

# Chamomile

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German chamomile  
*Matricaria recutita*



## *Part Used*

Dried flowers

## *Common/Potential Uses*

### *Internal Uses*

- Infant colic
- Peptic ulcers
- Indigestion and heartburn
- Irritable bowel syndrome
- Mouthwash for canker sores and other irritations of the mouth and gums
- Restlessness or sleeplessness in infants (especially with teething) and young children

### *External Use*

- Inflammatory skin conditions (such as eczema)

### *Active Constituents*

Volatile oil components:  $\alpha$ -bisabolol,  $\alpha$ -bisabolol oxides A and B, and matricin, as well as flavonoids, including apigenin and luteolin

### *How It Works*

Chamomile exerts both an anti-inflammatory and an antispasmodic effect in the gastrointestinal tract. Topically, it also has anti-inflammatory properties. It promotes wound healing and has mild antibacterial properties.

### *Recommended Use*

Chamomile is typically taken in tea form. Boiling water is poured over a heaping tablespoon of dried flowers and covered. After 5 to 10 minutes, the water is passed through a tea strainer. A cup of freshly brewed tea is drunk three to four times daily, between meals.

Alternatively, you could mix a dried, encapsulated product or alcohol-based tincture with hot water. The dosage should be 2 to 3 grams of the encapsulated product or 1/2 to 1 teaspoon of the tincture three times daily, between meals.

Use chamomile as a mouthwash for irritations and minor infections in the mouth. Topical preparations for use on the skin are usually in the form of creams or ointments that contain 3 to 10 percent chamomile. Medicinal baths containing chamomile can also be used for inflammatory skin conditions.

### *Side Effects*

Although rare, allergic reactions to chamomile have been reported. These reactions include bronchial constriction with internal use and allergic skin reactions following topical use. While such side effects are extremely uncommon, people with allergies to plants of the Asteraceae family (e.g., ragweed, asters, and chrysanthemums) should avoid using chamomile.

### Safety Issues/Drug Interactions

Current European monographs list no contraindication to the use of chamomile during pregnancy or lactation (see text below).

*I am sorry to say that Peter was not very well during the evening. His mother put him to bed and made some chamomile tea; and she gave a dose to Peter! One tablespoon to be taken at bedtime.*

BEATRIX POTTER, *THE TALE OF PETER RABBIT*

CHAMOMILE is as popular in German herbal medicine as ginseng is in Chinese herbal medicine. Used historically as a folk remedy for digestive complaints and inflammatory skin conditions, chamomile continues to be a cornerstone of European and American herbal medicine today. With 4,000 tons of chamomile produced annually, the herb has become important worldwide both medically and economically.<sup>1</sup>

## PLANT FACTS

Since the intent of this book is to transform you into a responsible herbal consumer, not a botanist, I won't burden you with the confusion surrounding different forms of chamomile. Two major forms are used worldwide—German and Roman chamomile. With the exception of Great Britain, where Roman chamomile is preferred, German chamomile (previously referred to in older literature as *Matricaria chamomilla*) is the most commonly used and best researched form of chamomile.<sup>2</sup> Since it's also the most frequently used in the United States, we'll limit our discussion in this chapter to the German form.

Chamomile is a member of the daisy family and is native to Europe and western Asia. An annual, it grows from 1 to 2 feet high and forms distinctive yellow flowers with white rays. The flowers typically bloom in late July

or early August.<sup>3</sup> Traditional and modern medical preparations of chamomile use the flower heads just prior to blooming.

## HISTORY

German and Roman chamomile have been used for centuries as medicinal plants. The Egyptians believed the plant was a treatment for “ague,” or malarial fever. The origin of the name *chamomile* comes from the Greek *kamai* (on the ground) and *melon* (an apple). This name referred to the freshly harvested plant, which carries the scent of apples. During the Middle Ages, the plant was cultivated for use as an aromatic stewing herb.<sup>4</sup>

In Europe, the herb became something of a cure-all. Germans use the phrase *alles zutraut* (capable of anything) to describe chamomile. The plant reached its pinnacle of popularity in 1987, when the Germans named it “plant of the year” (a kind of Academy Award of plants, I guess).<sup>5</sup>

Today, the chamomile industry is huge in Europe. Chamomile is found in liquid and dried preparations for internal use, ointments, creams, bath products, cosmetics, and even hair dyes. In Germany alone, more than ninety licensed products contain chamomile.

## MEDICALLY ACTIVE CONSTITUENTS

The flowers of chamomile contain volatile oil, anywhere from 1 to 2 percent. Key constituents in the volatile oil are  $\alpha$ -bisabolol,  $\alpha$ -bisabolol oxides A and B, and matricin. Matricin is usually converted to chamazulene during the extraction process. German chamomile extracts are often produced to contain an established amount of chamazulene and  $\alpha$ -bisabolol.

Also among chamomile’s active constituents are bioflavonoids. These include apigenin, luteolin, and quercetin.<sup>6</sup>

The medical benefits of chamomile result from a complex interplay of these two groups. The primary anti-inflammatory activity was originally attributed to the essential oil constituents;<sup>7,8</sup> however, more recent studies with flavonoids indicate that they also possess significant anti-inflammatory activity.<sup>9</sup>

Both components also contribute to the antispasmodic, or muscle-relaxing, effect of chamomile. This effect is particularly noteworthy in the smooth muscles of the gastrointestinal tract.<sup>10</sup>

Recently, apigenin (as well as other flavonoids) was found to inhibit the growth of *Helicobacter pylori* in test tubes,<sup>11</sup> a bacteria thought to contribute to peptic ulcer disease. This may point to wider use of chamomile in the long-term management of peptic ulcer disease.

## HEALTH CARE APPLICATIONS

Americans have relegated chamomile to the status of a “calming” herb. This is largely because of its use in commercial teas suggesting a calming or sleep-inducing effect. But the clinical applications of chamomile are more wide-ranging than this. For example, homeopathic chamomile products are available for teething and colic in young children. Rudolf Fritz Weiss (see Part 3) advocates the use of chamomile for intestinal ailments and skin conditions. He suggests chamomile as a gentle, long-term alternative to aggressive, short-term therapies such as atropine and cortisone.<sup>12</sup>

Varo Tyler, a respected advocate for the rational use of herbal medicine in the United States, gets right to the point when he calls chamomile “perhaps the best example of the wide chasm separating medicinal practice in Western Europe and the United States.”<sup>13</sup> However, despite European enthusiasm for chamomile, well-controlled clinical trials would help focus the use of this popular herb.

### GASTROINTESTINAL TRACT SPASMS AND IRRITATION

Peter Rabbit’s mother was an insightful herbalist. Along with peppermint, chamomile is probably the perfect embodiment of the term *carminative* (see “Carminatives” in Part 4). The major advantage of chamomile is its noted anti-inflammatory action. This makes it valuable for a wide range of gastrointestinal (GI) tract disorders.

While I’m attempting to be specific here, keep in mind that chamomile’s broad-spectrum approach to the GI tract leaves room for you to use it to treat a variety of conditions and even for mild, soothing effects. It

should be considered whenever the GI tract is either cramping or irritated due to anxiety or stress. Chamomile also heals and calms the GI tract following a bout of diarrhea.

Use chamomile as a supportive treatment in the following conditions:<sup>14</sup>

- Irritable bowel syndrome
- Indigestion
- Infant colic
- Gastritis
- Peptic ulcer disease
- Cramping secondary to diarrhea
- Spastic colon

One study found that a tea that combined chamomile, vervain, licorice, fennel, and lemon balm was effective in relieving colic in infants more effectively than a placebo tea.<sup>15</sup> The dose of tea used in the study was approximately 1/2 cup (150 milliliters) given during each colic episode for a maximum of three times per day.

Remember that inflammatory conditions of the GI tract, such as ulcers, Crohn's disease, and ulcerative colitis, can also lead to bleeding and possible anemia. While chamomile may help in the long-term management of these serious conditions, it should not be thought of as a substitute for proper medical monitoring and more aggressive short-term therapies.

Chamomile can be used as part of a program to keep your GI tract well. In addition to helping maintain normal GI tone, it also stimulates normal digestion.<sup>16</sup>

### **MOUTH IRRITATIONS AND GUM DISEASE**

Because of its soothing effect on mucous membranes (the area lining the inside of your mouth and GI tract) and healing properties, chamomile is also useful for the treatment of canker sores and other irritations or sores inside the mouth.<sup>17</sup>

The added benefit of antibacterial activity by the essential oil constituents makes it potentially valuable in the treatment and prevention of gum diseases such as gingivitis.<sup>18</sup> The best approach here is to gargle with a strong tea several times daily.

Topical application to the gums is also useful for infants during teething. I usually recommend that parents apply a strong tea or liquid extract directly to the gums every 2 to 3 hours. Chamomile will help your child's gums feel better and may also exert a calming effect that will help them sleep.

### **SKIN IRRITATIONS AND ECZEMA**

Chamomile is widely used in Europe for the treatment of skin irritations.<sup>19</sup> Topical chamomile creams and ointments are used to treat eczema, insect bites, and poison ivy or poison oak rashes. I find it useful in combination with calendula (marigold) ointment or cream for the treatment of diaper rash in infants.

Owing to the aforementioned wound-healing and antibacterial effects, Europeans often apply chamomile in wound dressings. Topical use of chamomile ointment was also found to successfully treat mild stasis ulcers in elderly bed-ridden patients.<sup>20</sup>

*Note:* Please use chamomile as a wound-healing treatment only under the supervision of a health care professional.

Topically, chamomile may also work well for eczema. Remember, it's not the knockout punch some people are looking for. One study found chamomile to be about 60 percent as strong as 0.25 percent hydrocortisone when applied topically.<sup>21</sup> In a study with eczema patients previously treated with a topical anti-inflammatory (difluocortolone valerate), a topical chamomile cream was found to be about as effective as 0.25% hydrocortisone in alleviating symptoms.<sup>22</sup>

## HOW TO USE CHAMOMILE

The German Commission E monograph<sup>23</sup> gives the following instructions for the preparation and use of chamomile tea for medicinal purposes:

Pour hot water (150 ml) over a heaped tablespoonful of matricaria flowers (approx. 3 grams), covered, and after 5–10 minutes, pass through a tea strainer. Unless otherwise prescribed, for gastrointestinal complaints a cup of the freshly prepared tea is drunk three or four times a day between meals. For inflammation of the mucous mem-

branes of the mouth and throat, the freshly prepared tea is used as a wash or gargle.

If you don't want to prepare your own chamomile tea, take a short-cut: use either a powdered, encapsulated herb preparation or an alcohol-based tincture. The dosage of the powdered herb is 2 to 3 grams, two to three times daily between meals. Tinctures are usually dosed at ½ to 1 teaspoon three times daily. I'm a big proponent of placing these delivery forms in hot water and drinking them like a tea. European extracts, which are usually liquid based, are much stronger than U.S. commercial chamomile products. They would be a welcome addition to herbal product offerings in the United States.

For infants and young children, I recommend one-half the adult dosage. Chamomile tea is unique among the many herbs discussed in this book because it actually tastes good. This makes it a bit easier to give directly to infants.

Typically, European creams and ointments are usually made with a 3 to 10 percent concentration of chamomile. A similar concentration is also used for medicinal baths and poultices.

Side effects are extremely rare with either internal or external use of chamomile tea. The big red flag that's been waved in the faces of herb users is the risk of an allergic reaction. Bronchial tightness and shortness of breath, as well as a skin rash, have been reported. How common has this been? Between the years 1887 and 1982, fifty allergic reactions resulting from chamomile use have been reported. Only five could be attributed to German chamomile!<sup>24</sup>

Concern about allergies is primarily limited to those with allergies to members of the Asteraceae family. If you're allergic to ragweed, asters, or chrysanthemums, you're probably better off avoiding chamomile.

European monographs list no contraindication to the use of chamomile during pregnancy and lactation. One tragic case has been reported of a woman using a chamomile-containing enema during labor, leading to the death of her newborn.<sup>25</sup> However, this should not dissuade women from using it orally. No interactions with commonly prescribed medications have been reported.

## RELATED CONDITIONS DISCUSSED IN PART 6

- Blocked tear duct
- Canker sores
- Colic
- Diarrhea
- Eczema
- Heartburn
- Insomnia
- Irritable bowel syndrome