

Egyptian Herbal Monograph

Volume 2

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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Astragalus mongholicus Bunge.

الأستراجالاس

1. Names & Synonyms (1, 2)

Astragalus mongholicus Bunge.

Family: Fabaceae (Leguminosae).

Syns.: *A. membranaceus* (Fisch.) Bunge; *A. membranaceus* var. *mongholicus* (Bunge) P. G. Xiao.

Arabic: Astragalus الأستراجالاس

English name: Astragalus root, Membranous milk vetch, Mongolian milk-vetch.

2. Parts used for medicinal purpose

Dried root (3, 4).

3. Major chemical constituents

- **Flavonoids** (5): Kaempferol and quercetin (and their glycosides) (6), astrasieversianin XV (II) (7).
- **Polysaccharides** (5): Gum (6), astragalan, astraglukan AMem-P (3) and mucilage (5).
- **Triterpenoid saponins:** Astragalosides I–X and isoastragalosides I–IV (3, 6).
- **Sterols:** Daucoesterol and β -sitosterol (7).
- **Fatty acids:** Heptenoic, tetradecanoic, pentadecanoic, hexadecanoic, octadecenoic, octadecanoic, octadecadienoic, linoleic, linolenic, palmitic, stearic, eicosanoic, eicosenoic and docosanoic acids (7).
- **Amino acids:** γ -L-glutamyl-Se-methyl-seleno-L-cysteine, Se-methylseleno-L-cysteine (7).
- **Minerals:** Ni and Cr (5).

4. Medicinal Uses (Indications)

- As an adaptogen to help increase energy and resistance to stress (e.g. in case of mental and physical fatigue related to stress) (4).
- Enhance the immune system (3, 8).
- Treatment of common cold and other upper respiratory tract (3, 9).

5. Herbal preparations correlated to medicinal use (4, 8)

1. Comminuted herbal substances as herbal tea for oral use as infusion or decoction.
2. Powdered herbal substances.
3. Dry ethanolic extract.
4. Fluid ethanolic extract (1:1, 1:2 dilution).
5. Tincture.

Herbal preparations (2-5) 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

Preparations 1, 2

Indications A - C

Adults: 9 - 30 g, daily (2-4, 8, 9).

Preparation 3

Indication A

Adult: Equivalent to 2 - 4.8 g of dried root, daily (4).

Indication B

Adults: 100 - 150 mg, 3 times daily (8).

Preparation 4

Indications A and B

Adults: 4.5 - 8.5 ml in divided doses, daily (1:2 dilution) (8, 10).

2 - 4 ml, 3 times daily (1:1 dilution).

Equivalent to 2 - 4.8 g of dried root, daily (4).

Preparation 5

Indication A

Adults: Equivalent to 2 - 4.8 g of dried root, daily (4).

Indications A - C

Adults: 2 - 4 ml, 3 times daily (11).

Method of administration: Oral use (3, 4, 8).

7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- It should not be used by persons with acute infections or in the presence of fever or inflammation (8).
- People with autoimmune diseases and who have had transplant surgery should not use it (2).

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 below 18 years of age is not recommended (4).

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

Drugs

- **Antihypertensives:** Astragalus may decrease or increase the action of antihypertensives; concurrent use should be avoided.
- **Cyclophosphamide:** Astragalus may decrease the effect of cyclophosphamide.
- **Immunosuppressants:** Astragalus may interfere with immunosuppressant therapy.
- **Interferon:** The combination of interferon and Astragalus has been shown to prevent or shorten the duration of upper respiratory infections.
- **Interleukin-2:** Astragalus may increase the effect of drugs such as interleukin- 2 (IL-2). In contrast, other studies have shown that the effects of IL-2 can be decreased when combined with Astragalus.
- Since an extract showed remarkable inhibiting effects on the metabolism of CYP3A4 *in vitro* and *in vivo*, caution should be taken with drugs that also use this metabolic pathway (2).

Lab Test

- Semen specimen analysis: Astragalus may increase sperm motility *in vitro*.
- PT, INR: Astragalus may increase Prothrombin Time (PT) and International Normalized Ratio (INR).

10. Fertility, pregnancy and lactation

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended (4, 8).
- 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.
- Allergic reactions (rare) (8).



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 compilation/last revision

23/08/2022.

References

1	http://www.powo.org .
2	Edwards, S. E., Rocha, I. D. C., Williamson, E. M. and Heinrich, M. (2015). <i>Phytopharmacy: An evidence-based guide to herbal medicinal products</i> . 1 st edition. John Wiley & Sons, Ltd.
3	WHO monographs on selected medicinal plants (1999). <i>Monographs on selected medicinal plants</i> 1 , 50-58.
4	Natural Health Product, <i>Radix astragali</i> L. (2019). Health Canada, http://webprod.hc-sc.gc.ca/nhp/ndp/nhp/monoReq.do?id=36 .
5	Noreen, H., Rukshanda, M., Khattak, Z. R., Minhas, A., Jan, M. and Hassan, W. (2019). Biochemical analysis and mineral composition of methanolic extract of <i>Astragalus gummifer</i> . <i>Biomed. J. Sci. and Tech. Res.</i> , 20 (1), 14736 – 14741.
6	Roman, L. and Roman, D. (2016). Pharmacology and ethnomedicine of the genus <i>Astragalus</i> . <i>International Journal of Pharmacology, Phytochemistry and Ethnomedicine</i> , 3 , 46-53.
7	PDR for Herbal Medicines (2002). Montvale, NJ: Medical Economics Company, 2 nd ed., ISBN 1-56363-361-2.
8	Skidmore-Roth, L. <i>Mosby's Handbook of Herbs and Natural Supplements</i> (2010). 4 th ed., ISBN: 978-0-323-05741-7.
9	American Herbal Pharmacopoeia (1999). <i>Astragalus Root, Astragalus membranaceus and Astragalus membranaceus var. mongholicus</i> . Analytical, Quality Control, and Therapeutic Monograph. ISBN: 1-929425-04-X.
10	Mills, S. and Bone, K. (2013). <i>Principles and Practice of Phytotherapy: Modern Herbal Medicine</i> . Churchill Livingstone, Edinburgh. ISBN: 9780443069925, 0443069921.
11	<i>Astragalus membranaceus</i> Monograph (2003). <i>Alternative Medicine Review: A journal of clinical therapeutic</i> , 8 (1), 72-77.