efficacy information in these monographs is useful to educate and provide an evidence-based context for clinicians.

Each monograph ends with a section on prevention, which includes tips on how to help prevent the condition or perhaps avoid recurrence after treatment is completed. This section presents a more mainstream perspective, a key feature for overall clinician reference.

Integrative therapies have continued to gain popularity and constitute a multi-billion dollar commercial industry. As more patients begin to try integrative approaches, it is increasingly necessary that both patients and clinicians have access to evidence-based information regarding these therapies. This book serves as an all-inclusive reference tool for clinicians and their patients, providing the standard in evidence-based and integrative patient care.

To order a copy of the book, please [click here](#).

Integrated Solutions for Improving Health and Wellness Require Integrated Therapies



Business-To-Business:

Improving the health of the workforce is a primary focal point of the Consumer Health World conference, which will take place on December 8-10, 2008 at the Hyatt Regency Crystal City in Arlington, Virginia.

This industry-leading national conference affords **Natural Standard** constituents an opportunity to network with national and international health and business thought leaders, including HR benefit executives and health insurers and providers, who aim to identify and implement the most effective programs for improving health

and lowering costs.

For more information or to register, please visit www.consumerhealthworld.com.

Business-To-Consumer Expos:

A national schedule of consumer health and lifestyle expos. These conferences are slated to take place in eight locations in 2008. Through a unique and powerful partnership with television stations across the country, tens of thousands of health-conscious consumers are drawn to these expos each day.

For a complete list of locations or for more information, please visit www.themedicalroadshow.com.

If you would like **Natural Standard** to post your event(s) online, please e-mail news@naturalstandard.com.



High-Fat Diet Linked to Alzheimer's

A high-fat diet may play a role in the development of Alzheimer's disease, a new animal study suggests. A diet rich in animal fat and low in omega-3 fatty acids reportedly increased brain markers linked to Alzheimer's disease.

The researchers genetically altered mice to produce two proteins that are found in the brains of Alzheimer's patients: tau proteins and amyloid-beta proteins. Tau proteins prevent nerve cells (called neurons) from functioning properly, while amyloid-beta proteins have been linked to the formation of abnormal deposits in the brain called senile plaques. The mice received either a regular diet or a high-fat diet low in omega-3 fatty acids for nine months.



The mice that ate high-fat diets had 1.5 times more tau protein and 8.7 times more amyloid-beta protein than mice in the control group. The high-fat diet also decreased levels of drebrin protein in the brain, which is another sign of Alzheimer's disease.

"Our findings lead us to believe that a diet containing more omega-3s and less saturated fat could prevent the development of Alzheimer's, at the very least among people genetically predisposed to the disease," said lead author Dr. Frédéric Calon. "We cannot state with any certainty that what we have observed among transgenic mice also occurs in humans, but there is no harm in eating less fat and more omega-3s," he added.

Some of the most recent research indicates that taking steps to improve heart health, such as losing weight, exercising and controlling high blood pressure and high cholesterol, may also help prevent Alzheimer's disease.

In addition, strong evidence suggests that ginkgo may be beneficial in people with early-stage Alzheimer's disease. In fact, some research has shown that it may be as effective as acetylcholinesterase inhibitor drugs such as donepezil (Aricept®).

For more information about integrative therapies for Alzheimer's disease, please visit **Natural Standard's** [Comparative Effectiveness](#) database.

To comment on this story, please [click here](#) to enter **Natural Standard's** blog.

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1. Julien C, Tremblay C, Phivilay A, et al. High-fat diet aggravates amyloid-beta and tau pathologies in the 3xTg-AD mouse model. *Neurobiol Aging*. 2008 Oct 14. [View Abstract](#)
2. **Natural Standard** Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.
3. Mazza M, Capuano A, Bria P, Mazza S. Ginkgo biloba and donepezil: a comparison in the treatment of Alzheimer's dementia in a randomized placebo-controlled double-blind study. *Eur J Neurol*. 2006 Sep;13(9):981-5. [View Abstract](#)
4. Université Laval. www.ulaval.ca

Heavy Metals Found in International Wines



According to scientists, red and white wines from various countries contain potentially harmful amounts of at least seven heavy metals, including vanadium, chromium, manganese, nickel, copper, zinc and lead. The authors suggest that these metals may pose health risks in people who consume wine frequently over an extended period of time.

Declan Naughton and Andrea Petróczi from Kingston University, South West London, did not measure the amounts of metals in wine. Instead, they analyzed data published in scientific journals.

After collecting the data, they estimated the potential safety of 15 wines from Europe, South America and the Middle East by calculating their target hazard quotients (THQs). The THQ formula, developed by the U.S. Environmental Protection Agency (EPA), is used to estimate the potential risks associated with long-term exposure to environmental pollutants. A THQ score below one is considered safe.

"The THQ is a risk assessment designed to avoid underestimation. It therefore incorporates several assumptions, such as maximum absorption of ingested metal ions and lifetime exposures. In contrast, bolus dosing (e.g., drinking) and cross effects with other potential toxins (e.g., alcohol) are not accounted for, nor are the effects on the elderly, the young or those with a clinical condition," the authors wrote.

Italy, Brazil and Argentina produced wines that had safe levels of heavy metals. However, wines from Hungary and Slovakia each had a total THQ level above 350, while wine from the remaining 10 countries, including France, Austria, Spain, Germany, Portugal, Greece, Czech Republic, Jordan, Macedonia and Serbia, each had a total THQ value above 100.

Although drinking red wine in moderation has been linked to positive effects on the heart, the authors caution that the heavy metal contaminants may diminish possible health benefits. The heavy metals may act as pro-oxidants, possibly canceling out the positive antioxidant effects of the wine.

For more information about the antioxidant compounds found in wine, please visit **Natural Standard's** [Foods, Herbs & Supplements](#) database.

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1. **Natural Standard** Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.
2. Naughton D, Petroczi A. Heavy metal ions in wines: meta-analysis of target hazard quotients reveal health risks. *Chemistry Central Journal* 2008, 2:22 (30 October 2008). [View Abstract](#)

Hydrogen Sulfide may Regulate Blood Pressure

Researchers have discovered that hydrogen sulfide, a common gas that smells like rotten eggs, may help regulate blood pressure.

The researchers tested two groups of mice. One group was genetically modified so that they were unable to make an enzyme called cystathionine gamma-lyase (CSE). Researchers suspected that CSE controls the production of hydrogen sulfide. The second group of mice was not genetically altered.



The genetically modified mice could not produce hydrogen sulfide. These mice also experienced increases in blood pressure and diminished blood vessel relaxation. But when the scientists supplemented these mice with hydrogen sulfide, their blood pressure dropped. The authors

concluded that hydrogen sulfide may help regulate blood pressure by relaxing the blood vessels.

Many foods, including garlic, onions and broccoli, are high in sulfur, which can be used to make hydrogen sulfide in the body. In fact, several early studies have shown that garlic and onion may lower blood pressure in humans. Although promising, additional studies are needed to confirm these findings.

For more information about high blood pressure, please visit **Natural Standard's** [Medical Conditions](#) database.

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1. **Natural Standard** Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.
2. Yang G, Wu L, Jiang B, Yang W, Qi J, Cao K, Meng Q, Mustafa AK, Mu W, Zhang S, Snyder SH, Wang R. H₂S as a physiologic vasorelaxant: hypertension in mice with deletion of cystathionine gamma-lyase. *Science*. 2008 Oct 24;322(5901):587-90. [View Abstract](#)

Upcoming Conference: Evidence-Based CAM for Cancer



People who are interested in learning about cancer are invited to attend the 2nd Annual Evidence-Based Complementary and Alternative Cancer Therapies Conference.

The meeting, co-sponsored by the Annie Appleseed Project and Breast Cancer Network of Strength, South Florida (formerly Y-Me), will take place January 8-10, 2009, at the Palm Beach Airport Hilton in West Palm Beach, Florida.

Last year's meeting featured 20 speakers and nearly 200 attendees, including patients, advocates, families, integrative oncologists, acupuncturists, nutritionists, dietitians, yoga instructors, homeopaths, naturopaths and herbalists.

The conference registration fee is \$105 and includes two lunches, two small breakfasts, snacks and a reception on Thursday, January 8, 2009. Healthcare professionals may be eligible to earn Continuing Education (CE) credits.

For more information, please visit www.annieappleseedproject.org.

If you would like **Natural Standard** to post your event(s) online, please e-mail news@naturalstandard.com.

Purple Tomatoes Increased Lifespan of Cancer-Prone Mice

A new study suggests that tomatoes genetically altered to be rich in antioxidants may increase the life span in mice that are predisposed to cancer.

Using genes from the snapdragon flower, researchers in Europe modified tomatoes so they would contain high amounts of anthocyanins, which are powerful antioxidants commonly found in dark berries like blackberries and blueberries. The new genes also caused the tomatoes to become purple in the process.



Anthocyanins have been linked to a reduced risk of cancer, heart disease, diabetes, obesity, and age-related degenerative diseases. However, many of the most commonly eaten fruits and vegetables may not contain enough anthocyanins to gain health benefits.

Mice genetically altered to be prone to cancer ate diets rich in the purple tomatoes or a standard diet with or without normal tomatoes. Those that ate the purple tomatoes lived significantly longer (182 days on average) than mice that ate standard diets (142 days on average).

Although the findings, published in the journal [Nature Biotechnology](#), are promising, more studies are needed to confirm these results.

Tomatoes naturally contain high levels of other antioxidants called lycopene and flavonoids. Lycopene is most abundant in highly processed tomatoes. Also, cooking tomatoes in oil helps the fruit release more lycopene. Flavonoids can be water soluble and fat soluble, so eating foods with water or fat is thought to increase the beneficial effects of these antioxidants.

For more information about tomatoes and their antioxidants, please visit [Natural Standard's Foods, Herbs & Supplements](#) database. For more information about genetically modified foods, please visit [Natural Standard's Genomics & Proteomics](#) database.

To comment on this story, please [click here](#) to enter [Natural Standard's](#) blog.

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1. Butelli E, Titta L, Giorgio M, et al. Enrichment of tomato fruit with health-promoting anthocyanins by expression of select transcription factors. *Nat Biotechnol*. 2008. Oct 26. [View Abstract](#).
2. [Natural Standard](#) Research Collaboration: The Authority on Integrative Medicine. www.naturalstandard.com. Copyright © 2008.

Upcoming Webinars



[Natural Standard](#) is offering a series of upcoming complimentary webinars on integrative medicine. All webinars are recorded and archived at www.naturalstandard.com.

[Natural Standard](#) welcomes feedback and questions about the webinar events. To comment on a recent webinar or to suggest future webinar topics, [click here](#) to enter [Natural Standard's](#) blog.

Diabetes: Integrative Care Cases

Presented by: Chief Editor Catherine Ulbricht, PharmD

- November 12 from 3 p.m. to 4 p.m. Eastern Time
To register, click www1.gotomeeting.com/register/530744372
Attendee call in number: (616) 883-8055, access code 625-144-811

Natural Standard Database Overview

Presented by: Chief Editor Catherine Ulbricht, PharmD

- November 18 from 3 p.m. to 4 p.m. Eastern Time
To register, click www1.gotomeeting.com/register/909798124
Attendee call in number: (641) 715-3222, access code 632-207-107
- December 10 from 3 p.m. to 4 p.m. Eastern Time
To register, click www1.gotomeeting.com/register/270500121
Attendee call in number: (616) 883-8055, access code 644-424-903

An Innovative Program in Applied Natural Products

Presented by: Lana Dvorkin-Camiel, PharmD

- December 2 from 2 p.m. to 3 p.m. Eastern Time
To register, click www1.gotomeeting.com/register/910800626
Attendee call in number: (616) 883-8055, access code 458-016-977

Visit **Natural Standard's** booth

The 43rd American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting and Exhibition will take place on [December 7-11](#) at the Orange County Convention Center in Orlando, Florida. Please visit **Natural Standard** at booth #673.



Welcome!

Natural Standard would like to welcome the following Pharmd D students from Massachusetts College of Pharmacy: Marielle Galera, Jean Gibeault, Vidhi Parikh, Daniel Park and Karen Retsky, as well as Hieu Pham from the University of Missouri, Kansas City.

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