# Egyptian Herbal Monograph

# Volume 2 Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)
2025





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# Zingiber officinale Roscoe

چنزبیل

#### 1. Names & Synonyms (1)

#### Zingiber officinale Roscoe.

Family: Zingiberaceae.

Syns. Amomum zingiber L., Zingiber blancoi Massk.

زنجبيل Zingibil - زنچبيل Zanjabeel - چنزبيل Zingibil - چنزبيل

**English**: Ginger.

## 2. Parts used for medicinal purpose

The dried rhizome (1-4).

# 3. Major chemical constituents (4, 5)

- **Oleo-resin:** Gingerols, shogaols, paradols, zingerone, gingerenone-A, and 6-dehydrogingerdione.
- **Essential oil:**  $\beta$ -Bisabolene and zingiberene, zingiberenol, zingiberenol, ar-curcumene,  $\beta$ -sesquiphellandrene,  $\beta$ -sesquiphellandrol (cis and trans), phellandrene, camphene, geraniol, neral, linalool, d-nerol).
- Others: Starch, lipids, proteins and amino acids.

## 4. Medicinal uses (Indications)

- **A.** Prevention of nausea and vomiting in motion sickness (1-3, 6), postoperative nausea and seasickness (1).
- **B.** Symptomatic treatment of mild, spasmodic gastrointestinal complaints including bloating and flatulence (1-4), lack of appetite, indigestion, dyspepsia (1, 3, 4, 6).
- **C.** Expectorant (3, 6) and cough suppressant (antitussive), to help relieve bronchitis (3) as well as colds (1, 3, 6).
- **D.** Adjunctive treatment for inflammatory conditions, such as osteoarthritis and rheumatoid arthritis (1, 4, 7).



## 5. Herbal preparations correlated to medicinal use

- Comminuted herbal substance as herbal tea for oral use as decoction.
   teaspoonful of the comminuted herbal substance in 1 cup of boiling water (7).
- **2.** Powdered herbal substance (1-3).
- **3.** Ethanolic extracts (dry extract, fluid extract, tincture) (3, 7).
- **4.** Aqueous dry extracts (3, 7).

Herbal preparations (2-4) 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

#### **Indication A**

#### **Preparation 1**

**Adults**: 0.7-3g as infusion (3) or decoction (3, 7).

Adolescents and children more than 6 years: 0.7-3g as infusion or decoction (3). Take a single dose 30 minutes before travel or every 4 hours as needed (optional) (3).

#### **Preparation 2**

**Adults:** 1-2 g, 30 minutes to one hour before traveling or upon arising (2, 4, 7) or 0.5 g, 2-4 times daily as needed (1, 4) without exceeding the maximum daily dose of 3g (3).

**Adolescents**: 750 mg, 30 minutes before travelling (2) or 0.5 g, 2-4 times daily as needed (1) without exceeding the maximum daily dose of 3g (3).

**Children between 6 and 12 years of age:** 250 or 500 mg, 30 minutes before travelling (2) or 0.5 g, 2-4 times daily as needed (1) without exceeding the maximum daily dose of 3g (3).

#### **Preparation 3**

**Adults:** 100-200 mg extract, standardized to 20% gingerol and shogaol (7) or extracts equivalent to 0.5g, 2–4 times daily (1) without exceeding the maximum daily dose of 3g of dried rhizome equivalent (3).

**Adolescents and children more than 6 years:** extracts equivalent to 0.5g, 2–4 times daily (1) without exceeding the maximum daily dose of 3g of dried rhizome equivalent (3).

#### **Preparation 4**

**Adults:** 100-200 mg extract, standardized to 20% gingerol and shogaol (7) or extracts equivalent to 0.5 g, 2–4 times daily (1) without exceeding the maximum daily dose of 3g of dried rhizome equivalent (3).

**Adolescents and children more than 6 years:** extracts equivalent to 0.5-0.7 g, 2-4 times daily (1, 3) with maximum daily dose of 3g of dried rhizome equivalent (3).



#### **Indication B**

#### **Preparation 1**

**Adults, adolescents and Children more than 6 years:** 0.7-3 g as infusion or decoction (3).

#### **Preparation 2**

**Adults:** 180 mg, 3 times daily (2) or 0.5 g, 2-4 times daily (1) without exceeding the maximum daily dose of 3g of dried rhizome (3).

Adolescents and children more than 6 years: 0.3–3g of dried rhizome daily (3).

#### **Preparation 3**

**Adults:** extracts equivalent to 0.3-0.5 g, 2-4 times daily (1, 3) without exceeding the maximum daily dose of 3g of dried rhizome equivalent (3).

**Adolescents and children more than 6 years:** extracts equivalent to 0.3- 3g of dried rhizome, daily (3).

#### **Preparation 4**

**Adults:** extracts equivalent to 0.5-0.7g, 2-4 times, daily (1, 3) without exceeding the maximum daily dose of 3g of dried rhizome equivalent (3).

**Adolescents and children more than 6 years:** extracts equivalent to 0.7- 3g of dried rhizome, daily (3).

#### **Indication C (3)**

#### Adults, adolescents, and children more than 6 years:

**Preparation 1**: 0.7g-3g of dried rhizome as infusion or decoction.

**Preparation 2:** powdered herbal substances equivalent to 0.3–3 g of dried rhizome daily.

**Preparation 3:** ethanolic extract equivalent to 0.3-3 g of dried rhizome daily.

**Preparation 4:** aqueous extract equivalent to 0.7-3 g of dried rhizome daily.

#### **Indication D (7)**

#### Preparation 3, 4

**Adults**: 100-200 mg extract, standardized to 20% gingerol and shogaol.

#### **Duration of use (2)**

If the symptoms persist longer than 5 days (for indication A) or longer than 2 weeks (for indication B) during the use of the medicinal product, a doctor or a pharmacist should be consulted.

**Method of administration:** Oral use (2).



#### 7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- Ginger should not be used by persons with cholelithiasis (6, 7).
- It should not be used during childhood fevers or in children with gallstones (7).

## 8. Special warnings and precautions for use

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- The use in children and adolescents under 6 years of age is not recommended (1-3).

# 9. Interactions with other medicinal products and other forms of interaction

Ginger may increase plasma partial prothrombin time in clients taking warfarin concurrently and may increase prothrombin time (6, 7).

### 10. Fertility, pregnancy and lactation

- Ginger use in pregnancy is avoided (2). Ginger is reputed to be an abortifacient and utero-activity has been documented for a related species (4).
- Safety during lactation has not been established. In the absence of sufficient data, the use during lactation is not recommended.
- No fertility data available.

# 11. Effects on ability to drive and use machines (2)

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

#### 12. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Minor gastrointestinal complaints, particularly stomach upset, eructation, dyspepsia and nausea have been reported (2).

#### 13. Overdose

No case of overdose has been reported (2).



# 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

22/06/2022.



# References

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