



April 2010

PB1647-Do You need to Take a Vitamin Supplement?

The University of Tennessee Agricultural Extension Service

Follow this and additional works at: http://trace.tennessee.edu/utk_agexheal



Part of the [Nutrition Commons](#)

Recommended Citation

"PB1647-Do You need to Take a Vitamin Supplement?," The University of Tennessee Agricultural Extension Service, R12-5320-19-004-00 E12-2015-00-239-00, http://trace.tennessee.edu/utk_agexheal/67

The publications in this collection represent the historical publishing record of the UT Agricultural Experiment Station and do not necessarily reflect current scientific knowledge or recommendations. Current information about UT Ag Research can be found at the [UT Ag Research website](#).

This Human Nutrition is brought to you for free and open access by the UT Extension Publications at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Health, and Fitness by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

Do you need to take a vitamin Supplement?

Betty Greer, Associate Professor

What you eat is important to your health. Almost every day new research confirms the benefits of healthful eating. The Food Guide Pyramid offers a reliable and easy-to-follow plan for healthful eating. If you eat the recommended number of servings from each of the pyramid food groups and eat a variety of foods from within each of the food groups, you should get all the vitamins, minerals and other nutrients you need. People who consume a well-balanced diet usually do not need a vitamin/mineral supplement.

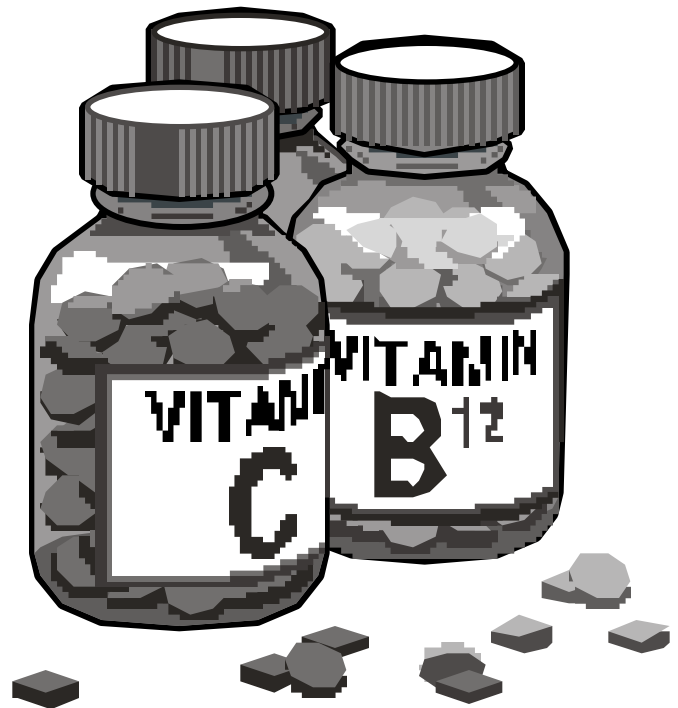
Supplements may benefit some people.

For some people a complete multivitamin/mineral supplement may offer benefits that are safe and effective. A supplement may help in the following situations:

- You do not eat the recommended number of servings from the Food Guide Pyramid, because of your busy lifestyle.
- You are on a very low-calorie weight loss diet.
- You are elderly and eating less.
- You are a strict vegetarian who does not use eggs or dairy products.
- You cannot drink milk or eat cheese or yogurt.
- You are a woman of child-bearing age who does not eat number of servings of fruits, vegetables and beans recommended by the Food Guide Pyramid.
- You have certain medical conditions that make it difficult to eat.

For those who choose to take a supplement, it is best to select a product that provides no more than 100 percent of the Daily Value for vitamins and minerals. Check the Nutrition Facts food label for information about the nutrients included..

If you take a supplement, a multivitamin/mineral supplement is generally the best choice. Supplements of a single nutrient or a few nutrients may cause poor absorption of other nutrients and could lead to nutritional deficiencies. However, if you are at risk for osteoporosis, your doctor may recommend a calcium supplement. Some calcium pills contain a coating which can result in poor absorption.



Test your calcium supplement's digestibility: Drop a calcium supplement in a glass containing 6 ounces of vinegar and stir every few minutes. If it has not dissolved in 30 minutes, it probably will not dissolve in your stomach. Calcium cannot be absorbed if the pill does not dissolve.

A little is essential: too much is harmful

While vitamins, minerals and other food components are healthful and may even prevent certain chronic diseases, **too much can be harmful**. The Food and Nutrition Board has recommended the highest level you should get of certain nutrients. If you con-

sume amounts above this level, you may put yourself at risk for health problems or adverse reactions.

How much is too much?

Listed below is the recommended *upper intake level* for certain nutrients.* These upper levels were established by the Food and Nutrition Board.

Calcium

- Birth to one year — upper levels not established
- One year and older = 2.5 grams/day

Phosphorus

- Birth to one year — upper levels not established
- One to three years = 3 g/day
- Pregnant women = 3.5g/day
- Nine years and older, including breastfeeding women = 4 g/day.

Magnesium

- Birth to one year — upper levels not established
- One to three years = 65 mg/day
- Four to eight years = 110 mg/day
- Nine years and older, including pregnancy and breastfeeding = 350 mg/day

Vitamin D

- Birth to one year = 25 micrograms/day
- One year and older, including pregnancy and breastfeeding = 50 micrograms/day

Fluoride

- Birth to six months = 0.7 mg/day
- Seven to 12 months = 0.9 mg/day
- One to three years = 1.3 mg/day
- Four to eight years = 2.2 mg/day
- Nine and older, including pregnancy and breastfeeding = 10 mg/day

Niacin

- Birth to one year — upper levels not established
- One to three years = 10 mg/day
- Four to eight years = 15 mg/day

- Nine to 13 = 20 mg/day
- 14 to 18 and pregnant and breastfeeding women younger than age 18 = 30mg/day
- 19 and older, including pregnant and breastfeeding ages 19 to 50 year = 35 mg/day

Vitamin B-6

- Birth to one year — upper levels not established
- One to three years = 30 mg/day
- Four to eight years = 40 mg/day
- Nine to 13 years = 60 mg/day
- 14 to 18 years, including pregnant and breastfeeding younger than 18 = 80 mg/day
- 19 and older, including pregnant and breastfeeding ages 19 to 50 year = 100 mg/day

Synthetic folic acid

- Birth to one year — upper levels not established
- One to three years = 300 micrograms/day
- Four to eight years = 400 micrograms/day
- Nine to 13 years = 600 micrograms/day
- 14 to 18 years, including pregnant and breastfeeding younger than 18 = 800 micrograms/day
- 19 and older, including pregnant and breastfeeding ages 19 to 50 year = 1000 micrograms/day

Choline

- Birth to one year — upper levels not established
- One to eight years = 1 g/day
- Nine to 13 years = 2g/day; 14 to 18 years, including pregnant and breastfeeding younger than 18 = 3g/day
- 19 and older, including pregnant and breastfeeding ages 19 to 50 year = 3.5g/day

**The safe Upper Intake Levels have not been established for other nutrients as this time.*

Supplement Health and Education Act of 1994

The Dietary Supplement Health and Education Act of 1994 allows manufacturers to sell dietary supplements without experts or scientists evaluating them first. The law requires that any statements about the supplement be “truthful and not misleading.” Unfortunately, there is no standard for the quality of the science used to support the claims. The burden of proof is on the Food and Drug Administration (FDA) to prove harm, not on the manufacturer to prove they are safe. Food additive and drug manufacturers are governed by a different law. Food additive and drug manufacturers must prove safety using carefully designed research studies. These research studies are reviewed by a panel of experts before approval is granted for a food additive or drug.

Herbal Supplements

The law does not require that herbal preparations be evaluated for purity and consistency of active components. In spite of this, many people consider herbals harmless because they come from “natural” sources. Herbals may contain substances that are harmful by themselves or in combination with other compounds.

Many herbal preparations have not been tested scientifically because it is too costly. When you take herbal preparations, you cannot be sure you are getting the active ingredients* needed to achieve the desired effect. The active ingredients can vary dramatically from one batch to another.

Infants and growing children are at greater risk for any harmful effects of herbals. Pregnant and breast-feeding women should avoid herbals.

Before using herbal supplements, it is best to consult a medical doctor, a pharmacist or a registered dietitian, especially if you are taking other medications. Active ingredients in some herbal supplements can interact with some medications and may cause serious health problems. Be cautious of people claiming to be a “herbalist.” Anyone can claim to be a herbalist because no licensing or educational standards are required for this title.

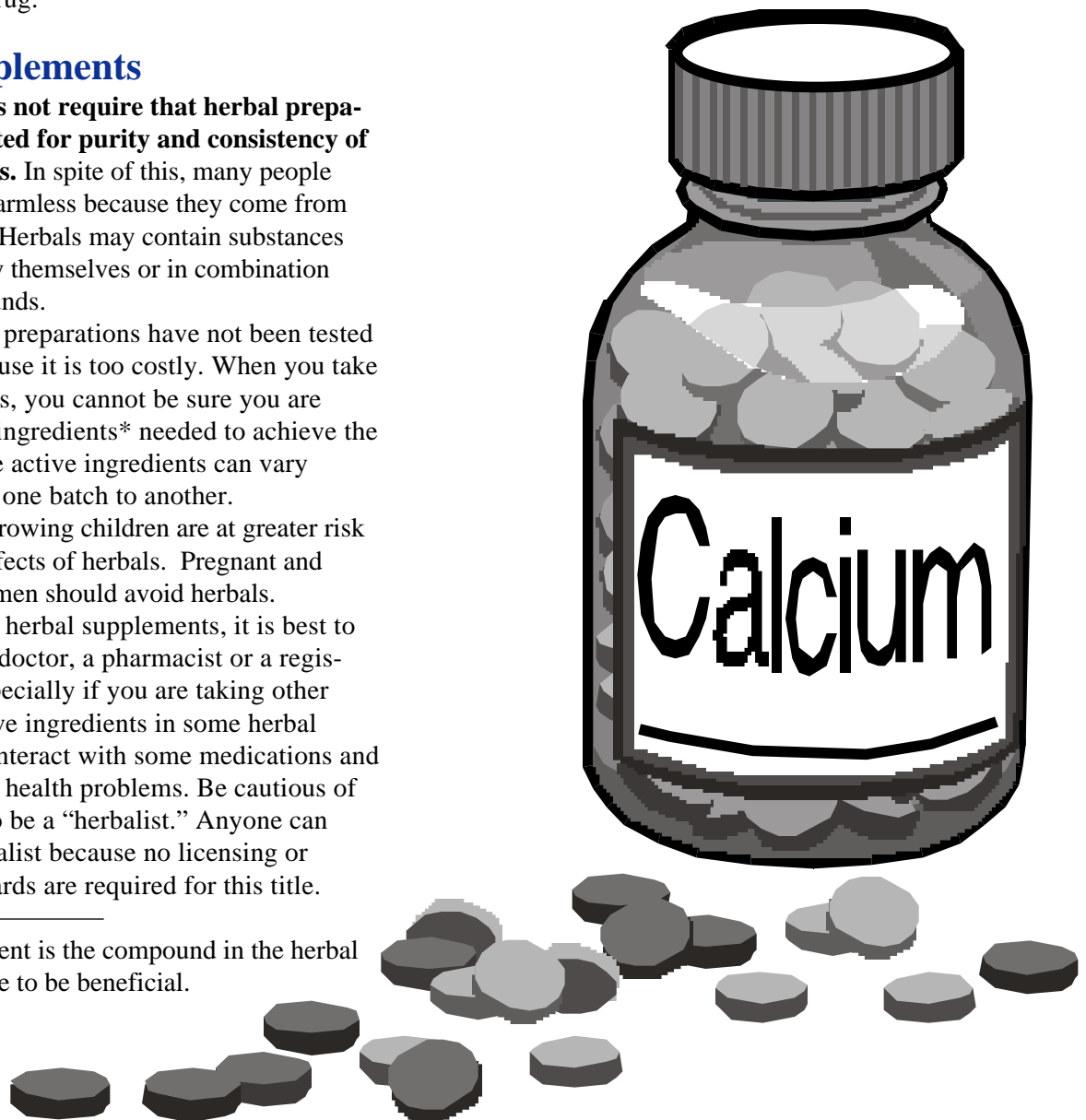
* an active ingredient is the compound in the herbal which is to suppose to be beneficial.

If you are interested in herbal remedies remember these tips:

- Use common sense.
- Be wary of anything that promises a “quick fix.”
- Ignore dramatic statements that go contrary to what most health groups are saying.
- Discuss with your doctor any plans you have about taking herbals. He/she can help you find information about specific remedies and help you avoid potentially harmful interactions.

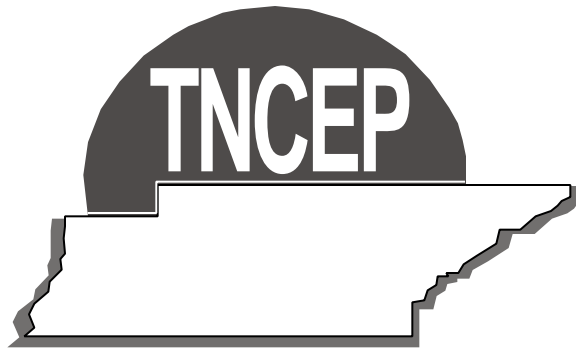
REMEMBER IF IT SOUNDS TOO GOOD TO BE TRUE, IT PROBABLY IS!

There is no substitute for a healthy lifestyle that includes a well-balanced diet, exercise, stress management, rest and giving up unhealthy, high-risk behaviors.



References:

- American Dietetic Association. *Position of the American Dietetic Association: Vitamin and mineral supplementation*. 1996.
- Food and Drug Administration. January 2, 1996. *Talk Paper: FDA Publishes Dietary Supplement Rules*.
- Institute of Food Technologists. *What Does the Public Need to Know About Dietary Supplements?* June 1997.
- The New York Hospital – Cornell Medical Center Memorial Sloan – Kettering Cancer Center. *Current Concepts and Perspectives in Nutrition: A nutrition information service for the Medical Profession. Herbs: Use and Abuse*. Vol. 6 No.2 July 1987
- Tyler, V.E., 1993. *The Honest Herbal: A Sensible Guide to the Use of Herbs and Related Remedies*. Pharmaceutical Products Press, Inc.
- National Academy of Sciences, Food and Nutrition Board, Institute of Medicine. 1997. *Dietary Reference Intakes: Calcium, Phosphorus, Magnesium, vitamin D, and Fluoride*. National Academy Press.
- National Academy of Sciences, Food and Nutrition Board, Institute of Medicine. 1999. *Dietary Reference Intakes: Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin and Choline*. National Academy Press.



TENNESSEE NUTRITION & CONSUMER EDUCATION PROGRAM

Visit the Agricultural Extension Service Web site at:
<http://www.utextension.utk.edu/>

R12-5320-19-004-00 E12-2015-00-239-00

The Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, national origin, sex, age, disability, religion or veteran status and is an Equal Opportunity Employer.
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture,
and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.
Agricultural Extension Service
Charles L. Norman, Dean