

Egyptian Herbal Monograph

Volume 3

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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***Vaccinium macrocarpon* Aiton**

توت بري أحمر

1. Names & Synonyms (1)

***Vaccinium macrocarpon* Aiton**

Family: Ericaceae

Syns.: *Oxycoca macrocarpa* (Aiton) Raf., *Oxycoccus macrocarpos* (Aiton) Pursh, *Oxycoccus palustris* var. *macrocarpos* (Aiton) Pers., *Vaccinium propinquum* Salisb.

Arabic name: Toot barry التوت البري – Toot barry ahmar توت بري أحمر.

English name: Cranberry, American cranberry, Large American cranberry, Large cranberry (2-4).

2. Parts used for medicinal purpose

Fresh or dried ripe fruits (2-4).

3. Major chemical constituents

- Flavonoids:

Flavonols: Myricetin and quercitin glycosides (2, 5).

- **Anthocyanins:** 3-*O*-glucosides, galactosides and arabinosides of both cyanidin and peonidin (2, 5).

- **Proanthocyanidins:** Condensed tannins of epicatechin and epigallocatechin (2, 5).

- **Phenolic acids and esters:** *p*-Coumaric, caffeic, ferulic and chlorogenic acids (5, 6), caffeoyl hexoside and caffeoyl dihexoside (5).

- **Organic acids:** Citric, quinic, malic and benzoic acids (2, 5).

- **Carbohydrates:** Glucose, fructose and oligosaccharides (2, 5).

- **Others:** Ursolic acid, vitamins (C, E and K) (5, 7, 8) and minerals (Potassium and Nitrogen) (3, 5, 7, 9).

4. Medicinal Uses (Indications)

Prevention of recurrent urinary tract infections in adults (especially in women) (2-4, 10, 11).

5. Herbal preparations correlated to medicinal use

Dry extract refined from the juice of cranberry fruit.

Herbal preparation is 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

Female adults and elderly: 400-500 mg cranberry extract daily in divided doses equivalent to 90 ml cranberry juice (2).

Duration of use

The recommended duration of use for indication A is at least 4 weeks. If the symptoms persist for more than 2 weeks during the use of the medicinal product, a doctor or a pharmacist should be consulted (10).

Method of administration: Oral use.

7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- The use of cranberry for the treatment of diseases of the urinary tract in pediatric populations is ineffective and is not recommended (2).
- Cranberry should not be used by persons with oliguria and anuria (11).

8. Special warnings and precautions for use (2)

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- Patients with kidney stones or impaired kidney function should use products containing the fruit only after consulting their health care provider (10).
- The use in children and adolescents under 18 years of age is not recommended.
- People with diabetes should be aware of the high content of sugar in the juice and use sugar-free preparations (13).

- Consult the physician prior to treatment to rule out serious conditions such as pyelonephritis.
- A physician or a pharmacist should be consulted prior to use in patients taking blood thinners (10).

9. Interactions with other medicinal products and other forms of interaction (11)

- **Cytochrome P450 2C9 substrates:** Cranberry may inhibit cytochrome P450C9 enzymes.
- **Warfarin:** Cranberry, when given with warfarin, may increase the international normalized ratio and increase the risk for bleeding.
- **Lab Test: Urine pH:** Cranberry decreases urine pH.

10. Fertility, pregnancy and lactation

- The use of cranberry during pregnancy is not recommended without medical supervision.
- 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

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- At high doses (3 L or greater), gastrointestinal discomfort and diarrhea can occur (13).

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 last revision

14/9/2022.

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