

Egyptian Herbal Monograph

Volume 2

Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

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Glycine max (L.) Merr.

فول صويا

1. Names & Synonyms (1)

Glycine max (L.) Merr.

Family: Fabaceae.

Syns.: *Phaseolus max* L., *Phaseolus sordidus* Salisb., *Soja max* (L.) Piper.

Arabic: Ful suyah فول صويا (2).

English: Soybean, soy bean, soya bean, soja (3).

2. Parts used for medicinal purpose

Seeds/Beans (4-7).

3. Major chemical constituents

Isoflavones: Daidzin, genistin, glycitin, and their respective aglycones; daidzein, genistein and glycitein; respectively (8, 9).

Oil: Triglycerides of polyunsaturated (linoleic and α -linolenic acids), monounsaturated (oleic acid) and saturated (palmitic acid) fatty acids, as well as phospholipids (lecithins) (8, 10).

Protein: Glycinin, conglycinin, hemagglutinin, trypsin inhibitors, α -amylase and lipooxygenases (8).

Others: Non-starch polysaccharides, vitamins, tocopherols, minerals (K, P, Ca, Mg and Fe), oleanane type saponins (8).

4. Medicinal uses (Indications)

- A. Treatment of the menopausal symptoms (11, 12).
- B. Symptomatic treatment of the premenstrual syndrome (13).
- C. Reduce postmenopausal osteoporosis (13).
- D. Lower serum cholesterol, hepatic cholesterol and triglycerides (13).
- E. Symptomatic relief of dry skin conditions associated with mild recurrent eczema (6).
- F. Relief of temporary fatigue and sensation of weakness (5).

5. Herbal preparations correlated to medicinal use (4,5,13)

1. Soya isoflavones.
2. Soya oil.
3. Soya lecithin.

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

Preparation 1 (13)

Indications A - D

Adults: 50-100 mg daily.

Duration of use: As directed by the a physician.

Method of administration: Oral use.

Preparation 2 (6)

Indication E

Liquid preparations containing 70–90% of soyabean oil as bath additive, 2–3 times per week.

Adolescents, adults and elderly

- Full bath (approximately 100–150 l): 15–45 ml.
- Partial bath (approximately 25–50 l): 5–15 ml.
- Partial bath (approximately 5 l): 1–2.5 ml.
- Shower bath with direct application on skin: 20 ml.
- In particularly dry skin, 2–3 times the above quantities can be used.

Infants and children

- Children's bath (approximately 50 l): 20 ml.
- Children's bath (approximately 25 l): 2.5–10 ml.
- In particularly dry skin, 2–3 times the above quantities can be used.

Duration of bath:

- **Adolescents, adults and elderly:** Maximum 20 minutes.
- **Infants and children:** A few minutes.

If the symptoms persist during the use of the medicinal product, a doctor or a pharmacist should be consulted.

Method of administration

Use as bath additive. Bath temperature: Not exceed 36 °C.

Preparation 3 (5)**Indication F****Adults and elderly**

- Single dose: 750 – 2700 mg, 2-3 times daily.

Adolescents:

- Single dose: 750 mg, 2 times daily.

Duration of use:

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

Method of administration: Oral use.

7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- Full baths are contraindicated in cases of open wounds, large skin injuries, acute skin diseases, high fever, severe infections, severe circulatory disturbances and cardiac insufficiency (6).
- Women with breast cancer especially oestrogen positive tumours and men with prostate cancer should avoid soy isoflavone (13).

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.
- In case of baths, eye contact may cause keratitis and should be avoided. In cases of accidental eye contact, the eye should be rinsed immediately with cold water. If eye irritation remains, a doctor or a pharmacist should be consulted (6).
- The use of soya lecithin in children under 12 years of age is not recommended (5).

9. Interactions with other medicinal products and other forms of interaction (13).

- Soy may interfere with the absorption of estrogens, tamoxifen and thyroid agents; concurrent use should be avoided.
- **Lab Test:** Soy may cause increase in HDL cholesterol and decrease in LDL cholesterol, triglycerides and total cholesterol.

10. Fertility, pregnancy and lactation (5,6)

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.
- 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 (5)

- Allergic reactions including severe anaphylaxis and angioedema.
- Skin reactions like pruritus, dermatitis, exanthema and urticaria (6).
- Gastrointestinal disorders like stomach discomfort, nausea, bloating, diarrhoea and abdominal pain (13).
- If adverse reactions occur, a doctor or a pharmacist should be consulted.

13. Overdose

No case of overdose has been reported (5).

14. Relevant biological activities

Not required as per Egyptian guidelines for registration of herbal medicines.

15. Additional information

16. Date of compilation/last revision

11/6/2023.

References

1	www.powo.science.kew.org
2	http://www.stuartxchange.org/Soya.html
3	Braun, L. and Cohen, M. (2010). Herbs and Natural Supplements - An evidence-based guide. 3 rd edition, Churchill Livingstone. ISBN 978 0 7295 3910 4.
4	http://www.pharmacopeia.cn/v29240/usp29nf24s0_m77720.html
5	European Union Herbal Monograph on <i>Glycine max</i> (L.) Merr., lecithinum (2017). EMA/HMPC/220599/2016. Committee on Herbal Medicinal Products (HMPC).
6	European Union Herbal Monograph on <i>Glycine max</i> (L.) Merr., oleum raffinatum (2017). EMA/HMPC/338914/2016. Committee on Herbal Medicinal Products (HMPC).
7	Natural Health Product, The Biology of <i>Glycin max</i> (L.) Merr. (Soybean) (2021). Health Canada. https://inspection.canada.ca/plant-varieties/plants-with-novel-traits/applicants/directive-94-08/biology-documents/glycine-max-l-merr-/eng/1330975306785/1330975382668
8	Dixit, A. K., Antony, J. I. X., Sharma, N. K. and Tiwari, R. K. (2011). Soybean constituents and their functional benefits. In book: Opportunity, Challenge and Scope of Natural Products in Medicinal Chemistry, pp. 367 - 384. ISBN: 978-81-308-0448-4.
9	Ciabotti, S., Silva, A. C. B. B., Juhasz, A. C. P., Mendonça, C. D., Tavano, O. L., Mandarino, J. M. G. and Gonçalves, C. A. A. (2016). Chemical composition, protein profile, and isoflavones content in soybean genotypes with different seed coat colors. <i>International Food Research Journal</i> , 23 (2), 621-629.
10	Assessment Report on <i>Glycine max</i> (L.) Merr., Oleum raffinatum (2017). EMA/HMPC/338915/2016. Committee on Herbal Medicinal Products (HMPC).
11	Heinrich, M., Barnes, J., Gibbons, S. and Williamson, E. M. (2012). Fundamentals of Pharmacognosy and Phytotherapy. 2 nd edition, Elsevier Churchill Livingstone. ISBN 978-0-7020-3388-9.
12	Duke, J. A. (2002). Handbook of Medicinal Herbs. 2 nd ed. CRC Press. ISBN 978084931284.
13	Skidmore-Roth, L. (2010). Mosby's Handbook of Herbs & Natural Supplements. 4 th ed. ISBN 9780323057417.