



## ANISE

### Also Known As:

Aniseed, Anise Essential Oil, Anisi Fructus, Phytoestrogen, Pinella, Semen Anisi, Shatpushpa, Sweet Cumin, Velaiti Saunf.

CAUTION: See separate listing for Star Anise.

### Scientific Name:

*Pimpinella anisum*.

Family: Apiaceae/Umbelliferae.

### People Use This For:

Orally, anise is used for dyspepsia, flatulence, rhinorrhea ("runny nose"), and as an expectorant, diuretic, and appetite stimulant. Anise is also used to increase lactation, induce menstruation, facilitate birth, increase libido, and treat symptoms of "male menopause." Other uses include seizures, nicotine dependence, insomnia, asthma, and constipation.

Topically, anise is used for lice, scabies, and psoriasis treatment.

In foods, anise is used as a flavoring agent, and has a sweet, aromatic taste characteristic of black licorice. It is commonly used in alcohols and liqueurs, such as anisette and ouzo. It is also used in dairy products, gelatins, meats, candies, breath fresheners.

In manufacturing, anise is often used as a fragrance in soap, creams, perfumes, and sachets.

### Safety:

**LIKELY SAFE** ...when used orally in amounts commonly found in food. Anise and anise oil have Generally Recognized as Safe (GRAS) status in the US (4912).

There is insufficient reliable information available about the safety of using anise in medicinal amounts.

**CHILDREN: LIKELY SAFE** ...when used orally in amounts commonly found in food. Anise and anise oil have Generally Recognized as Safe (GRAS) status in the US (4912).

**POSSIBLY SAFE** ...when used topically. Anise has been used with apparent safety with 3 applications to the hair at 5-day intervals (13483). There is insufficient reliable information available about the safety of anise when taken orally by children in medicinal amounts.

**PREGNANCY AND LACTATION: LIKELY SAFE** ...when used orally in amounts commonly found in food. Anise and anise oil have Generally Recognized as Safe (GRAS) status in the US (4912). There is insufficient reliable information available about the safety of anise when taken orally in medicinal amounts during pregnancy or breast-feeding.

## Effectiveness:

**INSUFFICIENT RELIABLE EVIDENCE to RATE**

**Lice.** A topical spray containing anise oil, coconut oil, and ylang ylang oil appears to be effective for head lice. Preliminary clinical research suggests that this anise combination is 92% effective for treatment of head lice in children and seems to be comparable in effectiveness to a spray containing permethrin, malathion, piperonyl butoxide, and isododecane (13483). More evidence is needed to rate anise for this use.

## Mechanism of Action:

The applicable parts of anise are the seed (fruit), oil, and less frequently, the leaf and root. Anise contains eugenol, anethole, methylchavicol, anisaldehyde, estragole, anisketone, linalool, coumarins, scopoletin, umbelliferone, estrols, and beta-farnesene. Anethole is primarily responsible for the licorice-like taste and odor of anise (13485, 13486, 13489).

Preliminary research suggests anise might have analgesic activity (13487).

Anise oil appears to have anticonvulsant effects (13490). Preliminary research suggests that anise oil has gamma-aminobutyric acid (GABA) agonist effects (13405). The essential oil, and aqueous and ethanolic extracts appear to have bronchodilatory effects, possibly by an anticholinergic mechanism (13488, 13489).

Preliminary research suggests that eugenol and estragole have anesthetic, hypothermic, muscle relaxant, and anticonvulsant activities. Anethole appears to have muscle relaxant effects (13485).

Preliminary research suggests that anise might be useful to prevent dehydration. It seems to increase the activity of sodium-potassium ATPase increase absorption of glucose. It also seems to have an antidiuretic effect by stimulating the sodium-potassium pump in the kidney. However, it doesn't seem to affect colonic sodium-potassium ATPase (13491).

Aqueous extracts of anise might have antiestrogen effects, according to preliminary research. It also seems to stimulate osteoblast activity (12728). Anethole and other anise oil constituents might have estrogenic effects (13506).

Anise oil also appears to have insecticidal effects (13488, 3492).

## Adverse Reactions:

Topically, anise in combination with other herbs can cause localized pruritus (13483). In allergic patients, inhaled or ingested anise can cause rhinoconjunctivitis, occupational asthma, and anaphylaxis (13484).

## Interactions with Herbs & Supplements:

None known.

## Interactions with Drugs:

### CONTRACEPTIVE DRUGS

Interaction Rating = **Moderate** Be cautious with this combination  
Severity = High • Occurrence = Possible • Level of Evidence = D

Preliminary research suggests that anise might have antiestrogen effects. Theoretically, concomitant use of large amounts of anise might interfere with contraceptive drugs through competition for estrogen receptors (12728).

### ESTROGENS

Interaction Rating = **Moderate** Be cautious with this combination  
Severity = Moderate • Occurrence = Possible • Level of Evidence = D

Theoretically, concomitant use of large amounts of anise might interfere with hormone replacement therapy through competition for estrogen receptors (12728).

**TAMOXIFEN (Nolvadex)**

Interaction Rating = **Moderate** Be cautious with this combination  
Severity = High • Occurrence = Possible • Level of Evidence = D

Theoretically, large doses of anise might interfere with tamoxifen because of its potential estrogenic effects (13506).

**Interactions with Foods:**

None known.

**Interactions with Lab Tests:**

None known.

**Interactions with Diseases or Conditions:**

**HORMONE SENSITIVE CANCERS/CONDITIONS:** Because anise might have estrogenic effects (13506), women with hormone sensitive conditions should avoid using it. Some of these conditions include breast cancer, uterine cancer, ovarian cancer, endometriosis, and uterine fibroids.

**Dosage/Administration:**

No typical dose. However, traditionally 0.5-1 grams of the dried fruit or 0.05-0.2 mL of the essential oil, three times per day has been used (4). The tea is prepared by steeping 1-2 teaspoons of the crushed seed for 10-15 minutes and then straining (4). As an expectorant, one cup of tea is commonly taken in the morning and/or at night. As an antifatulent, one tablespoon of the tea is usually taken several times a day.

**Editor's Comments:**

None.

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