Egyptian Herbal Monograph

Volume 3

Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

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Peppermint oil, Anise oil, Ginger oil, Thyme oil

زيت النعناع /زيت الينسون/ زيت الزنجبيل/زيت الزعتر

1. Names & Synonyms

Peppermint (1)

***Mentha piperita* L.**
Family: Lamiaceae.
Arabic: Ni'na نعناع
English: Peppermint.

Anise (2)

***Pimpinella anisum* L.**
Family: Apiaceae (Umbelliferae).
Syns: *Anisum officinarum* Moench., *A. vulgare* Gaertn., *Apium anisum* L. Crantz., *Carum anisum* L. Baill., *Pimpinella anisum* cultum Alef., *P. aromatica* Bieb., *Selinum anisum* L. E.H.L. Krause., *Sison anisum* Spreng., *Tragium anisum* Link.
Arabic: Yansoon ينسون
English: Anise, Aniseed.

Ginger (3)

***Zingiber officinale* Roscoe.**
Family: Zingiberaceae.
Syns. *Amomum zingiber* L., *Zingiber blancoi* Massk.
Arabic: Janzabeil چنزبيل - Zanjabeel زنچبيل - Zingibil زنجبيل
English: Ginger.

Thyme
***Thymus vulgaris* L.** (4)
Syns.: *Origanum thymus* Kuntze, *Thymus collinus* Salisb.
Family: Lamiaceae (Labiatae).
Arabic: Za'ater زعتر
English name: English Thyme, Garden Thyme.

***Thymus zygis* L.** (5)
Syns.: *Origanum zygis* (L.) Kuntze, *Thymus angustifolius* Salisb.
Family: Lamiaceae (Labiatae).
Arabic: Za'ater زعتر
English name: Spanish Thyme.

2. Parts used for medicinal purpose

Peppermint oil: The fresh overground parts and the dried leaves (1, 6, 7).
Anise oil: Dried ripe fruits (2).
Ginger oil: The dried rhizome (1,8,9,10).
Thyme oil: Dried and fresh herb (11,12).

3. Major chemical constituents

Peppermint oil: Menthol, menthone, menthyl acetate, menthofuran, and 1,8cineole (eucalyptol) (13).

Anise oil: contains mainly trans-anethole, estragole (methylchavicol, isoanethole), *β*-anisaldehyde, *α*-terpenol, *cis*-anethole (2).

Ginger oil: *β*-Bisabolene and zingiberene, zingiberol, zingiberenol, *ar*-curcumene, *β*-sesquiphellandrene, *β*-sesquiphellandrol (*cis* and *trans*), phellandrene, camphene, geraniol, neral, linalool, *d*-nerol) (10, 14).

Thyme oil: the main components are thymol, carvacrol, *p*-cymene**,** *α* and *β*-terpinene, linalool, terpinen-4-ol, borneol, 1,8- cineole**,** *α*-thujene, *α*-pinene, and caryophyllene (12).

4. Medicinal Uses (Indications)

Symptomatic treatment of digestive disorders such as dyspepsia , flatulence , minor spasms of the gastrointestinal tract, abdominal pain, irritable bowel syndrome gastrities and indigestion **.**

5. Herbal preparations correlated to medicinal use

Combination of peppermint oil, anise oil, ginger oil and thyme oil .

Herbal preparations are in pharmaceutical dosage forms. The pharmaceutical form should be described by the pharmacopoeia full standard term.

6. Posology and method of administration correlated to medicinal use

Adults and elderly
Combination of 55 mg of peppermint oil, 75 mg of anise oil, 50 mg of ginger oil and 50 mg of thyme oil, before meal.

Duration of use:

Usually symptoms resolve within 1-2 weeks , if symptoms presists longer than 2 weeks , a doctor or a pharmacist should be consulted.

Method of administration: Oral use.

7. Contraindications (15, 16)

- Hypersensitivity to active substance or to other plants of the same families.
- The product should not be used by person with cholelothiasis.
- Patient with gastro-esophegal reflux (heart burn) because it can worse the patients with liver disease, cholagities, achlorhydria, gallstones or any other biliary conditions (6).

8. Special warnings and precautions for use

- If the symptoms worsen or if dyspnea, fever or purulent sputum occurs during the use of the medicinal product, a doctor or pharmacist should be consulted.
- The product might lower blood sugar, so blood sugar levels should be monitored carefully if diabetic patients use the product (19).
- The use in children under the age of 18 years is not recommended (2,16).
- The gastro-resistant solid dosage forms should be swallowed whole. i.e. not broken, or chewed, because this would release the peppermint oil prematurely, possibly causing local irritation of the mouth and oesophagus. (17).
- Patients with gallstones and any other biliary disorder should be cautious using peppermint oil (18).
- Patients who already suffer from heartburn or hiatal hernia have sometimes an exacerbation of this symptom after taking peppermint oil. Treatment should be discontinued in these patients (17).

9. Interactions with other medicinal products and other forms of interaction (16)

- Iron: The product may increase the action of iron.
- Warfarin: The product may increase the action of warfarin.

Lab Test:

- Increased Prothrombin time (PT/INR).
- Use of food or antacids administered at the same time for the symptomatic relief of digestive disorders could cause early release of the dosage form content.
- Other medicinal products used to decrease stomach acid, such as histamine-2 blockers and proton pump inhibitors may cause premature dissolution of the enteric coating and should be avoided.

- Cytochrome P450 3A4 substrate: The product may decrease drug Metabolized by cytochrome P450 3A4 substrates.
- The product may increase plasma partial prothrombin time in patients taking warfarin concurrently and may increase prothrombin time.

10. Fertility, pregnancy and lactation

- The use during pregnancy and lactation is avoided (10, 21).
- No fertility data available.

11. Effects on ability to drive and use machines

No studies on the effect on the ability to drive and use machines have been performed.

12. Undesirable effects (22)

- Allergic reaction affecting the skin or the respiratory system may occur (21) .
- Minor gastrointestinal complains . particulary stomach upset , erucation , dyspepsia and nausea.
- Urine and stools with an odour of menthol were observed; dysuria and inflammation of the glans of the penis.
- Allergic reactions with headache, bradycardia, muscle tremor, ataxia, anaphylactic shock andlushing , mucous membrane irritation, uticaria, erythematous skin rash.
- Heartburn, perianal burning blurred vision, dry mouth, nausea and vomiting .
- Hypermineralocorticism (16).
- If adverse reactions occur, a doctor or a pharmacist should be consulted.

13. Overdose (22)

- Overdose may cause severe gastro-intestinal symptoms, diarrhea, rectal ulceration, epileptic.

- convulsions, loss of consciousness, apnea and nausea and disturbance in cardiac rhythms, ataxia and other CNS problems, probably due to the presence of menthol.
- In the event of overdose, the stomach should be empited by gastric lavage. Observation should be carried out with symptomatic treatment if necessary.

14. Relevant biological activities

Not required as per Egyptian guidelines for registration of herbal medicines.

15. Additional information

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16. Date of compilation/last revision

20/4/2026

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