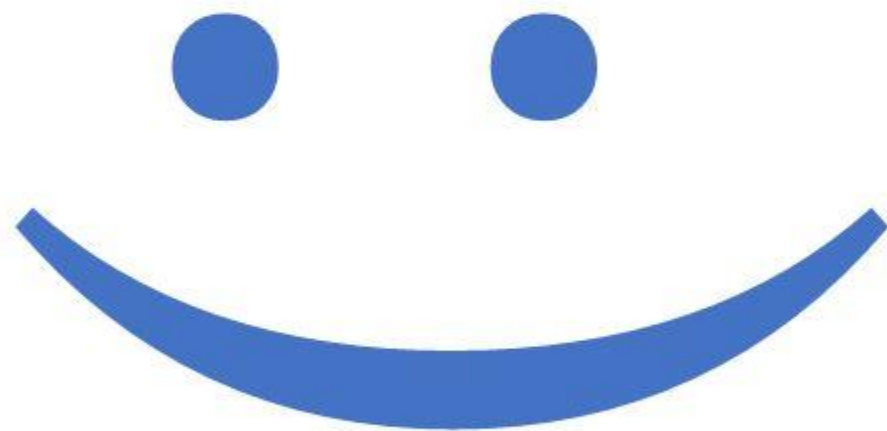


*In the name of God*



# Herbal Medicine: Risks & Considerations



# Titles:

Anise

Artichoke

Barberry

Bitter Apple

Cardamom

Chaste Tree

Clove

Colchicum

Cumin

Digitalis

Dill

Echinacea

Eucalyptus

Evening primrose

Fennel

Fenugreek

Feverfew

Flax

Frankincense

Fumitory

German chamomile

Ginger

Golden Shower Tree

Horse Chestnut

Hyssop

Onion

Peppermint

Psyllium

Senna

Soybean

Tamarind

Thymus



# Anise

*Pimpinella anisum* L.

## Medicinal parts:

The essential oil from the ripe fruit & the dried fruit

## Medicinal usage approved by Commission E:

- Common cold
- Cough/bronchitis
- Fevers and colds
- Inflammation of the mouth and pharynx
- Dyspeptic complaints
- Loss of appetite



## Unproven Uses:

In folk medicine, Anise is used internally for

- ✓ Whooping cough
- ✓ Flatulence
- ✓ Colic-like pain
- ✓ Menstruation disturbances
- ✓ Liver disease
- ✓ Tuberculosis



## **Contraindications:**

Patients allergic to anise and anethole

## **Precaution and adverse reactions:**

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages. Sensitization has been observed very rarely.

Daily Dosage: Internal average daily dose is 3 g drug (depending on the preparation).



## Drug Interactions:

- Anticoagulants: WARFARIN , HEPARIN, ...
- Antiplatelets: ASPIRIN, Dipyridamole,...

**▲ Risk of Bleeding**

# Artichoke

## *Cynara scolymus* L.

**Medicinal parts:** The dried whole or cut basal leaves and the dried or fresh herb from artichoke

**Approved by Commission E:**

### ARTICHOKE LEAF

- Liver and gallbladder complaints
- Loss of appetite

### ARTICHOKE LEAF AND ROOT

Unproven Uses: Artichoke is used for dyspeptic problems and also for prophylactic treatment against the return of gallstones.





# PRECAUTIONS AND ADVERSE REACTIONS:

## ARTICHOKE LEAF AND ROOT

Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded.

Daily Dosage: The average daily dose is 6 gm of drug; single dose is 500 mg of dry extract.

- Medium potential for sensitization through skin contact.
- Allergic reactions occur in particular when there is frequent on-the-job contact with artichokes.
- Cross-reactions with other composites (including chrysanthemes, arnica Pyrethrum).



## Contraindications:

### ARTICHOKE LEAF AND ROOT

- ✓ Bile duct blockage
- ✓ Colic can occur where the patient suffers from gallstones

# Barberry

## *Berberis vulgaris* L.

### Medicinal parts:

The fruit and the root bark

### Unproven uses:

#### BARBERRY FRUIT

- ✓ Decoction or alcoholic extract for lung, spleen and liver diseases.
- ✓ Jam or wine made from the fresh berries can relieve constipation and stimulate the appetite.
- ✓ Heartburn and stomach cramps.
- ✓ Susceptibility to infection, feverish colds, and diseases of the urinary tract.
- ✓ Masking flavor



## Unproven Uses:

### BARBERRY ROOT BARK

In folk medicine, the bark is used for

- ✓ Liver malfunctions
- ✓ Gallbladder disease
- ✓ Jaundice
- ✓ Splenopathy
- ✓ Indigestion
- ✓ Diarrhea
- ✓ Opium or morphine withdrawal





## **Overdosage:**

### **BARBERRY ROOT BARK**

Dosages over 4 mg will bring about light stupor, nosebleeds, vomiting, diarrhea and kidney irritation. The treatment for poisonings is to be carried out symptomatically.

## **Precaution and adverse reactions:**

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

Daily Dosage: The dosage of the infusion is 2 g in 250 ml water, to be sipped. The tincture dosage is 20 to 40 drops daily.

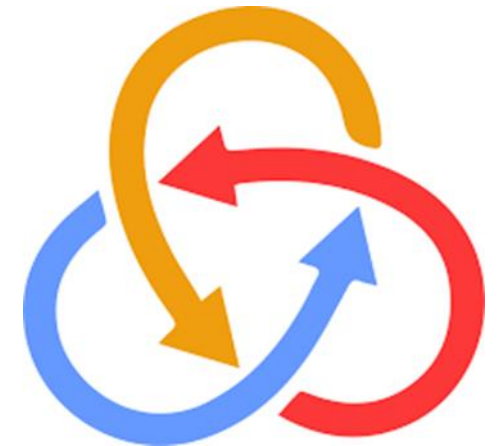
## Contraindications:

- Kernicterus

## Drug Interactions:

- Anticoagulants: WARFARIN , HEPARIN, ...

**▲ Risk of Bleeding**



# Bitter Apple

*Citrullus colocynthis* (L.) Schrad.

## Medicinal parts:

The dried pulp

## Unproven uses:

Preparations of Bitter Apple are used

- ✓ As a drastic purgative in fixed combinations in the treatment of acute and chronic constipation with various causes.
- ✓ It is also used in pregnancy and in the treatment of liver and gallbladder disorders.



## Precaution and adverse reactions:

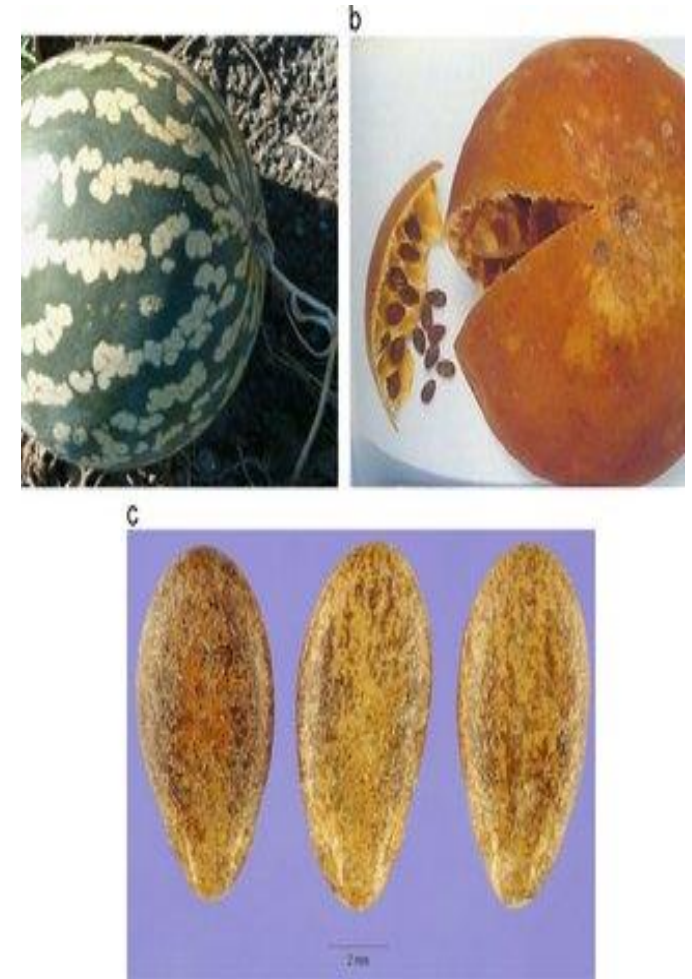
- ✓ Severely poisonous
- ✓ Strongly irritating (and painful) effect on mucous membranes due to its cucurbitacin glycoside content, out of which cucurbitacins are released in watery environments.



## Overdosage:

- ✓ Toxic Dosages 0.6 to 1 g : Vomiting, bloody diarrhea, colic, and kidney irritation and then increased diuresis that progresses to anuria.
- ✓ Lethal dosages starting at 2 g: convulsions, paralysis and, if untreated, to death through circulatory collapse.

The treatment for poisonings should proceed symptomatically following gastric lavage.



# Cardamom

*Elettaria cardamomum* L.

## Medicinal parts:

**Oil extracted from the seeds and fruit plus seeds harvested shortly after ripening.**



## **Medicinal usage approved by Commission E:**

- **Common cold**
- **Cough/bronchitis**
- **Fevers and colds**
- **Inflammation of the mouth and pharynx**
- **Liver and gallbladder complaints**
- **Loss of appetite**
- **Tendency to infection**

## **Precaution and adverse reactions:**

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages. The drug can trigger gallstone colic, due to its motility-enhancing effect.

Daily Dosage: The average daily dosage is 1.5 gm of drug. When using a tincture, the dosage range is 1 to 2 gm.



# Caste Tree

*Vitex agnus-castus* L.

## Medicinal parts:

The the ripe dried fruit and the dried leaves

## Medicinal usage approved by Commission E:

- Premenstrual syndrome (PMS)
- Menopausal complaints



## Precaution and adverse reactions:

General: Occasionally, the administration of the drug leads to the formation of rashes.

## Drug Interactions: (Dopaminergic effect)

- ▼ Dopamine-receptor antagonists
- ▲ Dopamine-Agonist (Levodopa, Pramipexol, ...)



## **Pregnancy:**

**The drug is contraindicated in pregnancy and in nursing mothers.**



# Clove

*Syzygium aromaticum* (L.) Merr. & L.M.Perry

## Medicinal parts:

The oil extracted from the whole or macerated flower buds, the pedicles and leaves, the dried flower buds and the not quite ripe fruit

## Medicinal usage approved by Commission E:

- Dental analgesic
- Inflammation of the mouth and pharynx





## Unproven Uses:

Clove oil is used internally for

- ✓stomach ulcers

And externally for

- ✓Colds

- ✓Headaches

- ✓Local analgesic and dental antiseptic



## Precaution and adverse reactions:

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

Allergic reactions to eugenol occur rarely. In concentrated form, oil of clove may be irritating to mucosa.

Daily Dosage: Aqueous solutions corresponding to 1 to 5% essential oil are used externally for mouthwashes. In dentistry, the undiluted essential oil is used.

# Colchicum

## *Colchicum autumnale* L.

### Medicinal parts:

The fresh flowers and the dried ripe seeds, collected in early summer and then sliced, as well as the tubers (fresh and dried) are the medicinal parts of the plant.

### Medicinal usage approved by Commission E:

- Gout
- Mediterranean fever



## Unproven Uses:

Due to the plant's toxicity, internal application is seldom used with the exception of acute attacks of gout and familial Mediterranean fever.  
Efficacy for these uses appears plausible.



## Precaution and adverse reactions:

General: The drugs are severely poisonous.

Signs of poisoning can occur even with the administration of therapeutic dosages: stomachaches, diarrhea, nausea, vomiting and, less frequently, stomach and intestinal hemorrhages

long-term administration: Kidney and liver damage, hair loss, peripheral nerve inflammation, myopathia and bone marrow damage

## **Pregnancy:**

**Colchicum is not to be used during pregnancy because of possible teratogenic damage.**

**This also has been noted following intake of the drug by the father before conception.**





## Overdosage:

3-6 hours following intake of acutely toxic dosages:

burning of the mouth, difficulty swallowing and thirst appear.

After 12 to 14 hours, the following appear: nausea, severe stomach pains, vomiting, diarrhea, bladder spasms, hematuria, falling blood pressure and spasms, and later, progressive paralysis.

Death follows through **exhaustion, asphyxiation or circulatory collapse.**

The fatal dosage for an adult is 5 g of the seeds, 1 to 1.5 g for a child. The fatal dosage of an intake of colchicine lies between 7 mg and 200 mg.

## Overdosage:

### The treatment for poisonings

Following gastric lavage and the administration of a saline purgative (such as sodium sulfate)

Proceeds symptomatically (diazepam for convulsion, atropine for intestinal spasm)

Intubation and oxygen respiration.

# Cumin

*Cuminum cyminum* L.

## Medicinal parts:

The Cumin oil extracted from the ripe fruit and the ripe, dried fruit.

## Unproven uses:

In folk medicine, Cumin is used as a

- ✓ Carminative for stomach disorders
- ✓ Diarrhea and colic, particularly in veterinary medicine.



## Precaution and adverse reactions:

Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded.

## DOSAGE

Mode of Administration: Cumin is used both internally and externally in ground form and as a pressed oil.

Daily Dosage: The average single dose is 300 to 600 mg of drug (equivalent to 5 - 10 fruits)



# Dill

*Anethum graveolens* L.

## Medicinal parts:

The seed, the fresh or dried leaves and the upper stem.

## INDICATIONS AND USAGE :

### DILL HERB

Unproven Uses: Dill herb is used for prevention and treatment of diseases and disorders of the gastrointestinal tract, kidney and urinary tract, for sleep disorders and for spasms.

### DILL FRUIT Approved by Commission E:

- Dyspeptic Complaints





- **Precaution and adverse reactions:**

#### DILL HERB:

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

#### DILL FRUIT:

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.  
Photodermatitis is possible after contact with the juice of the freshly harvested plant.





# Echinacea

## *Echinaceae species*

### Medicinal parts:

The medicinal parts are, depending on varieties, the roots, leaves or the whole plant in various stages of development.



## INDICATIONS AND USAGE

### ECHINACEA PURPUREA HERB

Approved by Commission E:

- Common cold
- Cough/bronchitis
- Fevers and colds
- Infections of the urinary tract
- Inflammation of the mouth and pharynx
- Tendency to infection
- Wounds and burns



## **ECHINACEA PURPUREA ROOT Unproven Uses:**

- **Acute and chronic respiratory tract infections (of viral and bacterial origin)**
- **Isusceptibility to infection due to temporarily lowered resistance**
- **Treatment of leukopenia following radio and cytostatic therapy and in support of anti-infectious chemotherapy**

## ECHINACEA PALLIDA ROOT Approved by Commission E:

- Fevers and colds

## ECHINACEA ANGUSTIFOLIA HERB AND ROOT Unproven Uses:

In folk medicine, native Americans use the drug externally for burns, swelling of the lymph nodes, and insect bites. The drug is used internally for pain associated with headaches and stomach aches, measles, coughs and gonorrhea. The drug has also been used for rattlesnake bites. Today the drug is used for prophylaxis and treatment of 'flu' infections, sepsis, and mild to moderate cold infections. Externally, the drug is used for treatment of poorly healing wounds and inflammatory conditions such as abscesses and leg ulcers.

- **Precaution and adverse reactions:**

ALL VARIETIES AND FORMS General:

When used parenterally, dose-dependent short-term fever reactions, nausea and vomiting can occur.

Caution should be exercised if the drug is administered parenterally to people with diabetes.

Hypersensitivity reactions with anaphylaxis have been reported



# CONTRAINDICATIONS

ALL VARIETIES AND FORMS Because of a possible activation of autoimmune aggressions and other overreactive immune responses, the drug should not be administered in the presence of **multiple sclerosis, leukosis, collagen disease, AIDS or tuberculosis.** Parenteral administration should not be used in patients with tendencies to allergies, especially allergies to members of the composite family (Asteraceae).

Echinacea should not be used during pregnancy.







## Drug Interactions:

The immune-stimulating effect of echinacea may interfere with drugs that have immunosuppressant effects. Interaction may occur when using cyclosporine or other anti-rejection drugs.

Echinacea may also interfere with the cancer chemotherapeutic effect of corticosteroids.

# Eucalyptus

## *Eucalyptus globulus* Labill.

### Medicinal parts:

The oil extracted from the fresh leaves and branch tips as well as the dried leaves



## **EUCALYPTUS OIL Approved by Commission E:**

- Cough/bronchitis
- Rheumatism

Eucalyptus oil is used internally and externally for catarrh of the respiratory tract and externally for rheumatic complaints.

**Unproven Uses:** In folk medicine, the oil is used for asthma, coughs, diseases of the frontal sinuses, fever, flu, gastric complaints, hoarseness, incipient scarlet fever and measles, worm infestation and as an intestinal antiseptic.

## **EUCALYPTUS LEAF Approved by Commission E:**

- Cough/bronchitis

Eucalyptus leaf is used internally as a catarrh of the respiratory tract

- **Precaution and adverse reactions:**

## EUCALYPTUS OIL

General: The administration of the drug leads in rare cases to nausea, vomiting and diarrhea. It should not be taken internally with inflammation of the gastrointestinal area and the biliary ducts or with severe illnesses of the liver.

Pediatric Use: Infants and small children should not have preparations containing the oil applied to their faces as this practice can lead to glottal or bronchial spasms, asthma-like attacks or even death by asphyxiation.



- **Precaution and adverse reactions:**

## EUCALYPTUS LEAF



General: The administration of the drug leads in rare cases to nausea, vomiting and diarrhea. It should not be taken internally with inflammation of the gastrointestinal area and the biliary ducts or with severe illnesses of the liver. Poisonings occur with the volatile oil but are not likely with administration of the leaf drug.

Pediatric Use: Infants and small children should not have preparations containing the oil applied to their faces as this practice can lead to glottal or bronchial spasms, asthma-like attacks or even death by asphyxiation.

- **Overdosage:**

## EUCALYPTUS OIL

Overdoses can lead to life-threatening poisonings. Severe poisonings are possible for children after a few drops; poisonings have been known in adults with 4 to 5 ml. Symptoms include drop in blood pressure, circulatory disorders, collapse and asphyxiation. Because of the danger of aspiration, vomiting should not be induced. Following the administration of activated charcoal, therapy consists of diazepam for spasms, atropine for colic, electrolyte replenishment and sodium bicarbonate infusions for any acidosis that may arise. Intubation and oxygen respiration may also be necessary.





## Drug Interactions:

Although no published drug interactions were found, a number of animal studies indicate possible concern that the essential oil may induce liver enzymes involved in drug metabolism. Therefore, the effects of other drugs may be decreased following concomitant administration.WHO2

# Evening Primrose

## *Oenothera biennis* L.

### Medicinal parts:

The fatty oil extracted from the ripe seeds and the fresh plant gathered at the beginning of the flowering season

### Unproven Uses:

Evening Primrose oil is used for neurodermatitis, premenstrual syndrome and as a dietary aid. The drug is also used to treat hyperactivity in children, high cholesterol levels, menopausal hot flashes and mastalgia.

Capsules containing 500 mg of Evening Primrose oil have been approved for use in Germany, in the treatment of and to relieve the symptoms of atopic eczema.



- **Precaution and adverse reactions:**

There are case reports of seizures in schizophrenic patients that were being treated with Evening Primrose oil along with phenothiazine medications. Practitioners should be aware that Evening Primrose oil has a potential to lower the seizure threshold in patients with seizure disorders or those being treated with drugs that lower the seizure threshold.



# Fennel

## *Foeniculum vulgare* L.

### Medicinal parts:

The Fennel oil extracted from the ripe fruit and the dried ripe fruit and Fennel seeds of *Foeniculum vulgare*

### Approved by Commission E:

### FENNEL OIL

- Cough
- Bronchitis
- Dyspeptic complaints .





- **Precaution and adverse reactions:**

General: Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded. Allergic reactions following intake of Fennel have been only very rarely observed. Cross Sensitivity among patients with celery allergy appear to be possible.



## Pregnancy:

Preparations, excluding the drug itself and tea infusions are not to be administered during pregnancy.

## Pediatric Use:

Preparations, excluding the drug itself and tea infusions are not to be administered to small children.





# Fenugreek

*Trigonella foenum-graecum* L.

## Medicinal parts:

The ripe, dried seeds

## Approved by Commission E:

- Loss of appetite
- Inflammation of the skin



- **Precaution and adverse reactions:**

General: Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded. Sensitization is possible through repeated external administration of the drug.

Drug Interactions: Fenugreek has hypoglycemic effect. There is a potential for the herb to interact with hypoglycemic drugs that are used to treat diabetes resulting in an exaggerated hypoglycemic effect.



# CONTRAINDICATIONS:

The drug should not be used during pregnancy.





## Drug Interactions:

Fenugreek has hypoglycemic effect. There is a potential for the herb to interact with hypoglycemic drugs that are used to treat diabetes resulting in an exaggerated hypoglycemic effect.

# Feverfew

*Tanacetum parthenium* (L.) Sch.Bip.

**Medicinal parts:**

**The herb of the plant**

**Medicinal usage approved by  
Commission E:**

**Feverfew is used mainly for migraine,  
arthritis, rheumatic diseases and allergies.**





## Precaution and adverse reactions:

General: No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

The drug has a high potential for sensitization via skin contact.

A post-Feverfew syndrome has been reported in about 10% of migraine patients who abruptly stopped taking Feverfew. Rebound headaches, insomnia, muscle stiffness, joint pain, fatigue, nervousness and tension have occurred (Miller, 1998).





## Precaution and adverse reactions:

Gastrointestinal:

Gastrointestinal irritation and abdominal pain or heartburn have been reported.

Glossitis and stomatitis are significant problems if they do occur.

The occurrence of glossitis and stomatitis with encapsulated products has not been shown to be more common than placebo



## Precaution and adverse reactions:

### Skin:

There are reports of allergic dermatitis on exposure to

the leaves and petals of Feverfew.

Eczema was reported in greenhouse workers exposed to various members of the Compositae family, including Feverfew.

### Musculoskeletal:

Feverfew contains sesquiterpenes (parthenolide and cynaropicrin), which have been shown to induce toxic and irreversible inhibition of smooth muscle contractility when there are high concentrations in the tissue



## Drug Interactions:

Feverfew may interact with thrombolytics, anticoagulants and platelet aggregation.

The mechanism of action is believed to be inhibition of arachidonic acid, which is a precursor for prostaglandins that are involved in the clotting mechanism.



## Pregnancy:

The herb is not to be used during pregnancy or during breastfeeding.



# Flax

*Linum usitatissimum* L.

## Medicinal parts:

The stem as a sterile linen thread, the oil extracted from the seeds, the dry ripe seeds, the linseed cakes and the fresh flowering plant.





## Approved by Commission E:

- Constipation
- Inflammation of the skin





## • **Precaution and adverse reactions:**

General: No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages. The use of large quantities of the drug as a laxative with too little fluid intake can lead to an ileus.

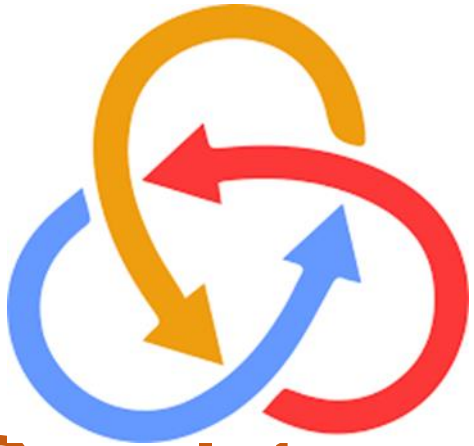
The cyanogenic glycosides present no danger with the intake of therapeutic dosages; the glycosides are broken down only to a limited extent in the body. An elevation in the concentration of cyanide ions and of the detoxification product thiocyanic acid in the blood could not be demonstrated.

It is recommended that if flaxseed is taken for inflammatory bowel conditions, that the flaxseed be preswollen before use (Bisset & Wichtl, 1994).

# CONTRAINDICATIONS:

Flaxseed is contraindicated in the following conditions:

ileus, stricture of the esophagus and in the gastrointestinal area, acute inflammatory illnesses of the intestine, of the esophagus and of the stomach entrance.



## **Drug Interactions:**

The absorption of other drugs taken simultaneously may be delayed.

## **Food Interactions:**

The absorption of Flaxseed oil is facilitated when taken with food.

# Frankincense

## *Boswellia carteri* Birdw.

### Medicinal parts:

The resin gum exuded when incisions are made in the bark of the trunk.

### INDICATIONS AND USAGE

The drug is considered obsolete for medicinal use because its mode of action has not been documented. In vitro, the alpha and beta boswellic acids showed antimicrobial activity and inhibited the complementary system. The mucin, triterpene and essential oil content make application for respiratory conditions and its use for wounds seem plausible.



## PRECAUTIONS AND ADVERSE REACTIONS:

The drug is considered obsolete, even though no health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.



# Fumitory

## *Fumaria officinalis* L.

### Medicinal parts:

The dried herb and the aerial parts of the fresh flowering plant.

### Approved by Commission E:

- Liver and gallbladder complaints

Spastic discomfort in the area of the gallbladder and bile ducts, as well as the gastrointestinal tract.





## PRECAUTIONS AND ADVERSE REACTIONS:

Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded.



# German chamomile

## *Matricaria chamomilla* L.

### Medicinal parts:

Entire flowering herb or only the flowers

### Indication, usage approved by Commission E:

- Cough/bronchitis
- Fevers and colds
- Inflammation of the skin
- Inflammation of the mouth and pharynx
- Tendency to infection
- Wounds and burns



## PRECAUTIONS AND ADVERSE REACTIONS:

Anaphylactic Reactions: Ingestion of chamomile-tea infusion has precipitated an anaphylactic reaction in an 8 year old male with hay fever and bronchial asthma caused by a variety of pollens

Contact Dermatitis: Chamomile, a Compositae plant, is associated with allergic contact dermatitis

Allergic Conjunctivitis: Chamomile tea eye washing to treat ocular reactions has induced allergic conjunctivitis angioedema

# Ginger

*Zingiber officinale* Roscoe

## Medicinal parts:

The root

## Approved by Commission E:

- Loss of appetite
- Travel sickness
- Dyspeptic complaints



## PRECAUTIONS AND ADVERSE REACTIONS:

General: No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

It has been reported that administration of 6 grams of dried powdered Ginger has been shown to increase the exfoliation of gastric surface epithelial cells in human subjects. It is postulated that this action may possibly lead to ulcer formation. Therefore, it- is recommended that dosages on an empty stomach be limited to 6 grams (Desai, 1990).

There have been reports that Ginger can cause hypersensitivity reactions resulting in dermatitis. Large overdoses can cause central nervous system depression and cardiac arrhythmias.



# CONTRAINDICATIONS

A study in 27 pregnant patients with hyperemesis gravidarum (persistent vomiting occurring prior to the 20th week of pregnancy and requiring hospitalization) found that 1 gram per day (250 milligrams 4 times a day) for 4 days caused no adverse effects. One spontaneous abortion occurred; a causal relationship between the abortion and the use of Ginger was not determined. All infants were normal (Fischer-Rasmussen, 1990).

Contraindications: No information available.WHO1







## Drug Interactions:

- Anticoagulants

▲ Risk of Bleeding

# Overdosage:

Cardiac arrhythmia

CNS depression

Daily Dosage:

ANTI-EMESIS

Capsules/Powder — 0.5 to 2 grams (Bisset,1994; Schmid et al, 1994)

CHEMOTHERAPY-INDUCED NAUSEA AND VOMITING

All dosage forms — 1.5 grams (Myer et al, 1995).

DYSPEPSIA

Capsules/Powder — 2 to 4 grams/day

HYPEREMESIS GRAVIDARUM

Capsules/Powder — 1 gram/day given for 4 days (Fischer-Rasmussen et al, 1990).

MOTION SICKNESS

Capsules/Powder — 1 gram to be taken 30 minutes before travel; for continuing symptoms, 0.5 to 1 gram every 4 hours (Muller & Clauson, 1997).

POSTOPERATIVE NAUSEA AND VOMITING

Capsules/Powder — 0.5 to 2 gram daily

RHEUMATOID ARTHRITIS. OSTEOARTHRITIS

Powder — 1 to 2 grams/day (Srivastava & Mustafa, 1992).

# Golden Shower Tree

*Cassia fistula* L.

## Medicinal parts:

The bark, fruit and seeds.

## INDICATIONS AND USAGE

**Indian Medicine:** Golden Shower Tree is used for flatulence, constipation, fever, anorexia, gout, jaundice, itching and skin conditions. Efficacy for constipation is plausible because of the anthranoid content; the other indications have not been proven.



## Precaution and adverse reactions:

No health hazards are known in conjunction with the proper administration of designated therapeutic dosages. The question of the increase in probability of the appearance of carcinomas in the colon following long-term administration of Anthracene drugs has not yet been fully clarified. Recent studies, however, have revealed no connection between the administration of Anthracene drugs and the frequency of carcinomas of the colon.



# Horse Chestnut

*Aesculus hippocastanum* L.

## Medicinal parts:

The dried Horse Chestnut leaves, the oil extracted from the peeled fruit capsules (seeds) and dried chestnut seeds.



## HORSE CHESTNUT LEAF

**Unproven Uses:** Eczema, superficial and deep varicose veins, leg pains, phlebitis, hemorrhoids, pains before and during menstruation. In folk medicine, the leaves are used as a cough remedy, as well as for arthritis and rheumatism.

## HORSE CHESTNUT SEEDS

### Approved by Commission E:

- Venous conditions (chronic venous insufficiency)

Treatment of symptoms found in pathological conditions of the veins of the legs (chronic venous insufficiency), for example pain and a sensation of heaviness in the legs, nocturnal cramps in the calves, pruritis and swelling of the legs.





# Precaution and adverse reactions:

## HORSE CHESTNUT LEAF

General: Health risks or side effects following the proper administration of designated therapeutic dosages are not recorded. One case of liver damage following intramuscular administration of an extract of the drug (origin details of the drug uncertain) is known.

## HORSE CHESTNUT SEEDS

Health risks following the proper administration of designated therapeutic dosages are not recorded. Susceptible patients may nevertheless experience mucous membrane irritations of the gastrointestinal tract (e.g. nausea) following intake of the drug; decrease in kidney function with pre-existing renal insufficiency and acute nephrotoxicity. Hepatotoxicity and urticaria have also been observed. I.V administration of aescin can lead to anaphylactic reactions.

# OVERDOSAGE

## HORSE CHESTNUT SEEDS

The intake of larger quantities of Horse Chestnut seeds (in one case of a child with 5 seeds) can bring about vomiting, diarrhea, severe thirst, reddening of the face, enlargement of pupils, vision and consciousness disorders. Following stomach and intestinal emptying (gastric lavage, sodium sulfate) and the administration of activated charcoal, therapy for poisonings consists of diazepam for spasms, atropine for colic, electrolyte replenishment and sodium bicarbonate infusions for any acidosis that may arise. Intubation and oxygen respiration may also be necessary.



## Drug Interactions:

Horse Chestnut leaf has a coumarin component and may interact with warfarin, salicylates and other drugs with anti-coagulant properties.

# Hyssop

*Hyssopus officinalis* L.

## Medicinal parts:

The the leaves, the flower tips and the essential oil.

**Unproven Uses:** Preparations of Hyssop herb are used for the gentle stimulation of circulation, for intestinal catarrhs, for diseases of the respiratory tract, colds, chest and lung ailments.



## PRECAUTIONS AND ADVERSE REACTIONS:

General: No health hazards are known in conjunction with the proper administration of designated therapeutic dosages. Isolated cases of tonic-clonic spasms have been observed among adults after intake of 10 to 30 drops of the volatile oil over a number of days (2 to 3 drops for children).



# CONTRAINDICATIONS

Not to be used during pregnancy.





# Onion

*Allium cepa* L.

## Medicinal parts:

Fresh or dried bulbs

## Approved by Commission E:

- Arteriosclerosis
- Loss of appetite
- Cough / bronchitis
- Tendency to infection



## PRECAUTIONS AND ADVERSE REACTIONS:

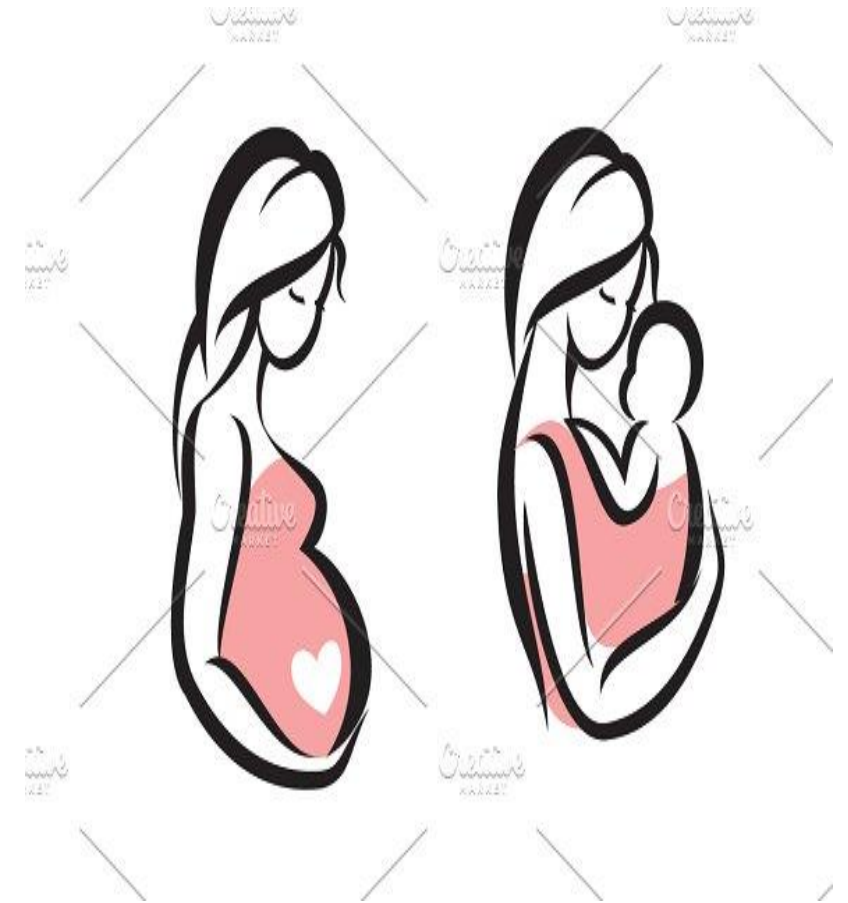
- No adverse reactions during recommended dosage
- Allergic reactions (rhinoconjunctivitis and contact dermatitis)



# CONTRAINDICATIONS

Bulbus Allii Cepae is not mutagenic in vitro.

no precautions have been reported concerning nursing mothers, paediatric use, or teratogenic or non-teratogenic effects on pregnancy



# Peppermint

*Mentha × piperita* L.

## Medicinal parts:

oil extracted from the aerial parts of the flowering plant, the dried leaves and flowering branch tips, the fresh flowering plant and the whole plant.



## Indication, usage approved by Commission E:

- **PEPPERMINT LEAVES**

- Liver and gallbladder complaints 9 Dyspeptic complaints

- **PEPPERMINT OIL**

- Common cold
- Cough/bronchitis
- Inflammation of the mouth and pharynx
- Liver and gallbladder complaints
- Dyspeptic complaints
- Tendency to infection

## PRECAUTIONS AND ADVERSE REACTIONS:

### PEPPERMINT LEAVES

No health hazards are known in conjunction with the proper administration of designated therapeutic dosages. Gallstone carriers could experience colic due to the cholagogic effect.

### PEPPERMINT OIL

General: No health hazards are known in conjunction with the proper administration of designated therapeutic dosages. The intake can lead to gastric complaints in susceptible persons. The volatile oil possesses a weak potential for sensitization due to its menthol content. One is advised against administration of the drug in the presence of a tendency to gastroesophageal reflux.



## Pediatric Use:

*Preparations containing the oil should not be applied to the faces of infants or small children, particularly not in the nasal area (glottal spasm or bronchial spasm up to asthma-like attacks or even possible respiratory failure).*



# Soybean

*Glycine max* L.

## Medicinal parts:

**The soya oil and the soya seed**

**Indication, usage approved by Commission E:**

- **Raised levels of cholesterol**



## **Precaution and adverse reactions:**

No health hazards or major side effects are known in conjunction with the proper administration of designated therapeutic dosages.

Minor side effects include occasional gastrointestinal effects, such as stomach pain, loose stool and diarrhea.

# **Tamarind**

*Tamarindus indica* L.

## **Medicinal parts:**

**The fruit pulp and the dried seeds**

## **Unproven Uses:**

**The drug is used for chronic or acute constipation and liver and gallbladder ailments.**



## **Precaution and adverse reactions:**

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

# Psyllium

## *Plantago ovate* forsk

### Medicinal parts:

Ripe and dried seeds, the epidermis, the adjacent, broken-down layers of the Indian variety and the fresh plant.

### Approved by Commission E:

- Constipation
- Diarrhea
- Raised levels of cholesterol
- Hemorrhoids





## PRECAUTIONS AND ADVERSE REACTIONS:

General: Incorrect administration procedures (with too little fluid) can cause the product to swell and lead to obstruction of the esophagus or of the intestine, particularly with older people.

Patients with exocrine pancreatic insufficiency should avoid use of Psyllium due to inhibitory actions on pancreatic lipase

Allergic Reactions/Anaphylaxis: Allergic reactions ranging from sneezing to chest congestion and wheezing were reported in three nurses after Psyllium use



## Drug Interactions:

***Glycyrrhiza glabra:*** ▲ Hypokalemia

**Antidiabetes Agent:** ▲ Hypoglycemia



# Senna

## *Cassia spices*

### Medicinal parts:

The leaves, fruit and flowers.

### INDICATIONS AND USAGE

- **Constipation**

**Daily Dosage:** The average dose is 20 to 60 mg sennosides.



## PRECAUTIONS AND ADVERSE REACTIONS:

### General:

Spasmodic gastrointestinal complaints can occur as a side effect to the drug's purgative effect or from overdosage.

In rare cases, prolonged use may lead to cardiac arrhythmias, nephropathies, edema and accelerated bone deterioration.

Senna abuse has also resulted in tetany, aspartylglucosamine excretion, and Hypogammaglobulinemia.

## PRECAUTIONS AND ADVERSE REACTIONS:

**Electrolyte Abnormalities:** Long-term use leads to loss of electrolytes, in particular potassium ions :hypokalemia, hyperaldosteronism, albuminuria, hematuria, inhibition of intestinal motility, and muscle weakness may occur. Enhancement of cardioactive glycosides and antiarrythics may also occur with hypokalemia.

**Finger Clubbing:** Reversible upon discontinuation of the drug.

**Cathartic Colon:** Loss of haustral folds

## PRECAUTIONS AND ADVERSE REACTIONS:

**Carcinogenesis:** Carcinogenic activity in the colon following“ long-term administration of anthracene drugs has not yet been fully clarified

**Melanos Coli:** Melanosis coli. Precursors of the melanic substance in melanosis coli may be derived from anthranoid laxatives.

**Occupational Sensitization:** IgE-mediated allergy, asthma, and rhinoconjunctivitis have been reported after occupational exposure to senna products.

**Tissue Damage:** Chronic treatment with anthranoids in high doses reduces vasoactive intestinal polypeptide and somatostatin levels in the colon, which may represent damage to the enteric nervous tissue.



# Drug Interactions:

***Glycyrrhiza glabra***: ▲ Hypokalemia

**Digitalis Glycosides**: With prolonged use or abuse of Senna

▼ potassium ▲ potentiate digitalis toxicity.

**Antiarrhythmics** : With prolonged use or abuse of Senna

▼ potassium ▲ potentiate arrhythmias when given concomitantly with antiarrhythmic medications

**Estrogen** : ▼ The serum level of estrogen concomitantly with Senna due to the effect of intestinal transit on the absorption of estrogens.

**Indomethacin (NSAIDS)** : Indomethacin ▼ the therapeutic effect of the Senna.

**Nifedipine (calcium channel blocker)** : Therapeutic effects induced by rhein anthrone also involve the calcium channel which can be blocked by nifedipine, but not verapamil.



# CONTRAINDICATIONS

**Pregnancy:** The drug should not be used during pregnancy or while nursing.

**Pediatric Use:** Not to be used by children under 2 years of age. Children between the ages of 2-12 years should follow proper dosage recommendations.

**Elderly:** Elderly patients should initially take half of the normal prescribing dose.



# Thymus

## *Thymus vulgaris* L.

### Medicinal parts:

The oil extracted from the fresh, flowering herb: the dried leaves; the striped and dried leaves; and the fresh aerial part of the flowering plant.

### Indication, usage approved by Commission E:

- Cough
- Bronchitis



## PRECAUTIONS AND ADVERSE REACTIONS:

No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages.

The drug possesses a low potential for sensitization.

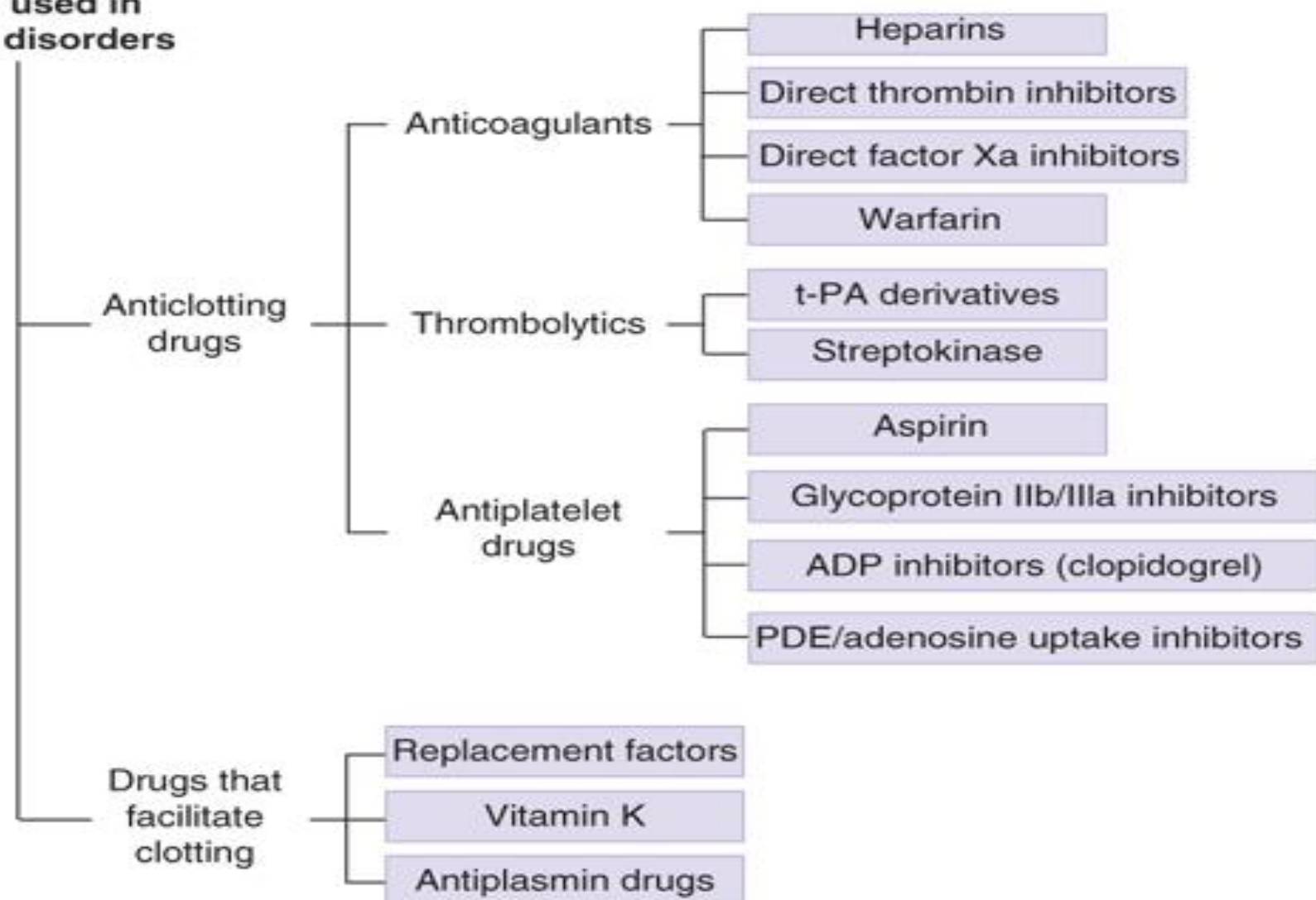


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3. <http://www.theplantlist.org>
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## Drugs used in clotting disorders



Source: A.J. Trevor, B.G. Katzung, M. Kruidering-Hall: Katzung & Trevor's Pharmacology: Examination & Board Review, 11th Ed.  
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