

American Herbal Pharmacopoeia®
and Therapeutic Compendium
Standards of Analysis, Quality Control, and Therapeutics

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Tel: 831-461-6318
FAX: 831-475-6219
email: herbal@got.net

AHP Releases Monograph Standards and Therapeutic Compendium for *Echinacea pallida* Root (*Echinacea pallida* (Nutt.) Nutt.)

The American Herbal Pharmacopoeia® (AHP), a California-based non-profit research organization, has released its quality control standards and therapeutic compendium for the botanical dietary supplement *Echinacea pallida* Root (*Echinacea pallida* (Nutt.) Nutt.) Each monograph establishes national standards for assuring authenticity, purity, and quality control of the monographed botanical. Accompanying the standards is the AHP Therapeutic Compendium which provides a complete and critical review of the pharmacological and safety data currently available, including information on pharmacokinetics, pharmacodynamics, actions, medical indications, historical and modern and traditional use, structure and function claims, dosages, interactions, side effects, contraindications, toxicology, and more.

Echinacea pallida has had a history of a “lost identity”, being either treated as interchangeable with other *Echinacea* species, or simply ignored in view of the more popular *E. purpurea* and *E. angustifolia*. However, discoveries made towards the end of the last century have demonstrated that *E. pallida* has a unique chemistry profile, and it has even been claimed to have the “highest diversity of constituents” among *Echinacea* species in general. It follows that the physiologic activity and therapeutic applications of *E. pallida* may differ from those of other *Echinacea* species that are more commonly used in trade.

The AHP monograph finally brings clarity to the many uncertainties often associated with the use of *E. pallida* root. The monograph includes a detailed characteristic of the constituent profile, with an exhaustive focus on ketoalkenyne, the main constituents of interest in the botanical. The analytical methodology developed by AHP is geared towards fast and conclusive differentiation of *E. pallida* from potential adulterants

and other medicinal *Echinacea* species. The method is based on the unique profile of caffeic acid derivatives typical for *E. pallida* root.

The Therapeutic Compendium included with the monograph describes the latest on the medicinal applications of the root, as well as historical data. The monograph is released not long after the time when potential bioavailability of ketoalkenynes has been demonstrated. Several in vitro studies have shown a promising activity of these compounds against cancer cells, including reduction of drug resistance. Animal data highlights the possibility of use of *E. pallida* for decreasing the toxicity of pharmaceutical chemotherapy drugs. These applications echo some of the evidence on the historical use of *E. pallida* by the Eclectic physicians of the late 19th-early 20th century USA. Together with the more popular and well-known uses, such as for prevention and treatment of respiratory infections, and for control of inflammation, the section provides a comprehensive view of varied, albeit sparsely researched, potential applications of the species.

Echinacea pallida Root concludes the *Echinacea* series of AHP monographs. *Echinacea angustifolia* Root was released earlier this year (2010). Also available are *Echinacea purpurea* Root (2004) and *Echinacea purpurea* Aerial Parts (2007).

***Echinacea pallida* Root and the other *Echinacea* monographs can be ordered http://www.herbal-ahp.org/order_online.htm Accompanying AHP-Verified Botanical Reference Materials and prices are listed at http://www.herbal-ahp.org/bot_ref.htm**