



Egyptian Herbal Monograph

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## Volume 3

## Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

2026





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شاي أخضر/جارسينيا/جنزبيل/كروميوم **Green tea, Garcinia, Ginger, Chromium**

### 1. Names & Synonyms

#### Green tea

***Camellia sinensis* L. Kuntze**

**Family:** Theaceae.

**Syns.:** *Camellia thea* Link, *Thea sinensis* L., *Thea viridis* L. (1-3).

**Arabic:** Shai akhder شاي اخضر

**English name:** Green tea (2, 4, 5), Chinese tea (3).

#### Garcinia

***Garcinia gummi-gutta* (L.) Roxb.**

**Family:** Clusiaceae /Guttifereae

**Syns.:** *Cambogia gummi-gutta* L., *Cambogia gutta* L., *Garcinia cambogia* Desr., *Mangostana cambogia* Gaertn., (1, 6).

**Arabic:** جارسينيا جارسينيا

**English name:** Malabar tamarind (6, 7).

#### Ginger (8)

***Zingiber officinale* Roscoe.**

**Family:** Zingiberaceae.

**Syns.** *Amomum zingiber* L., *Zingiber blancoi* Massk.

**Arabic:** Janzabeil جنزبيل - Zanzabeel زنجبيل - Zingibil زنجبيل

**English:** Ginger.



## 2. Parts used for medicinal purpose

**Green tea:** dried leaves (4,5)

**Garcinia:** Fruit peel (7) (rind (9), pericarp (10)).

**Ginger:** The dried rhizome (8, 11-13)

## 3. Major chemical constituents

### Green tea

- **Catechins:** (-)-Epigallocatechin-3-gallate (EGCG), (-)-epigallocatechin (EGC), (-)-epicatechin-3-gallate (ECG), and (-)-epicatechin (EC) (14, 15).
- **Phenolic acids:** Gallic acid, chlorogenic acid, theogallin, neochlorogenic acid, caffeoylquinic acid (4, 15, 16).
- **Alkaloids:** Caffeine (17), theobromine, and theophylline (4, 18).
- **Amino acids:** L-Theanine (15).
- **Flavonoids:** Quercetin-3-D-galactoside and kaempferol-3-glucoside (4, 15).

### Garcinia

- **Organic acid:** Hydroxycitric acid (HCA) (19).
- **Benzophenones:** Camboginol (garcinol), cambogin (isogarcinol; xanthochymol), guttiferones - K, I, J, M and N (20).
- **Xanthenes:** Oxy-guttiferones M, K2, I and K, rheediaxanthone-A
- **Others:** Bioflavonoids (volkensiflavone, fukugetin) (19, 21).

### Ginger (13, 22, 23)

- **Oleoresin:** Gingerols, shogaols, paradols, zingerone, gingerenone-A, and 6dehydrogingerdione.
- **Essential oil:**  $\beta$ -Bisabolene and zingiberene, zingiberol, 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)

Control or mangment of body weight in diet programs .

#### 5. Herbal preparations correlated to medicinal use

Combination of green tea powder extract, garcinia powder extract, ginger powder extract and chromium.

**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 above 18 years:**

Combination of 200-400mg of green tea extract , 150-300 mg of garcinia extract and 50-100 mg of ginger extract and 10-20 mcg chromium, before each meal .

**The maintanance dose:**

Combination of 600 mg of green tea extract, 450 mg of garcinia extract and 150 mg of ginger extract and 240mcg chromium.

To be used under medical supervision in chronic disease.

**Method of administration:** Oral use.

It should be taken 30-60 minutes before the meals , with adequate water intake.

#### 7. Contraindications.

- Hypersensitivity to active substance or to other plants in the same families.
- Patients with existing or previous liver pathologies (24).
- Gastric & duodenal ulcers, cardiovascular disorders such as hypertension, arrhythmia and hyperthyroidism, kidney inflammation, insomnia or increased intraocular pressure (4,5).
- Patients with cholelithiasis (5,23).



## 8. Special warnings and precautions for use

- If symptoms worsen during the use of medicinal product a doctor or a pharmacist should be consulted.
- Use in children and adolescents under 18 years of age is not recommended (4, 7).
- Use should be stopped and a doctor or pharmacist should be consulted if symptoms developed as liver trouble such as yellowing of the skin/eyes (jaundice), stomach pain, dark urine, sweating, nausea, unusual tiredness and/or loss of appetite (2).
- Use is not recommended before bedtime as it may cause sleep disturbances (4).
- It should not be used by patients who are risk for haemorrhage (5, 23).

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

- Caffeine containing preparations reduce actions of sedative substances and increase side effects caused by sympathomimetic drugs (4).
- It may affect ability to absorb antiviral, anti-tumor and analgesic medications (5).
- Concurrent use with warfarin: the product may increase prothrombin time (5,23).

### Lab tests (5)

- Blood glucose: it may decrease test values.
- HDL levels: it may increase levels.
- Triglycerides: it may decrease levels.

## 10. Fertility, pregnancy and lactation

- The use during pregnancy or lactation is avoided.
- No fertility data are 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

- General persons who have sensitive stomach: hyperacidity, gastric irritation, abdominal pain, nausea, vomiting, headache, severe diarrhea (5, 23).
- Headache, insomnia, mood change, restlessness, irritability (5).
- If adverse reactions occur, a doctor or a pharmacist should be consulted.

## 13. Overdose

- No case of overdose has been reported.

## 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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