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FILE: ■ German Chamomile (*Matricaria recutita*)

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RE: German Chamomile: A Monograph

Monograph: *Matricaria chamomilla* (German chamomile). *Altern Med Rev.* 2008;13(1):58-62.

Chamomile, a widely recognized herb in Western culture, is a common ingredient in herbal teas and is used topically in health and beauty products for its soothing and anti-inflammatory effects on the skin. Its use has been recorded historically by Hippocrates, Galen, and Asclepius. Infusions, liquid extracts, and essential oils are made from the plant's fresh and dried flower heads.

German chamomile (*Matricaria recutita*) is the more commonly used of the two species of chamomile, the other being Roman chamomile (*Chamaemelum nobile*). Both annual herbs belong to the Asteraceae/Compositae family and are similar in appearance, chemical properties, and general applications.

German chamomile flowers contain 0.24- to 2.0-percent volatile oil that is blue. The two key constituents — (-)-alpha-bisabolol and chamazulene — account for 50% to 65% of total volatile oil content. Other components include (-)-alpha-bisabolol oxide A and B, (-)-alpha-bisabolone oxide A, spiroethers, sesquiterpenes, cadinene, farnesene, furfural, spathulenol, and proazulene. Chamomile also contains up to 8% flavone glycosides and flavonols; up to 10% mucilage polysaccharides; up to 0.3% choline; and about 0.1% coumarins.

In vitro and animal studies have documented the herb's pharmacological actions, including antibacterial, antifungal, anti-inflammatory, antispasmodic, anti-ulcer, antiviral, and sedative effects.

Few well-designed, randomized, double-blind, placebo-controlled studies on the benefits of chamomile are available. Cited in this monograph are studies supporting its use for sleep enhancement, alleviation of diarrhea in children, colic relief in infants, wound healing, reduction of mucositis in patients undergoing radiation treatment, and relief of eczema symptoms.

Only one report of a possible chamomile-drug interaction has been documented: a 70-year-old woman on warfarin was admitted to the hospital with multiple internal hemorrhages after using chamomile products to alleviate upper respiratory tract symptoms.¹ That chamomile contributed to

the hemorrhaging is doubtful, as the coumarin compounds in German chamomile lack the chemical configuration needed for human anticoagulant activity.²

Animal studies confirm the safety associated with the use of chamomile. Persons allergic to the Asteraceae/Compositae family (which includes ragweed, chrysanthemum, marigold, and daisy) have been reported to experience crossover hypersensitivity reactions to chamomile and should avoid using products containing the herb.

Oral administration in adults for traditional uses are generally dried flower heads (2-8 g as an infusion three times daily); or liquid extract/tincture (1-6 mL up to three times daily of 1:1 potency; 7-15 mL up to three times daily of 1:5 potency).

—Shari Henson

References

¹Segal R, Pilote L. Warfarin interaction with *Matricaria chamomilla*. *Can Med Assoc J*. 2006;174:1281-1282.

²Majerus PW, Tollefsen DM. Anticoagulant, thrombolytic, and natiplatelet drugs. In: Hardman JG, Limbird LE, Molinoff PB, Gilman AG, eds. *Goodman & Gilman's The Pharmacological Basis of Therapeutics*. 10th ed. New York, NY: McGraw-Hill; 2001:1519-1538.

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