

NATURAL HEALTH PRODUCT

ELEUTHERO – *ELEUTHEROCOCCUS SENTICOSUS*

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 label 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

December 18, 2018

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

Table 1. 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)
<i>Eleutherococcus senticosus</i>	<ul style="list-style-type: none"> ▶ Ci wu jia ▶ Eleuthero ▶ Siberian ginseng 	<i>Eleutherococcus senticosus</i>	Root	Dried

References: Proper name: USDA 2018; Common names: USDA 2018, McGuffin et al. 2000; Source material: Barnes et al. 2007, Hoffmann 2003.

Route of administration

Oral (Bradley 2006; ESCOP 2003)

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 tonic to help relieve general weakness/fatigue and/or to aid during recovery (Bradley 2006; ESCOP 2003; Blumenthal et al. 2000; Mills and Bone 2000).
- ▶ Used in Herbal Medicine to help improve mental and/or physical performance after periods of mental and/or physical exertion (Bradley 2006; ESCOP 2003; Hoffmann 2003; Mills and Bone 2000).

Dose(s)

Subpopulation(s)

Adults 18 years and older

Quantity(ies)

Methods of preparation: Dry, Powder, Non-Standardised Extracts (Dry extract, Tincture, Fluid extract, Decoction, Infusion)

0.91 - 6.0 grams of dried root, per day (Bradley 2006; ESCOP 2003; Hoffmann 2003; Blumenthal et al. 2000; Mills and Bone 2000).

Direction(s) for use

No statement required.

Duration(s) of use

Consult a health care practitioner/health care provider/health care professional/doctor/physician for use beyond 1 month (ESCOP 2003).

Risk information

Caution(s) and warning(s)

- ▶ Consult a health care practitioner/health care provider/health care professional/doctor/physician if symptoms persist or worsen.
- ▶ Consult a health care practitioner/health care provider/health care professional/doctor/physician if you are pregnant, breastfeeding or have any type of acute infection (Brinker 2010; Barnes et al. 2007; ESCOP 2003; Mills and Bone 2000).



Contraindication(s)

Do not use this product if you have high blood pressure (Brinker 2010; Barnes et al. 2007; Blumenthal et al. 2000; Mills and Bone 2000; McGuffin et al. 1997).

Known adverse reaction(s)

No statement required.

Non-medicinal ingredients

Must be chosen from the current Natural Health Product Ingredient 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

Barnes J, Anderson LA, Philipson JD. Herbal Medicines, 3rd edition. London (UK): The Pharmaceutical Press; 2007.

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

Bradley PR, editor. British Herbal Compendium: A Handbook of Scientific Information on Widely Used Plant Drugs, Volume 2. Bournemouth (UK): British Herbal Medicine Association; 2006.

Brinker F. Herb Contraindications and Drug Interactions, 4th edition. Sandy (OR): Eclectic Medical Publications; 2010.

ESCOP 2003: ESCOP Monographs: The Scientific Foundation for Herbal Medicinal Products, 2nd edition. Exeter (UK): European Scientific Cooperative on Phytotherapy and Thieme; 2003.



Hoffmann D. Medical Herbalism. Rochester (VT): Healing Arts Press; 2003.

McGuffin M, Kartesz JT, Leung AY, Tucker AO, editors. Herbs of Commerce, 2nd edition. Silver Spring (MD): American Herbal Products Association; 2000.

McGuffin M, Hobbs C, Upton R, Goldberg A, editors. American Herbal Products Association's Botanical Safety Handbook. Boca Raton (FL): CRC Press; 1997.

Mills S, Bone K. Principles and Practice of Phytotherapy. Toronto (ON): Churchill Livingstone; 2000.

USDA 2018: United States Department of Agriculture, Agricultural Research Service, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [online database]. Beltsville (MD): National Germplasm Resources Laboratory. [Accessed 2018 September 27]. Available from: http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl.

References reviewed

Asano K, Takahashi T, Miyashita M, Matsuzaka A, Muramatsu S, Kuboyama M, Kugo H, Imai J. Effect of *Eleutherococcus senticosus* Extract on Human Physical Working Capacity. *Planta Medica*. 1986; 52(3): 175-177.

Bohn B, Nebe CT, Birr C. Flow-cytometric studies with *Eleutherococcus senticosus* extract as an immunomodulatory agent. *Arzneimittelforschung*. 1987;37(10):1193-1196.

BHP 1996: British Herbal Pharmacopoeia. Bournemouth (UK): British Herbal Medicine Association; 1996.

Cicero A, Derosa G, Brillante R, Bernardu R, Nascetti S, Gaddi A. Effects of Siberian Ginseng (*Eleutherococcus senticosus* maxim.) on elderly quality of life: A randomized clinical trial. *Archives of Gerontology and Geriatrics*. Supplement. 2004;(9)69-73.

Donovan JL, DeVane CL, Chavin KD, Taylor RM, Markowitz JS. Siberian Ginseng (*Eleutherococcus senticosus* effects on CYP2D6 and CYP3A4 activity in normal volunteers. *Drug Metabolism and Disposition: the biological fate of chemicals*. 2003;31(5)519-522.

Eschbach P, Webster M, Boyd J, McArthur P, Evetovich T. The effect of Siberian Ginseng (*Eleutherococcus Senticosus*) on substrate utilization and performance during prolonged cycling. *International Journal of Sport Nutrition and Exercise Metabolism* 2000;10(4):444-451.

Gaffney B, Hügel H, Rich P. The effects of *Eleutherococcus senticosus* and *Panax ginseng* on steroidal hormone indices of stress and lymphocyte subset numbers in endurance athletes. *Life Sciences*. 2001;70(4):431-442.



Hartz A, Bentler S, Noyes R, Hoehns J, Logemann C, Sinift Y, Butani W, Wang W, Brake K, Ernst M, Kautzman H. Randomized controlled trial of Siberian Ginseng for chronic fatigue. *Psychological Medicine*. 2004;34(1):51-61.

Kaloeva ZD. Effect of the glycosides of *Eleutherococcus senticosus* on the hemodynamic indices of children with hypotensive states. *Farmakologija Toksikologija* 1986;49(5):73.

Mills E, Dugoua J, Perri D, Koren G. *Herbal Medicines in Pregnancy and Lactation: An Evidence-Based Approach*. London (UK): Taylor and Francis Medical; 2006.

Mills S. *The Dictionary of Modern Herbalism*. Wellingborough (UK): Thorsons Publishers Ltd; 1985.

Szołomicki S, Samochowiec L, Wójcicki J, Drożdżik M. The influence of active components of *Eleutherococcus senticosus* on Cellular Defence and Physical Fitness in Man. *Phytotherapy Research*. 2000;14(1)30-35.

Wu Y, Wang X, Li M, Compbell TC. [Effect of Ciwujia (*Radix Acanthopanax senticosus*) preparation on exercise performance under constant endurance load for the elderly]. *Journal of Hygiene research*. 1999;27(6)421-444. [in Chinese].