Clove

What is it?

Clove is a plant grown in parts of Asia and South America. People use the oils, dried flower buds, leaves, and stems to make medicine.

Clove is most commonly applied directly to the gums for toothache, pain control during dental work, and other dental-related issues. But there is limited scientific research to support these and other uses.

In foods and beverages, clove is used as a flavoring.

In manufacturing, clove is used in toothpaste, soaps, cosmetics, perfumes, and cigarettes. Clove cigarettes, also called kreteks, generally contain 60% to 80% tobacco and 20% to 40% ground clove.

How effective is it?
Natural Medicines Comprehensive Database rates effectiveness based on scientific evidence according to the following scale: Effective, Likely Effective, Possibly Effective, Possibly Ineffective, Likely Ineffective, Ineffective, and Insufficient Evidence to Rate.

The effectiveness ratings for CLOVE are as follows:

**Insufficient evidence to rate effectiveness for...**

- **Small tears in the lining of the anus (anal fissures).** Early research shows that applying a clove oil cream to anal tears for 6 weeks improves healing compared to using stool softeners and applying lidocaine cream.

- **Tooth plaque.** Early research shows that using a toothpaste or mouth rinse containing clove and other ingredients helps to reduce plaque on the teeth.

- **Hangover.** Early research shows that taking an extract from clove flower buds right before drinking alcohol improves hangover symptoms in some people.

- **Excessive sweating (hyperhidrosis).** Early research shows that applying clove oil to the palms for 2 weeks helps reduce excessive sweating of the palms.

- **Mosquito repellent.** Early research shows that applying clove oil or clove oil gel directly to the skin can repel mosquitos for up to 5 hours.

- **Pain.** Early research shows that applying a gel containing ground cloves for 5 minutes before being stuck with a needle can reduce needle stick pain.

- **Prediabetes.** Early research in people with prediabetes shows that taking an extract from clove flower buds seems to lower blood sugar levels before and after a meal. However, this study didn't include a control group, so the true effects of clove on blood sugar are not clear.

- **Itching.** Early research shows that putting a solution containing clove oil gel on the skin can help with severe itching.

- **Toothache.** Clove oil and eugenol, one of the chemicals it contains, have long been applied to the teeth and gums for toothache, but the U.S. Food and Drug Administration (FDA) has reclassified eugenol, downgrading its effectiveness rating. The FDA now believes there is not enough evidence to rate eugenol as effective for toothache pain.

- **A mild form of gum disease (gingivitis).**

- **Bad breath.**
• Cough.
• Diarrhea.
• Dry socket (alveolar osteitis).
• Gas (flatulence).
• Early orgasm in men (premature ejaculation).
• Indigestion (dyspepsia).
• Nausea and vomiting.
• Swelling (inflammation) and sores inside the mouth (oral mucositis).
• Other conditions.

More evidence is needed to rate the effectiveness of clove for these uses.

How does it work?

Clove oil contains a chemical called eugenol that may help to decrease pain and fight infections, but more research is needed.

Are there safety concerns?

When taken by mouth: Clove is LIKELY SAFE for most people when taken by mouth in amounts commonly found in food. There isn't enough reliable information to know if taking clove in larger medicinal amounts is safe or what the side effects might be.

When applied to the skin: Clove oil or cream containing clove flower is POSSIBLY SAFE when applied directly to the skin. However, application of clove oil in the mouth or on the gums can sometimes cause damage to the gums, tooth pulp, skin, and mucous membranes. Application of clove oil or cream to the skin can sometimes cause burning and irritation of the skin.

When inhaled: Inhaling smoke from clove cigarettes is LIKELY UNSAFE and can cause side effects such as breathing problems and lung disease.
When given by IV: Injecting clove oil into the veins is LIKELY UNSAFE and can cause side effects such as breathing problems and lung disease.

Special precautions & warnings:

Children: In children, clove oil is LIKELY UNSAFE to take by mouth. It can cause severe side effects such as seizures, liver damage, and fluid imbalances.

Pregnancy and breast-feeding: Clove is LIKELY SAFE when taken by mouth in amounts commonly found in food. There isn't enough reliable information to know if clove is safe to use in larger medicinal amounts when pregnant or breast-feeding. Stay on the safe side and stick to food amounts.

Bleeding disorders: Clove oil contains a chemical called eugenol that seems to slow blood clotting. There is a concern that taking clove oil might cause bleeding in people with bleeding disorders.

Diabetes: Clove contains chemicals that might affect blood sugar levels in people with diabetes. Watch for signs of low blood sugar (hypoglycemia) and monitor your blood sugar closely if you have diabetes and take clove.

Surgery: Cloves contain chemicals that might affect blood sugar levels and slow blood clotting. There is a concern that it might interfere with blood sugar control or cause bleeding during or after surgery. Stop using clove at least 2 weeks before a scheduled surgery.

Are there interactions with medications?

Moderate
Be cautious with this combination.

Medications for diabetes (Antidiabetes drugs)
Clove contains chemicals that might lower blood sugar. Diabetes medications are also used to lower blood sugar. Taking clove along with diabetes medications might cause your blood sugar to go too low. Monitor your blood sugar closely. The dose of your diabetes medication might need to be changed.

Some medications used for diabetes include glimepiride (Amaryl), glyburide (DiaBeta, Glynase PresTab, Micronase), pioglitazone (Actos), rosiglitazone (Avandia), chlorpropamide (Diabinese), glipizide (Glucotrol), tolbutamide (Orinase), and others. Some insulins used for
diabetes include Humalog (insulin lispro), Novolog (insulin aspart), Apidra (insulin glulisine), Humulin R (regular human insulin), Lantus, Toujeo (insulin glargine), Levemir (insulin detemir), NPH, and others.

Minor
Be watchful with this combination.

Ibuprofen (Advil, others)
In the laboratory, adding ibuprofen to clove oil before applying to skin, helps the ibuprofen get absorbed through the skin. This has not been shown in humans. However, theoretically this might increase how much ibuprofen gets absorbed, increasing the side effects of ibuprofen.

Medications that slow blood clotting (Anticoagulant / Antiplatelet drugs)
Clove contains eugenol, which might slow blood clotting. Taking clove oil along with medications that also slow clotting might increase the chances of bruising and bleeding.

Some medications that slow blood clotting include aspirin, clopidogrel (Plavix), diclofenac (Voltaren, Cataflam, others), ibuprofen (Advil, Motrin, others), naproxen (Anaprox, Naprosyn, others), dalteparin (Fragmin), enoxaparin (Lovenox), heparin, warfarin (Coumadin), and others.

Are there interactions with herbs and supplements?

Herbs and supplements that might lower blood sugar
Clove contains chemicals that might lower blood sugar. Using clove with other herbs and supplements that have this same effect might increase the risk of blood sugar going too low. Some of these products include devil's claw, fenugreek, guar gum, gymnema, Panax ginseng, Siberian ginseng, and others.

Herbs and supplements that might slow blood clotting
Clove might slow blood clotting. Using it along with other herbs or supplements that also slow blood clotting might increase the risk of bruising and bleeding. Some of these herbs include angelica, danshen, garlic, ginger, ginkgo, red clover, turmeric, willow, and others.

Are there interactions with foods?
There are no known interactions with foods.
What dose is used?

The appropriate dose of clove depends on several factors such as the user's age, health, and several other conditions. At this time there is not enough scientific information to determine an appropriate range of doses for clove. Keep in mind that natural products are not always necessarily safe and dosages can be important. Be sure to follow relevant directions on product labels and consult your pharmacist or physician or other healthcare professional before using.

Other names

Bourgeon Floral de Clou de Girofle, Bouton Floral de Clou de Girofle, Caryophylli Flos, Caryophyllum, Caryophyllus aromaticus, Clavo de Olor, Clous de Girofle, Clove Flower, Clove Flowerbud, Clove Leaf, Clove Oil, Clove Stem, Cloves, Cloves Bud, Ding Xiang, Eugenia aromatica, Eugenia caryophyllata, Eugenia caryophyllus, Feuille de Clou de Girofle, Fleur de Clou de Girofle, Flores Caryophylli, Flores Caryophyllum, Gewurznelken Nagelein, Girofle, Giroflier, Huile de Clou de Girofle, Kretexs, Lavang, Lavanga, Oil of Clove, Syzygium aromaticum, Tige de Clou de Girofle.

Methodology

To learn more about how this article was written, please see the Natural Medicines Comprehensive Database methodology [https://medlineplus.gov/druginfo/natural/methodology.html] .

References


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