Clove bud essential oil contains the phenol eugenol, a powerful anti-inflammatory agent that inhibits prostaglandin E (PGE) synthesis. Research shows that eugenol is strongly antiseptic—supporting its traditional use as an analgesic dentrifice for toothache—and antiseptic against bacterial and viral infections. Eugenol also reduces gut motility in diarrhea and has even been shown to inhibit platelet aggregation in vitro. In addition, acetyl eugenol, another component of clove oil, acts as a strong antispasmodic, which is helpful for easing coughs and, when applied topically, for relieving muscle spasms.1,4

Researchers from Minia University in Egypt tested various essential oils to determine their inhibitory effects on dermatophytic fungi—any of several fungi that cause parasitic skin disease in humans. Results showed that clove and peppermint oils provided strong fungistatic effects, seriously inhibiting the growth of tested fungi. Such impressive results prompted researchers to suggest adding clove and peppermint oils in antidermatophytic drugs. This study is just another confirmation for what many aromatherapists already know—clove oil is an effective fungicide for athlete’s foot and scabies.3,7

The antimicrobial activity of clove bud essential oil has also been confirmed in several studies. For example, researchers examined several essential oils to determine their effect on enteropathogenic (microorganisms that cause disease primarily in the intestinal tract) and spoilage bacteria strains. The essential oils of clove bud (Eugenia caryophyllata) and thyme (Thymus vulgaris) proved to be particularly effective, providing a large spectra action. In addition, studies show clove bud oil also inhibits many oral bacteria such as Streptococcus sp.2,8,9

Researchers in France conducted a study to determine which essential oils would purify and deodorize the air, destroying bacteria such as Proteus, Staphylococcus aureus and Streptococcus pyogenes. Several vaporized essential oils were found to effectively destroy 90% of microbes within 3 hours, including clove, lavender, lemon, mint, pine, rosemary and thyme. Furthermore, in one randomized trial of 182 institutionalized patients, a mixture of the essential oils of clove, cinnamon, lavender, thyme and mint appeared to decrease the frequency of bouts of chronic bronchitis. One advantage of inhaling vaporized essential oils is that, in many cases, infections linger in the sinuses between bouts. Another study published in the Journal of Applied Bacteriology showed that the essential oil of clove had a definite germicidal effect against Candida albicans and various bacteria, including Staphylococcus aureus, Klebsiella pneumoniae, Pseudomonas aeruginosa, Clostridium perfringens, and Escherichia coli.1,2,10

Psychologically, clove oil provides an arousing, strengthening aroma, commonly used to combat frigidity and impotence, since it enhances libido by directly stimulating the reproductive genital organs. Clove oil is also equally energizing as a mental stimulant.3

Caution should be exercised when applying clove oil topically, as it can cause unpleasant or even painful skin reactions in sensitive individuals. Clove oil is contraindicated for individuals with hypertension or abdominal pain and those taking the maximum recommended dosage of acetaminophen, in order to avoid any possibility for potentiation of this medication. Individuals undergoing anticoagulant therapy should avoid using clove oil. Special care should also be taken to ensure that all essential oils are kept out of the reach of children. For example, a lethal dose of clove oil for a 3-year-old child is 19 ml. (taken orally).3

References: