

Introduction to the UTEP / UT Austin Cooperative Pharmacy Program's Herbal Safety Website

Text by Armando González Stuart, Ph.D., 2004
Herbal Research Coordinator

The website has two primary purposes: To disseminate information about research findings related to herbal use in our region, as well as to provide information about the safety of herbal product use in both English and Spanish. This feature makes it one of the few bilingual websites specifically developed to disseminate non-commercial information about medicinal plants.

In the past two decades, there has been a dramatic increase in the use of herbal products in the United States. Based on research undertaken by our program, the use of diverse herbal products is even more common in the Texas-Mexico border region than in the rest of the country.

Unfortunately, some of the information currently available about medicinal plants is either misleading, or simply lacking. This is especially true of the medicinal plants from China, India or Mexico, for example, which, aside from a few exceptions, have not been studied in depth for their potential therapeutic applications.

Anecdotal information is not a reliable form of evidence for the safe use of any herbal product.

Medicinal herbs may indeed be a therapeutic option, but only if used properly and under the guidance of a professional. Too often we hear the expression: "Since herbal products are natural, they are safe". Unfortunately, this is not always true, due to a myriad of factors including the following:

- Factual information about many herbs is often lacking.
- A portion of the information available about many herbs currently on the market may be exaggerated or misleading. This is especially true of some individuals and organizations that are mainly interested in marketing their products only for profit, with little regard for the personal welfare of the consumer.
- The lack of adequate quality control present in some herbal product companies around the world leads to variability in the quantity and quality of the products' content. Added to this is the practice of mislabeling some herbal supplements, making the use of these products confusing, risky, or simply ineffective.
- Fortunately, situation is now changing, as some herbal organizations that include competent technical staff are now establishing good manufacturing practices

(GMP), as well as safety checks and controls concerning herbal products. Still, North America is currently not up to par with Western Europe, especially Germany, with respect to research and quality control related to medicinal herbs.

- Some of the multilevel marketing schemes involving herbal products and other supplements tend to foster self-diagnosis, as well as self-medication, both of which can be potentially dangerous to the consumer.
- Some herbal products which are new to the Western market, originating in Asia, Africa or South America, for example, have not been adequately tested for purity, safety or efficacy, prior to their introduction into the United States.
- Serious intoxications have occurred around the globe due to mislabeling of herbal products or erroneous identification of some plant species. A simple mistake made in the correct identification of an herb or the incorrect use of a certain part of a plant can have serious or even fatal results.
- Some plants have not been adequately studied with respect to their use by special populations, including pregnant or lactating women, small children and the elderly, for example.
- This situation is further complicated by the fact that interactions between herbal products and conventional medications can sometimes be serious. Much still needs to be learned about this important topic.

For the reasons outlined above, it is necessary to have a source of factual information regarding medicinal plant use for both the health professionals and the public. This is the principal objective for this website.

The following information is a brief description of the various components of the website:

Overview of the Herbal Safety Website

Objectives: To explain the need for factual information about herbal products used internationally, but with emphasis on the United States-Mexico border, where the prevalence of Complementary and Alternative Medicine (CAM) is much higher (almost 70%) in comparison with the rest of the U.S.A.

Target Audience: The public, as well as physicians and other biomedical personnel.

Languages: English and Spanish.

Content: Information about the widespread use of herbal medicine in our border area and the possible hazards to be encountered in self medication with some herbal products.

Herbal Monographs

Objectives: To provide current technical and evidence-based information on medicinal herbs from the toxicological and pharmacological perspective

Target Audience: Pharmacists, Physicians, Nurses, Alternative Medicine health providers, and students of biomedical sciences.

Language: English (the Spanish translation is currently underway).

Content: Common names and scientific classification of each herb, along with technical information related to its constituents, active principles (if known), possible actions on the human body and potential adverse effects including herb- drug interactions. All herbal monographs contain at least one color photograph of the plant in order to facilitate identification of the herb.

A table of selected clinical trials and their results is included for those plants that have been scientifically investigated, such as Ginkgo, Echinacea and garlic, for example.

Comments: Currently, 16 out of a prospective 35 monographs have been completed.

Herbal Fact Sheets

Objectives: To provide the public with a brief, reader-friendly source of information in non technical terms, about the safety and precautions in herbal use.

Target Audience: The public.

Languages: English and Spanish.

Content: The common names of the herb in English and Spanish, as well as the scientific name are also provided for species verification purposes. The purported medicinal applications, the forms in which it is used, and the possible risks or side effects are all clearly indicated. All fact sheets contain at least one color photograph of the plant in order to facilitate identification of the herb.

Comments: Currently, 39 fact sheets have been completed and the great majority of them have already been translated into Spanish.

Publications

Objectives: To provide scientists and students with articles written by the website personnel related to safety issues regarding Complementary and Alternative Medicines (CAM), with emphasis on herbal use by our border populations.

Target Audience: Pharmacists, Physicians, Nurses, and students of biomedical sciences.

Language: English.

Content: Technical information regarding CAM use in the Paso del Norte region.

Comments: These articles have been published by peer-reviewed journals.

Special Populations

Objectives: To inform the public of possible risks associated with herbal use by special populations which are deemed more at risk of a possible herb side effect, such as:

- 1). Pregnant and lactating women.
- 2). Patients who are planning to undergo surgery.
- 3). People who suffer from allergies, such as asthma, for example.

Target Audience: The public, as well as physicians and other biomedical personnel.

Languages: English

Content: This section contains information, in table form, about specific herbs that may contain toxic compounds or that could pose a risk to the consumer.

Comments: The translation of this section into Spanish is currently underway.

Presentations

Objectives: To provide information about scientific presentations given to schools, hospitals and universities about Complementary and Alternative Medicine (CAM), as well as about the main herbal products used in our border area (El Paso, Texas and Ciudad Juárez, Mexico).

Target Audience: The public, as well as physicians and other biomedical personnel.

Language: English.

Content: Various topics related to CAM use in the Paso del Norte region.

Promotora curriculum

Objectives: To provide information about the importance of health promoters (promotoras) in our area, especially among the underserved populations of the Paso del Norte region.

Target Audience: Health promoters and other health care providers.

Language: English.

Content: Basic information about the safe use of herbs and herbal products.

Toxic Plants Found in Schools, Gardens, and Homes

Objectives: To inform of the danger involved in having certain potentially poisonous plants in the school, garden, and home.

Target Audience: Parents, teachers, students, and health care providers.

Language: English.

Content: Information about the most important poisonous plants in our region and their toxic effects.

Comments: This section is currently in preparation and will contain color photographs to help identify the plants.

Staff directory

Objectives: To provide the user with a means to ask a question about the safety of a particular herb or remedy, as well as to provide the public with information about the research team responsible for the website content.

Target Audience: The public.

Language: English.

Content: Curricular biographical data and contact information (mail, telephone, fax, and e-mail) for all website personnel.

Comments: The website e-mail is now operative: **herbalsafety@utep.edu**