



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

**Ginkgo , Billberry**

**چنكو / التوت الازرق**

### 1. Names & Synonyms

**Ginkgo biloba (1)**

*Ginkgo biloba* L. Family: Ginkgoaceae.

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

**Arabic:** Ginkgo چنكو

**English:** Ginkgo leaf (2), Fossil tree; Kew tree; Maidenhair tree (3).

**Billberry (4)**

*Vaccinium myrtillus* L.

**Family:** Ericaceae

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

**Arabic:** التوت الأزرق Toot azrak.

**English name:** Bilberry, European blueberry, Bogberry (3, 5, 6).

### 2. Parts used for medicinal purpose

**Ginkgo biloba:** Dried leaf (1, 3, 7, 8).

**Billberry:** Fresh and dried fruits (5,9).

### 3. Major chemical constituents

**Ginkgo biloba**

- **Flavonoids:** Flavonols (quercetin, kaempferol, isorhamnetin, and their glycosides and coumaroyl esters) (10), proanthocyanidins (yield delphinidin and cyanidin as



main building blocks after acid hydrolysis) (11, 12).

- **Terpene lactones:** Bilobalide, ginkgolides A, B, C, J, M (10).
- **Amino acids:** 6-Hydroxykynurenic acid (2-carboxy-4-one-6-hydroxyquinoline), a metabolite of tryptophan (13).
- **Others:** Benzoic acid, ginkgolic acid, 2-hexenal, polyprenols (e.g. di-trans-poly-cis-octadecaprenol) and acidic polysaccharide (14).

### Billberry

- **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 (15,16).
- **Organic acids:** Malic, citric and quinic acids (16).
- **Phenolic acids:** Hydroxycinnamic and hydroxybenzoic acids (17, 18, 19).
- **Tannins:** Gallocatechin (16).
- **Stilbenes:** *Trans*-resveratrol (16).

### 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 Ginkgo dry extract and bilberry 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 50-100mg of Ginkgo extract and 60-120mg of bilberry 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 (2, 7, 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 (2, 7, 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 (2, 7, 9)

- 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 (3, 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 (7)**

- 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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