

The Longwood Herbal Task Force
(<http://www.mcp.edu/herbal/>) and
The Center for Holistic Pediatric Education and Research
(<http://www.childrenshospital.org/holistic/>)

Clinician Information Summary

CHAMOMILE

(*Matricaria recutita*, *Anthemis nobilis*)

SUMMARY

Chamomile is a widely used medicinal herb, primarily used as a sedative, anxiolytic, antispasmodic, and treatment for mild skin irritation and inflammation. Chamomile appears to have potential for the treatment of eczema and mucositis, although randomized controlled studies have shown conflicting results. Further clinical trials are also needed to assess chamomile's efficacy as a sedative, anxiolytic and antispasmodic. Chamomile is safe when used as directed, although patients with hypersensitivity to ragweed and other members of the Compositae family should use caution. There are no clinical trails assessing the safety of chamomile for children and pregnant women. Although there are two popular species of Chamomile, German chamomile (*Matricaria recutita*) is the most widely studied and used.

POPULAR USES

External uses: Minor wounds, ulcers, chicken pox, diaper rash, poison ivy, mouth sores, cracked nipples, hemorrhoids, mastitis, gout, rheumatic pain, and conjunctivitis

Internal uses: Sedative and anxiolytic for hysteria, nervousness, nightmares, and insomnia; treatment of colds and flu, flatulence, indigestion, diarrhea, anorexia, motion sickness, nausea, vomiting, colic, croup, and fevers, and to induce menstruation and strengthen the uterus.

ACTIVE CONSTITUENTS

German chamomile: Terpenoids (bisabolol, chamazulene, and others), flavonoids (apigenin and others)

(continued)

Roman chamomile: Terpenoids (chamazulene and others), flavonoids (apigenin and others), angelic and tiglic acid esters, coumarins

SCIENTIFIC DATA

In vitro: In isolated guinea pig ileum, German chamomile inhibits spasms. Constituents of German chamomile displace flunitrazepam from benzodiazepine binding sites in rat cerebellar membranes and Muscimol from GABA receptors in rat cortical membranes. Chamomile's terpenoid and flavonoid compounds exhibit anti-inflammatory, antimicrobial, antiviral, antifungal, antiallergic and antioxidative effects *in vitro*.

In animals: In mice, intraperitoneal apigenin significantly reduced small and large intestinal transit time and reduced castor oil induced diarrhea. In rats, bisabolol inhibited stomach ulcers caused by stressful stimuli, alcohol, and indomethacin; it also reduced motor activity. In ovariectomized rats, inhaling chamomile oil vapor decreased the stress-induced increase of plasma ACTH. In mice, apigenin had anxiolytic activity without sedation or muscle relaxation at doses similar to those used for benzodiazepines; higher doses produced mild sedation. Anti-inflammatory activities of chamomile are well documented in animals. Topical apigenin inhibited skin cancer in mice.

In humans: Double blind controlled studies using chamomile mouthwash showed mixed results in the treatment of mucositis due to chemotherapy or radiation. Double blind controlled studies on chamomile's topical anti-inflammatory effects have also shown mixed results. In a prospective, double blind, randomized study, children with acute, non-complicated diarrhea had their diarrhea end significantly sooner with a pectin/chamomile preparation than with placebo. In a double blind study of 68 colicky infants, colic was eliminated significantly more often in those receiving an herbal tea containing German chamomile than in the controls.

TOXICITY AND SIDE EFFECTS

Side effects: Allergic reactions are rare. Some individuals allergic to other members of the Compositae family (ragweed, daisies, etc.) are allergic to chamomile. Contact dermatitis has

(continued)

been reported.

Interactions with other medications: No herb-drug interactions have been reported with chamomile. Some herbalists caution against concurrent use of large doses of chamomile and anticoagulant therapy because of chamomile's coumarin constituents.

Contraindications: Allergy to other members of the Compositae family

Pregnancy and lactation: No clinical studies evaluating safety. Non-teratogenic. Generally recognized as safe.

Pediatric use: No clinical studies or systematic surveillance evaluating safety.

ADDITIONAL RESOURCES

- Chamomile Complete Monograph: <http://www.mcp.edu/herbal/chamomile/chamomile.pdf>
- Chamomile Patient Fact Sheet: <http://www.mcp.edu/herbal/chamomile/chamomile.ph.pdf>
- OnHealth.com: Monograph based on the German Commission E monograph:
<http://onhealth.com/alternative/resource/herbs/item,15963.asp>
- HerbMed from the Alternative Medicine Foundation: Evidence-based monograph with links to Medline: <http://www.amfoundation.org/herbs/Matricaria.htm>