



Egyptian Herbal Monograph

Volume 3

Medicinal plants used in Egypt

Egyptian Drug Authority (EDA)

2022



*Citation: Egyptian Herbal Monograph(2022). Harpagophytum procumbens, 290-295.
EDA, Egypt*

Egyptian Herbal Monograph

Medicinal Plants Used in Egypt

***Harpagophytum procumbens* (Burch.) DC. ex. Meisn** مخلب الشيطان

1. Names & Synonyms (1)

***Harpagophytum procumbens* (Burch.) DC. ex. Meisn**

Family: Pedaliaceae

Syns.: *Uncaria procumbens* Burch.

Arabic: Makhlab Elshaytan مخلب الشيطان

English name: Devil's Claw root, grapple plant, wood spider (2-6).

2. Parts used for medicinal purpose

Dried root (tuber) and dried tuberous secondary root (2-8).

3. Major chemical constituents

-Iridoids: Harpagoside, harpagide. (5, 9)

-Phenylpropanoids: Acteoside and isoacteoside, 6-O-acetylacteoside and 2,6-O-diacetylacteoside (5).

-Carbohydrates: Monosaccharides (fructose, galactose, glucose and myo-inositol), raffinose, stachyose and sucrose (5).

-Diterpenes: (+)-8,11,13-Totaratriene-12,13-diol and (+)-8,11,13- abietatrien-12-ol (5).

-Others: Phytosterols, aromatic acids and flavonoids (10-12).

4. Medicinal Uses (Indications)

A. Anti-inflammatory and anti-rheumatic to relief joint pain associated with osteoarthritis (5, 6).

B. Relief of mild digestive disorders such as bloating, flatulence in temporary loss of appetite and dyspeptic complains (7).

5. Herbal preparations correlated to medicinal use (3)

1. Comminuted herbal substance is added to the boiling water as herbal infusion (Infusion time: 8 hours) or boiled with water as decoction.
2. Powdered herbal substance.
3. Liquid extract
 - 3.1. Ethanol 30% V/V.
 - 3.2. Ethanol 25%.
4. Soft extract (DER 2.5-4.0:1), ethanol 70% V/V.
5. Dry extract
 - 5.1. (DER 1.5-2.5:1), water
 - 5.2. (DER 5-10:1), water
 - 5.3. Dry extract, ethanol 30% V/V
 - 5.4. Dry extract, ethanol 40% V/V
 - 5.5. Dry extract, ethanol 60% V/V
 - 5.6. Dry extract, ethanol 80% V/V
 - 5.7. Dry extract, ethanol 90% V/V
6. Tincture (1:5), ethanol 25% (V/V).

Herbal preparations (2-6) 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 and elderly (3)

Preparation 1

Indication A:

Daily dose:

- 4.5 g in 500 ml boiling water as herbal infusion, in 3 divided doses (3, 5).
- 2 – 6 g, daily (2).
- 1.5 – 3 g as a decoction, 3 times daily (2, 5).
- 0.6 - 7.5 g, daily (6, 13).

Indication B

Daily dose: 1.5 g, in 3 divided doses (3, 5, 6) up to 4.5 g, daily (6, 14).



هيئة الدواء المصرية

Preparation 2

Indication A:

Single dose:

- 435 mg, 3 times daily. Daily dose: 1.35 g (3).
- 1–3 g of drug 3 times, daily (5).
- 0.6 - 7.5 g, daily (6).

Indication B: 0.6-1.5 g up to 4.5 g, daily (6).

Preparation 3

Indication A:

Preparation 3.1: 1.03 g extract, as single dose (3).

Preparation 3.2: 1 – 3 ml, 3 times daily (5).

Preparation 4

Indications A and B: 240 mg extract, as single dose (3).

Preparation 5

Preparation 5.1

Indication A:

Single dose: 100 - 1200 mg, 2 - 3 times daily. Daily dose: up to 2.4 g.

Indication B:

Single dose: 100 mg, 2 - 3 times daily. Daily dose: up to 300 mg.

Preparation 5.2

Indication A: Single dose: 200 - 400 mg, 2 to 3 times daily. Daily dose: 600 - 800 mg.

Preparation 5.3

Indication A

Single dose: 400 - 800 mg, 2 - 4 times daily. Daily dose: 800 mg up to 1.6 g.

Indication B

Single dose: 140 - 280 mg, 3 times daily. Daily dose: 420 up to 840 mg.

Preparation 5.4

Indication A

Single dose: 300 - 900 mg, 2 - 3 times daily. Daily dose: 600 mg up to 2.7 g.

Preparation 5.5

Indication A: Single dose: 480 mg, 2 times daily. Daily dose: 960 mg.

Indication B: Single dose: 480 mg, 2 times daily.

Preparation 5.6

Indication B: Single dose: 100 mg, 3 times daily. Daily dose: 300 mg.

Preparation 5.7

Indication A: Single dose: 45 mg, 2 times daily. Daily dose: 90 mg.



هيئة الدواء المصرية

Preparation 6

Indication A:

- Single dose: 0.5 - 1 ml, 3 times daily. Daily dose: up to 3 ml (3, 5).
- 2 – 5 ml, 3 times daily (2, 5, 14).

Duration of use

For relief of joint pain associated with osteoarthritis: Use for a minimum of 2 - 3 months to see beneficial effects (6).

- **Indication A:** If the symptoms persist longer than 4 weeks during the use of the medicinal product, a doctor or a pharmacist should be consulted (3).
- **Indication B:** If the symptoms persist longer than 2 weeks during the use of the medicinal product, a doctor or a pharmacist should be consulted (3).

Method of administration: Oral use (3).

7. Contraindications

- Hypersensitivity to the active substances and to other plants of the same family.
- Patients with gastric or duodenal ulcer and cholecystitis (3, 5, 14).

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.
- Articular pain accompanied by swelling of joints, redness or fever should be examined by a doctor (3).
- For patients with gallstones; a physician should be consulted prior to use devil's claw (3, 7).
- The use in children and adolescents under 18 years of age is not recommended (3).
- Use cautiously in patients with gastric and duodenal ulcers, acute diarrhoea or gallstones, as devil's claw may cause gastric irritation (2).

9. Interactions with other medicinal products and other forms of interaction (14)

- **Antacids, H2-blockers, proton pump inhibitors:** Devil's claw may decrease the action of these agents.
- **Antidiabetics:** Devil's claw may cause an additive effect with antidiabetics.
- **Warfarin:** Devil's claw taken with warfarin may cause risk of bleeding.

-Activated partial thromboplastin time (APTT) and Prothrombin time (PT):
Devil's claw may increase these levels.

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.
- 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.
- Diarrhea, nausea, vomiting, abdominal pain, anorexia (3, 14), headache, vertigo, hypersensitivity reactions (e.g. rash, hives, facial oedema) (3) and hypotension (14).

13. Overdose

No case of overdose has been reported (3).

14. Relevant biological activities

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

15. Additional information

-

16. Date of compilation/ last revision

31/8/2022

1	https://powo.science.kew.org .
2	Braun, L. and Cohen, M. (2010). Herbs and Natural Supplements - An evidence-based guide. 3 rd edition, Churchill Livingstone is an imprint of Elsevier. ISBN: 978 0 7295 3910 4.
3	European Union herbal monograph on <i>Harpagophytum procumbens</i> (Burch.) DC. ex. Meisn. (2016). EMA/HMPC/627058/2015. Committee on Herbal Medicinal Products (HMPC).
4	Edwards, S. E., Rocha, I. D. C., Williamson, E. M. and Heinrich, M. (2015). Phytopharmacy: An evidence-based guide to herbal medicinal products. 1 st edition. John Wiley & Sons, Ltd.
5	Barnes, J., Anderson, L. A. and Phillipson, J. D. (2007). Herbal Medicines, 3 rd edition. Published by the Pharmaceutical Press. ISBN 978 0 85369 623 0.
6	Natural Health Product, <i>Harpagophytum procumbens</i> (Burch.) DC. ex. Meisn. (2022). Health Canada, http://webprod.hc-sc.gc.ca/nhp-id-bdipsn/monoReq.do?id=77&lang=eng .
7	WHO monographs on selected medicinal plants (2002). Monographs on selected medicinal plants, volume 2, 317-324.
8	Blumenthal, M. (1998). The Complete German Commission E Monographs. Austin, Texas: American Botanical Council.
9	Gxaba, N. and Manganyi, M. C. (2022). The fight against infection and pain: Devil's Claw (<i>Harpagophytum procumbens</i>) a rich source of anti-Inflammatory activity: 2011-2022. <i>Molecules</i> , 27(11):3637.
10	Raditic, D. M. and Bartges, J. W. (2014). The Role of Chondroprotectants, Nutraceuticals and Nutrition in Rehabilitation. <i>Canine Rehabilitation and Physical Therapy</i> (2 nd Edition), 254-276.
11	Mncwangi, N. P., Chen, W., Vermaak, I., Viljoen, A. M. and Gericke, N. (2012). Devil's claw—A review of the ethnobotany, phytochemistry and biological activity of <i>Hargagophytum procumbens</i> . <i>J. Ethnopharmacol</i> , 143: 755–771.
12	De Lima, V. B., Ribeiro, M. F., Carpilovsky, C. K., Carpilovsky, P. K. and Krause, L. M. F. (2020). Devil's claw: Action on the central nervous system. <i>Discip. Sci.</i> , 21: 65–72.
13	ESCOP Monographs (2003). <i>Harpagophytum procumbens</i> (Burch.) DC. ex. Meisn. European Scientific Cooperative on Phytotherapy. Edited by Roberta Hutchins and Simon Mills.
14	Skidmore-Roth, L. Mosby's Handbook of Herbs and Natural Supplements (2010). 4 th ed., ISBN: 978-0-323-05741-7.