

NATURAL HEALTH PRODUCT

PSYLLIUM – PLANTAGO AFRA

This monograph is intended to serve as a guide to industry for the preparation of Product Licence Applications (PLAs) and labels for natural health product market authorization. It is not intended to be a comprehensive review of the medicinal ingredient.

Notes

- Text in parentheses is additional optional information which can be included on the PLA and product labels at the applicant's discretion.
- The solidus (/) indicates that the terms and/or statements are synonymous. Either term or statement may be selected by the applicant.

Date October 30, 2018

Proper name(s), Common name(s), Source material(s)

Proper name(s)	Common name(s)	Source material(s)		
		Proper name(s)	Part(s)	Preparation(s)
Plantago afra	 African plantain Black psyllium Psyllium 	Plantago afra	Seed	Dried

Table 1. Proper name(s), Common name(s), Source material(s)

References: Proper name: USDA 2018; Common names: EMEA 2013a; Source material: EMEA 2013a, ESCOP 2003a.

Route of administration

Oral

Dosage form(s)

This monograph excludes foods or food-like dosage forms as indicated in the Compendium of Monographs Guidance Document.

Acceptable dosage forms for the age category listed in this monograph and specified route of administration are indicated in the Compendium of Monographs Guidance Document.



Use(s) or Purpose(s)

- (Used in Herbal Medicine as a) bulk-forming laxative (ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Williamson 2003; FDA 1985).
- (Used in Herbal Medicine to) promote(s) bowel movements (by increasing bulk volume and water content) (Sweetman 2007; WHO 2007; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Bradley 1992; FDA 1985).
- (Used in Herbal Medicine to) provide(s) gentle relief of constipation and/or irregularity (EMEA 2013a; EMEA 2013b; EMEA 2013c; Pray 2006; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000; Gennaro 2000; Bradley 1992; FDA 1985).

The following combined use(s) or purpose(s) is/are also acceptable:

(Used in Herbal Medicine as a) bulk-forming laxative to provide gentle relief of constipation and/or irregularity and promote bowel movements (by increasing bulk volume and water content) (EMEA 2013a; EMEA 2013b; EMEA 2013c; Sweetman 2007; WHO 2007; Pray 2006; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Williamson 2003; Blumenthal et al. 2000; Gennaro 2000; Bradley 1992; FDA 1985).

Dose(s)

Subpopulation(s)

As specified below.

Quantity(ies)

Methods of preparation: Dry, Powder

Subpopulation(s)		Seed (grams)			
		Minimum/day	Maximum/day	Maximum/single dose ³	
Children ¹	6-11 years	1.25 g	25 g	8 g	
Adolescents ²	12 years	1.25 g	25 g	8 g	
	13-17 years	2.5 g	40 g	13 g	
Adults ²	18 years and older	2.5 g	40 g	13 g	

¹EMEA 2013a; EMEA 2013b; ESCOP 2003a; ESCOP 2003b; WHO 1999; FDA 1985

² EMEA 2013a; EMEA 2013b; ESCOP 2003a; ESCOP 2003b; Williamson 2003; Blumenthal et al. 2000a; Blumenthal et al. 200b; WHO 1999; FDA 1985



³ Note: The maximum single dose (13 g) for adults and adolescents 13 years and older is based on the consensus of evidence from several references. The maximum single dose (8 g) for children and adolescents up to 12 years was calculated as a fraction of the maximum adult doses

Direction(s) for use

- For each gram of psyllium, mix with 30 ml of liquid (water, milk, fruit juice or similar aqueous beverage). Stir briskly and drink immediately. Maintain adequate fluid intake (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000a; Blumenthal et al. 2000b; Blumenthal et al. 2000c; WHO 1999).
- ► Take a few hours before or after taking other medications or natural health products (EMEA 2013a; EMEA 2013b; EMEA 2013c; Sweetman 2007; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000b; Blumenthal et al. 2000c; Bradley 1992).
- Effects observed 12-24 hours after first dose, and may take 2-3 days (EMEA 2013a; EMEA 2013b; EMEA 2013c).

For all products (Optional)

Take during the day (not immediately prior to bedtime) (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c).

For products with a dosage range (Optional)

Minimum daily dose may be increased, up to the maximum daily dose, until desired effect is obtained.

Duration(s) of use

No statement required.

Risk information

Caution(s) and warning(s)

- Consult a health care practitioner/health care provider/health care professional/doctor/ physician if symptoms worsen or if laxative effect does not occur within seven days (Pray 2006; Repchinsky 2002).
- Consult a health care practitioner/health care provider/health care professional/doctor/ physician immediately if you experience chest pain, vomiting, or difficulty in swallowing or breathing after taking this product (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c).



 Consult a health care practitioner/health care provider/health care professional/doctor/ physician prior to use if you have symptoms such as abdominal pain, nausea, vomiting or fever (as these could be signs of other serious conditions) (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000a; Blumenthal et al. 2000b; Blumenthal et al. 2000c; Bradley 1992; FDA 1985).

Contraindication(s)

- Do not use this product if you have difficulty swallowing (EMEA 2013a; EMEA 2013b; EMEA 2013c).
- Do not use this product if you have diabetes mellitus in which blood sugar is difficult to regulate (EMEA 2013a; EMEA 2013b; EMEA 2012c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000a; Blumenthal et al. 2000b; Blumenthal et al. 2000c; Bradley 1992).
- Do not use this product if you are experiencing a sudden change in bowel habits that has persisted for more than 2 weeks, undiagnosed rectal bleeding, or failure to defaecate following the use of another laxative product (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c).

Known adverse reaction(s)

- Stop use if hypersensitivity/allergy occurs (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Blumenthal et al. 2000a; Blumenthal et al. 2000b; Blumenthal et al. 2000c; Bradley 1992).
- May cause temporary gas and/or bloating (EMEA 2013a; EMEA 2013b; EMEA 2013c; ESCOP 2003a; ESCOP 2003b; ESCOP 2003c; Bradley 1992).

Non-medicinal ingredients

Must be chosen from the current Natural Health Products Ingredients Database (NHPID) and must meet the limitations outlined in the database.

Storage conditions

No statement required.

Specifications

► The finished product specifications must be established in accordance with the requirements described in the Natural and Non-prescription Health Products Directorate (NNHPD) Quality of Natural Health Products Guide.



▶ The medicinal ingredient must comply with the requirements outlined in the NHPID.

References cited

Blumenthal M, Goldberg A, Brinkmann J, editors. 2000a. Herbal Medicine: Expanded Commission E Monographs. Psyllium Seed, Black. Boston (MA): Integrative Medicine Communications.

Blumenthal M, Goldberg A, Brinkmann J, editors. 2000b. Herbal Medicine: Expanded Commission E Monographs. Psyllium Seed, Blonde. Boston (MA): Integrative Medicine Communications.

Blumenthal M, Goldberg A, Brinkmann J, editors. 2000c. Herbal Medicine: Expanded Commission E Monographs. Psyllium Seed Husk, Blonde. Boston (MA): Integrative Medicine Communications.

Bradley PR, editor. 1992. British Herbal Compendium: A Handbook of Scientific Information on Widely Used Plant Drugs, Volume 1. Bournemouth (UK): British Herbal Medicine Association.

EMEA 2013a. European Medicines Agency. Final Community Herbal Monograph on *Plantago afra* L. et *Plantago indica* L., semen. London (UK): EMEA Committee on Herbal Medicinal Products (HMPC),14 May 2013. [Accessed 2018 August 14]. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Herbal_-___Community_herbal_monograph/2013/07/WC500146770.pdf

EMEA 2013b. European Medicines Agency. Final Community Herbal Monograph on *Plantago ovata* Forssk., seminis tegumentum. London (UK): EMEA Committee on Herbal Medicinal Products (HMPC), 14 May 2013. [Accessed 2018 August 14]. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Herbal_-___Community_herbal_monograph/2013/07/WC500146508.pdf

EMEA 2013c. European Medicines Agency. Final Community Herbal Monograph on *Plantago ovata* Forssk., semen. London (UK): EMEA Committee on Herbal Medicinal Products (HMPC), 14 May 2013. [Accessed 2018 August 14]. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Herbal_-_Community_herbal_monograph/2013/07/WC500146514.pdf

ESCOP 2003a: European Scientific Cooperative on Phytotherapy Scientific Committee. 2003. ESCOP Monographs: The Scientific Foundation for Herbal Medicinal Products, 2nd edition. Psyllii Semen (Psyllium Seed). Exeter (UK): European Scientific Cooperative on Phytotherapy and Thieme.

ESCOP 2003b: European Scientific Cooperative on Phytotherapy Scientific Committee. 2003. ESCOP Monographs: The Scientific Foundation for Herbal Medicinal Products, 2nd edition.



Plantaginis Ovatae Semen (Ispaghula Seed). Exeter (UK): European Scientific Cooperative on Phytotherapy and Thieme.

ESCOP 2003c: European Scientific Cooperative on Phytotherapy Scientific Committee. 2003. ESCOP Monographs: The Scientific Foundation for Herbal Medicinal Products, 2nd edition. Plantaginis Ovatae Testa (Ispaghula Husk / Blonde Psyllium Husk). Exeter (UK): European Scientific Cooperative on Phytotherapy and Thieme.

FDA 1985: Unites States Food and Drug Administration. Laxative Drug Products for OvertheCounter Human Use; Tentative Final Monograph. Proposed Rules sections 334.10 and 334.52. [online]. Federal Register Volume 50, Number 10, Tuesday, January 15, 1985. Rockville (MD): Department of Health and Human Services, U.S. Food and Drug Administration. [Accessed 2018 August 14]. Available from: http://cdn.loc.gov/service/ll/fedreg/fr050/fr050010/fr050010.pdf

Gennaro AR, editor. 2000. Remington: The Science and Practice of Pharmacy, 20th edition. Baltimore (MD): Lippincott Williams & Wilkins.

Pray WS. 2006. Non-Prescription Product Therapeutics, 2nd edition. New York (NY): Lippincott Williams & Wilkins.

Repchinsky C, editor. 2002. Patient Self-Care. Helping Patients Make Therapeutic Choices. Ottawa (ON): Canadian Pharmacists Association.

Sweetman SC, editor. 2007. Martindale: The Complete Drug Reference, 35th edition. London (UK): Pharmaceutical Press.

USDA 2018: United States Department of Agriculture, Agricultural Research Service, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [online database]. 2003. *Plantago afra* L. Beltsville (MD): National Germplasm Resources Laboratory. [Accessed 2018 August 14]. Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl

WHO 2007: World Health Organization (WHO) Monographs on Selected Medicinal Plants: Volume 3. Geneva (CHE): World Health Organization.

WHO 1999: World Health Organization (WHO) Monographs on Selected Medicinal Plants: Volume 1. Geneva (CHE): World Health Organization.

Williamson EM. 2003. Potter's Herbal Cyclopaedia: The Authoritative Reference work on Plants with a Known Medical Use. Saffron Walden (UK): The C.W. Daniel Company Limited.



References reviewed

Ashraf W, Pfeiffer RF, Park F, Lof J, Quigley EM. 1997. Constipation in Parkinson's disease: objective assessment and response to psyllium. Movement Disorders: Official Journal of the Movement Disorder Society 12(6):946-951.

Berardi RR, DeSimone EM, Newton GD, Oszko MA, Popovich NG, Rollins CJ, Shimp LA, Tietze KJ, editors. 2002. Handbook of Nonprescription Drugs: An Interactive Approach to SelfCare, 13th edition. Washington (DC): American Pharmaceutical Association.

BHP 1983: British Herbal Pharmacopoeia. Bournemouth (UK): British Herbal Medicine Association.

BP 2008: British Pharmacopoeia Commission. 2007. British Pharmacopoeia. London (UK): The Stationary Office.

Cheskin LJ, Kamal N, Crowell MD, Schuster MM, Whitehead WE. 1995. Mechanisms of constipation in older persons and effects of fiber compared with placebo. Journal of the American Geriatrics Society 43(6):666-669.

HC 1994. Health Canada. TPD/NHPD Category IV Labelling Standard, Bulk Forming Laxatives [online]. Ottawa (ON): Therapeutic Products Directorate, Health Canada. [Accessed 2009 January 27]. Available from: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applicdemande/guide-ld/label-etiquet-pharm/laxb_laxm-eng.php

HC 1994. Health Canada. TPD/NHPD Category IV Labelling Standard, General Laxatives [online]. Ottawa (ON): Therapeutic Products Directorate, Health Canada. [Accessed 2009 January 27]. Available from: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applicdemande/guide-ld/label-etiquet-pharm/laxat-eng.php

Liel Y, Harman-Boehm I and Shany S. 1996. Evidence for a clinically important adverse effect of fiber-enriched diet on the bioavailability of levothyroxine in adult hypothyroid patients. Journal of Clinical Endocrinology and Metabolism 81(2):857-859.

Marteau P, Flourié B, Cherbut C, Corrèze JL, Pellier P, Seylaz J, Rambaud JC.1994. Digestibility and bulking effect of ispaghula husks in healthy humans. Gut 35(12):1747-1752.

McRorie JW, Daggy BP, Morel JG, Diersing PS, Miner PB, Robinson M. 1998. Psyllium is superior to docusate sodium for treatment of chronic constipation. Alimentary Pharmacology & Therapeutics 12(5):491-497.

Ph. Eur. 2008: European Pharmacopoeia Commission. 2008. European Pharmacopoeia, 6th edition, Volume 1. Strasbourg (FR): Directorate for the Quality of Medicines and HealthCare of the Council of Europe (EDQM).



USP 32: United States Pharmacopeial Convention. 2009. United States Pharmacopeia and the National Formulary (USP 32 - NF 27). Rockville (MD): The United States Pharmacopeial Convention.

Wichtl M, editor. 2004. Herbal Drugs and Phytopharmaceuticals: A Handbook for Practice on a Scientific Basis, 3rd edition. Stuttgart (D): Medpharm GmbH Scientific Publishers.