



# Herbal Supplements



## Introduction

The number and variety of available herbal medicines have exploded since the passage of the Dietary Supplement Health and Education Act of 1994.

Since ancient times, plants have been valued for their medicinal properties and, many cultures still rely on plants as their major source of medicine. Many cultures, including our own, have a rich history of plant-based medicine. Often you may hear the terms phytomedicine, complementary medicine, alternative medicine or herbal medicine used. Extracts from these medicinal plants as well as whole plant forms have been used to soothe and to heal a wide variety of ailments. Recently herbs have been used to protect against chronic disease.

## DSHEA

Herbal medicines represent a rapidly growing segment of the natural products market. Congress passed the Dietary Supplement Health and Education Act in 1994 (DSHEA, pronounced "D-shay"). This act recognized the role that dietary supplements (which include herbal medicines) can play in health promotion and the prevention of chronic disease. This legislation defined dietary supplements, addressed safety issues and provided a mechanism for monitoring safety. DSHEA also called for good manufacturing practices to be used in producing dietary supplements. It set guidelines for regulating health claims and the labeling of dietary supplements. This act also established the Commission on Dietary Supplement Labeling to develop the supplement facts label that is now in place, and created the Office of Dietary Supplements.

## Safety and Purity

In enacting DSHEA, Congress specifically defined dietary supplements as distinct from food and drugs. DSHEA required outside comprehensive monitoring by the Food and Drug Administration (FDA). Both consumers and health care professionals are concerned about whether herbal products are safe. DSHEA does not require the extensive premarket approval of the FDA that a prescription drug requires. It does maintain the FDA's authority to protect the public from unsafe products. However, the burden of proof that a dietary supplement is unsafe, is now shifted to the

government. DSHEA also maintains the FDA's right to establish good manufacturing practices (GMPs), which are standard for the pharmaceutical industry and felt to be a key to product purity and safety.

## German Commission E

Much of current Western herbal medicine is based upon European phytomedicine. In Europe, herbal medicines are widely used and closely monitored for safety and efficacy.

Germany, in particular, has been a leader in establishing regulations regarding herbal medicines. In 1974, scientific commissions were established within the German Federal Health Agency to review various categories of drugs. Commission E is the interdisciplinary commission of scientists and health professionals charged with reviewing herbal medicines. In its review, the commission considers traditional use; chemical data; clinical, experimental, pharmacological, toxicological and epidemiological studies; patient case records from physicians' files; and unpublished proprietary data from manufacturers to determine the safety and effectiveness of each herbal medicine. It then develops monographs for informing the public of its findings. These monographs have recently been translated into English and are a useful tool for other countries attempting to establish high standards for herbal medicines.

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## Herbal Medicine Explosion

There has been an explosion in the number of herbal products available to consumers since the passage of DSHEA. The following information and practical tips will help you understand what's available and help you sort through the dizzying array of products.

Herbal medicines are often referred to as herbs or botanicals. Technically, the term "botanical" includes all parts of the plant that have medicinal value, such as the roots and rhizomes in addition to the leaves, stems and flowers. Whereas "herb" refers only to leafy plants that don't have woody stems. The term "herbal medicine" perhaps more accurately conveys the intended purpose of the herb, but in reality, you will hear all three terms used interchangeably.

## Buying Tips

When buying herbals, how do you know which brands and products have the highest quality? How do you know which products truly contain what they claim?

"Natural" does not necessarily mean "safe". Herbals are essentially dilute drugs and should be used with the same care and caution as prescription medications. Beware that contamination, mislabeling, and misidentification still can be a problem. Here are five tips to help you choose the best herb brands.

- **Look for herbal extracts that are standardized.** The U.S.P. mark is a clear sign that the manufacturer is following U.S. pharmacopoeia standards.
- **Select products that have been tested.** The label will usually say if the brand has undergone scientific testing.
- **Choose a brand that adheres to higher manufacturing standards than are required.** All herbal product manufacturers have to follow standards established for food processing (Food "Good Manufacturing Practices" or GMP's).
- **Buy only single-herb products that clearly show how much of the herb each dose has.** Some products are mixtures of several herbs with inadequate doses of each.
- **Beware of claims that sound too good to be true. Use your common sense.** If a claim pounds outrageous to you, trust your instinct. No one herbal product can possibly address a wide spectrum of health concerns.

More scientific research is underway to help identify the truly useful herbal products. Pharmaceutical companies have the money to conduct research to determine the benefits and risks of their herbal products.

## Herb and drug interactions - What you should know.

Although "natural," and therefore popularly considered harmless, herbal supplements contain active ingredients that may not safely mix with prescription or over-the-counter (OTC) drugs. **Tell your doctor about any herbal supplements you take.**

In addition, some medical problems may increase your risk of adverse effects if you take herbal products. Talk to your doctor before taking any herbal products if you're pregnant or nursing or have any of the following medical conditions:

- High blood pressure
- Blood-clotting problem
- Thyroid problems
- Heart disease
- Parkinson's disease
- Epilepsy
- Glaucoma
- Enlarged prostate gland
- History of stroke

## Herbals and Surgery

Herbal supplements can be just as dangerous as prescription and OTC drugs when it comes to their interaction with anesthesia. Be sure to tell your doctor about any drugs – including herbal supplements – that you're taking (and how much you're taking) as soon as possible if you're anticipating any surgery. According to the American Society of Anesthesiologists, the following herbs can affect heart rate and blood pressure:

- Ginseng - May cause rapid heartbeat and increase blood pressure.
- Goldenseal - May cause or worsen high blood pressure.
- Ephedra - May elevate blood pressure and heart rate. Ephedra commonly is used as an appetite suppressant.
- Licorice - may increase blood pressure. This herb isn't to be confused with candy licorice, which contains little or no actual licorice. Licorice (*Glycyrrhiza glabra*) commonly is used to treat stomach pain.

And, the following herbals may increase your risk of bleeding.

- Garlic
- Ginger
- Ginkgo
- Feverfew

**Stop taking herbal supplements at least 2 to 3 weeks before surgery to allow them to clear from your body.**

If this isn't possible, bring the herbal product in its original container to the hospital so the anesthesiologist knows exactly what you're taking.

## Resources and References

DeBusk, R. "Herbal Medicines: A Primer" On the Cutting Edge, DCE – DPG Newsletter, Winter Edition, 1999, Vol. 20, No. 6.

McGuffin, M., Hobb, C., Upton, R., Goldberg, A., eds. *American Herbal Products Association's Botanical Safety Handbook: Guidelines for the Safe Use and Labeling for Herbs of Commerce*. Boca Raton, FL, CRC Press; 1997.

Blumenthal, M., Goldberg, A., Gruenwald, J., Hall, T., et al, eds, [Klein, S. and Rister, R. (trans)]. *The Complete Commission E Monographs: Therapeutic Guide to Herbal Medicines*. (English translation). Austin, TX: American Botanical Council and Boston, MA: Integrative Medicine Communications; 1998.

## Additional Useful Resources Books

The PDR *Family Guide to Natural Medicines & Healing Therapies*, Medical Economics Company, 2000.

*Tyler's Honest Herbal: A Sensible Guide to the Use of Herbs and Related Remedies*, 4<sup>th</sup> edition, The Haworth Herbal Press, 1999.

## Web Sites

Office of Dietary Supplements, National Institutes of Health, <http://dietary-supplements.info.nih.gov/>

National Center for Complementary and Alternative Medicine, <http://nccam.nih.gov/>

Mayo Clinic Health Information, <http://www.mayoclinic.com/>

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