

Egyptian Herbal Monograph

Volume 3 Medicinal Plants used in Egypt

Egyptian Drug Authority (EDA)

2023





Egyptian Herbal Monograph

Medicinal Plants Used in Egypt

Carum carvi L.

كراوية

1. Names & Synonyms (1)

Carum carvi L.

Family: Apiaceae (Umbelliferae).

Syns. Carum velenovskyi Rohlena.

كراوية Arabic: karawya

English: Caraway.

2. Parts used for medicinal purpose

Dried fruits (2, 3).

3. Major chemical constituents

- **Essential oil:** mainly carvone and limonene (5).
- **Fatty acids**: mainly unsaturated fatty acids as petroselinic, linoleic and oleic acids beside saturated fatty acids as myristic and palmitic acids (5, 6).
- **Flavonoids**: quercetin, kaempferol and their glycosides (quercetin-3-glucuronides, quercetin 3-*O*-caffeoylglucoside and kaempferol 3-glucoside) and isoquercitrin (5, 7).
- Protein (5).

4. Medicinal uses (Indications)

- **A.** For the symptomatic relief of digestive disorders such as bloating, flatulence, and digestive spasms (2, 4).
- **B.** To aid digestion and help stimulate appetite (stomachic) (8).
- **C.** For relief of flatulent colic in infants and children (3).

5. Herbal preparations correlated to medicinal use

1. Herbal substance or comminuted herbal substance as herbal tea for oral use (2)

0.5-2 g of the herbal substance or comminuted herbal substance in 150 ml of boiling water as herbal infusion (2).



- 2. Liquid extract (8).
- 3. Dry extract (8).
- 4. Essential oil (3, 4, 8).

Herbal preparations (2-4) 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 Indications A, B Adults: herbal tea for oral use 1-3 times daily (2).

Preparation 2, 3

Indications A, B

The equivalent extract of the following amount of the dried fruit (g/day) (8):

Adults 18 years and older	0.3-15 g
Adolescents 12-17 years	0.3-15 g
10-11 years	0.3-15g
4-9 years	0.3 -4 g
Children 1-3 years	0.3 -2 g
Infants 6-12 months	0.06 -1 g

Preparation 4

Indications A, B

Oral (3, 9):

Adults18 years and older: 3 – 6 drops (0.15-0.3 ml (4)) in divided doses daily.

Children above 4 years: 3 – 6 drops daily.

Children 1-3 years: 2 – 4 drops daily.

Children up to 1 year: 1-2 drops daily.

Indication C

External (3, 4):

Children and adolescents: an ointment (2% w/w) to be applied once daily in the evening as a thin layer on the abdominal area after bathing.

Adults: 10% in olive oil, rub 10-12 drops onto the stomach (10).

Method of administration: Oral and cutaneous use (2, 3, 8).



7. Contraindications

- Hypersensitivity to active substances and to other plants of the same family.
- The use in patients with liver disease, cholangitis, achlorhydria, gallstones and any other biliary disorders are not recommended (4).
- The product should not be used on broken skin, around the eyes or on mucous membranes (4).
- Caraway should not be used in gastroesophageal reflux disease (11).

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 (2, 4).

9. Interactions with other medicinal products and other forms of interaction

None reported (2, 4).

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 (2, 4, 8, 11).
- No fertility data available (2,4).

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 (2, 4).

12. Undesirable effects

- If adverse reactions occur, a doctor or a pharmacist should be consulted.
- Anorexia, diarrhea, skin redness, irritation and contact dermatitis (11).

13. Overdose

An intake of over dose of the volatile oil for extended periods can lead to kidney and liver damage (11, 12).



14. Relevant biological activities

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

15. Additional Information

16. Date of compilation/last revision

31/05/2022.



References

1	Duke, J. A. (2002). Handbook of Medicinal Herbs. 2 nd ed. CRC Press. ISBN 978084931284.
2	European Union Herbal Monograph on <i>Carum carvi</i> L., fructus (2015).
_	EMA/HMPC/715092/2013. Committee on Herbal Medicinal Products (HMPC).
3	ESCOP Monographs (2019). Carvi aetheroleum, Caraway Oil. European Scientific
	Cooperative on Phytotherapy. Edited by Roberta Hutchins and Simon Mills. ISBN
	978-1-901964-65-3.
4	European Union Herbal Monograph on Carum carvi L., aetheroleum (2015).
	EMA/HMPC/715094/2013 Committee on Herbal Medicinal Products (HMPC).
5	Mahboubi, M. (2019). Caraway as important medicinal plants in management of
	diseases. <i>Natural Products and Bioprospecting</i> , 9 , 1–11.
	https://link.springer.com/content/pdf/10.1007/s13659-018-0190-x.pdf.
6	Laribi, B., Kouki, K., Bettaieb, T., Mougou, A., and Marzouk, B. (2013). Essential oils
	and fatty acids composition of Tunisian, German and Egyptian caraway (Carum
	<i>carvi</i> L.) seed ecotypes: A comparative study. <i>Ind. Crops Prod.</i> , 41 , 312–318.
7	Al-Snafi, A. E. (2015). The chemical constituents and pharmacological effects of
	Carum carvi- A review. Indian Journal of Pharmaceutical Science & Research, 5 (2),
	72-82.
8	Natural Health Product Caraway – <i>Carum carvi</i> (2019). Health Canada,
	http://webprod.hc-sc.gc.ca/nhpid-bdipsn/atReq.do?atid=caraway.carvi⟨= eng.
9	Dorsch, W., Loew, D., Meyer-Buchtela, E. and Schilcher, H. (2002). In:
	Kinderdosierungen von Phytopharmaka. Kooperation Phytopharmaka GbR, Bonn,
	51.
10	Weiss, R and Fintelmann, V. (2000). In: Herbal Medicine (2 nd Edition), Georg
	Thieme Verlag, Stuttgart, New York, 74-75.
11	Skidmore-Roth, L. Mosby's Handbook of Herbs and Natural Supplements (2010). 4 th
4.2	ed., ISBN: 978-0-323-05741-7.
12	PDR for Herbal Medicines (2002). Montvale, NJ: Medical Economics Company, 2 nd
	ed., ISBN 1-56363-361-2.