



Egyptian Herbal Monograph

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Volume 3

Herbal Formulations Used in Egypt

Egyptian Drug Authority (EDA)

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Medicinal Plants Used in Egypt

Bilberry, Ginkgo

توت أزرق / چنکو

1. Names & Synonyms

Bilberry (1)

Vaccinium myrtillus L.

Family: Ericaceae

Syns.: *Vitis-idaea myrtillus* (L.) Moench

Arabic: التوت الأزرق Toot azrak.

English: Bilberry, European blueberry, Bogberry (2-4).

Ginkgo biloba (5)

Ginkgo biloba L.

Family: Ginkgoaceae.

Syns. *Pterophyllus salisburyensis* Nelson, *Salisburia adiantifolia* Smith, *S. macrophylla* C. Koch

Arabic: Ginkgo چنکو

English: Ginkgo leaf (6), Fossil tree; Kew tree; Maidenhair tree (2).

2. Parts used for medicinal purpose

Bilberry: Fresh and dried fruits (3,7).

Ginkgo biloba: Dried leaf (2, 5, 8, 9).

3. Major chemical constituents

Bilberry

- **Flavonoids:**



- **Flavan-3-ols:** Procyanidins B1, B2, B3 and B4, and anthocyanins (3-*O*-arabinosides, 3-*O*-glucosides and 3-*O*-galactosides of cyanidin, delphinidin, malvidin, peonidin and petunidin).
- **Flavonols:** Kaempferol, quercetin and myricetin (7), and **Flavonol-*O*-glycosides:** Quercitrin, isoquercitrin, hyperoside and astragalin (10,11).
- **Organic acids:** Malic, citric and quinic acids (11).
- **Phenolic acids:** Hydroxycinnamic and hydroxybenzoic acids (12-14).
- **Tannins:** Gallocatechin (11).
- **Stilbenes:** *Trans*-resveratrol (11).

Ginkgo biloba

- **Flavonoids:** Flavonols (quercetin, kaempferol, isorhamnetin, and their glycosides and coumaroyl esters) (15), proanthocyanidins (yield delphinidin and cyanidin as main building blocks after acid hydrolysis) (16, 17).
- **Terpene lactones:** Bilobalide, ginkgolides A, B, C, J, M (15).
- **Amino acids:** 6-Hydroxykynurenic acid (2-carboxy-4-one-6- hydroxyquinoline), a metabolite of tryptophan (18).
- **Others:** Benzoic acid, ginkgolic acid, 2-hexenal, polyprenols (e.g. di-trans-poly-cis-octadecaprenol) and acidic polysaccharide (19).

4. Medicinal Uses (Indications)

- A) Improvement of (age-associated) cognitive impairment and of quality of life in mild dementia.
- B) Relieve symptoms of discomfort and heaviness of legs related to minor venous circulatory disturbances after serious have been excluded by a medical doctor
- C) Relieve symptoms of cutaneous capillary fragility.



5. Herbal preparations correlated to medicinal use

Combination of bilberry dry extract and Ginkgo dry extract.

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 60–120 mg of bilberry extract and 50–100 mg of Ginkgo extract per day.

Duration of Use

indication A

Treatment should last for at least 8 weeks

If there is no symptomatic improvement after 3 months, or if pathological symptoms intensify, the doctor should check whether continuation of treatment remains justified.

Indication B & C

The recommended dose duration of use is 4 weeks

If the symptoms persist longer than 2 weeks during the use of the medical product, a doctor or a pharmacist should be consulted

Method of administration: Oral use, before meals.

7. Contraindications.

- Hypersensitivity to the active substances and to other plants from the same families.



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 18 years of age has not been established.
- In patients with a pathologically increased bleeding tendency (hemorrhagic diathesis) and concomitant anticoagulant and antiplatelet treatment, the medicinal product should only be used after consultation with a doctor (6, 8, 20).
- The medicinal product should be discontinued as a precaution 3 to 4 days prior to surgery, it may increase susceptibility to bleeding (21).
- In patients with epilepsy, onset of further seizures - promoted by intake of the medicinal product - cannot be excluded (6, 8, 21).
- If there is inflammation of the skin, thrombophlebitis or subcutaneous induration, severe pain, ulcers, sudden swelling of one or both legs, cardiac or renal insufficiency, a doctor should be consulted.

9. Interactions with other medicinal products and other forms of interaction (6-8)

- Concomitant use of Ginkgo biloba containing products and efavirenz is not recommended.
- Anticoagulants, platelet inhibitor, salicylates and other non-steroidal anti-inflammatory drugs because of the increased risk of bleeding.
- Anticonvulsants: concurrent use should be avoided.
- Buspirone, fluoxetine: concurrent use may cause hypomania.
- Cytochrome P450IA2/P4502D6/P4503A4 substrates: concurrent use may affect drugs metabolized by these agents.



- Selective serotonin reuptake inhibitors (SSRIs): concurrent use may reverse the sexual side effects of SSRIs.
- Trazadone: concurrent use may cause coma.
- Anticoagulant/antiplatelet herbs: concurrent use may increase the risk of bleeding
- St. John's wort: concurrent use can lead to hypomania.
- Antidiabetics and hypoglycemic herbs: It may increase hypoglycemia; caution should be taken if used concurrently.
- Iron: It may interfere with iron absorption, concurrent use should be avoided.

Lab Tests:

- Partial thromboplastin time, ASA tolerance test: concurrent use may cause increased bleeding.
- Platelet activity: concurrent use may decrease platelet activity.
- Prothrombin time, blood salicylate: concurrent use may increase prothrombin time and blood salicylate.
- Concurrent use may increase plasma partial prothrombin time in patients taking warfarin concurrently and may increase prothrombin time.
- Blood glucose: It may decrease blood glucose.

10. Fertility, pregnancy and lactation

- The use during pregnancy and lactation should be avoided (2, 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 (8)

- Bleeding of individual organs has been reported (eye, nose, cerebral and



gastrointestinal haemorrhage).

- Headache and dizziness.
- Mild gastrointestinal complaints: diarrhoea, abdominal pain, nausea and vomiting, erucitation
- Hypersensitivity reactions (allergic shock) may occur, skin, subcutaneous tissue disorders and allergic skin reactions (erythema, oedema, itching, rash) may also occur .
- 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

23/04/2026.



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