

Evidence Package

Withania somnifera (Ashwagandha)

Table of Contents

Table 6a: Executive Summary of Therapeutic Indications	3
Table 6b: Evidence Summary for Scientific Indications	5
INDICATION 1	5
INDICATION 2	23
INDICATION 3	31

Table 6a: Executive Summary of Therapeutic Indications

Indication identifier	System targeted	Therapeutic indication	Required dosage	Specific/ Non-specific
WITHANIA1	General health or body parts	<ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to Maintain/support general health and wellbeing • Traditionally used in Ayurvedic medicine to enhance/promote energy levels • Traditionally used in Ayurvedic medicine to maintain/support general health and wellbeing • Traditionally used in Ayurvedic medicine to aids/assists with recovery from illness/convalescence • Traditionally used in Ayurvedic medicine to relieve weariness/tiredness/fatigue/feeling of weakness • Traditionally used in Ayurvedic medicine to relieve weariness/tiredness/fatigue/feeling of weakness in healthy elderly individuals 	3 – 6 g DHE	Non-specific

WITHANIA2	Nervous system	<ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to decrease/reduce/relieve symptoms of stress • Traditionally used in Ayurvedic medicine to support healthy stress response in the body • Traditionally used in Ayurvedic medicine to Maintain/support healthy sleeping patterns • Traditionally used in Ayurvedic medicine to Maintain/support nervous system function • Traditionally used in Ayurvedic medicine to Maintain/support nervous system health • Traditionally used in Ayurvedic medicine to Support healthy emotional/mood balance • Traditionally used in Ayurvedic medicine to Maintain/support cognitive function/mental function • Traditionally used in Ayurvedic medicine to Maintain/support memory/mental recall • Traditionally used in Ayurvedic medicine to Maintain/support general mental wellbeing 	3 – 6 g DHE	Non-specific
WITHANIA3	Reproductive system	<ul style="list-style-type: none"> • Traditionally used in Western herbal medicine to maintain/support healthy sexual function 	3 – 6 g DHE	Non-specific
WITHANIA4	Traditional Ayurvedic medicine	<ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to rasayan/rejuvenative tonic 	3 – 6 g DHE	Non-specific

Table 6b: Evidence Summary for Scientific Indications

INDICATION 1						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'

<ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to Maintain/support general health and wellbeing • Traditionally used in Ayurvedic medicine to enhance/promote energy levels • Traditionally used in Ayurvedic medicine to maintain/support general 	<p>Health Canada Monographs, Health Canada, 2024</p>	<p><i>Withania somnifera</i> (Ashwagandha) root</p>	<p>Methods of preparation: Dry, Powder, Non-Standardized Extracts (Dry extract, Tincture, Fluid extract, Decoction, Infusion)</p> <p>extract equiv. to dry:</p> <p>2 – 6.5 grams of dried root, per day</p>	<p>NA</p>	<p>Traditionally used in Ayurveda as Rasayana (rejuvenative tonic)</p> <p>Traditionally used in Ayurveda to relieve general debility, especially during convalescence or old age</p> <p>Traditionally used in Ayurveda to help relieve restlessness and/or nervousness (which helps (to) promote sleep)</p> <p>Traditionally used in Ayurveda to balance aggravated Vata (nervine)</p> <p>Traditionally used in Ayurveda for memory enhancement</p> <p>Used in Herbal Medicine as an adaptogen to help increase energy and resistance to stress (e.g. in case of mental and physical fatigue related to stress)</p>	<p>Primary supporting</p>
--	--	---	---	-----------	---	---------------------------

<p>health and wellbeing</p> <ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to aids/assists with recovery from illness/convalescence • Traditionally used in Ayurvedic medicine to relieve weariness/tiredness/fatigue/feeling of weakness • Traditionally used in Ayurvedic medicine to relieve weariness/tiredness/fatigue/feeling of weakness in healthy 	<p>Braun, L., & Cohen, M. (2015). <i>Withania</i>. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1185-1196). Chatswood, NSW: Elsevier Australia.</p>	<p>Withania root and leaves</p>	<p><i>Dried root:</i> 3–6 g/day in capsule or tea form</p>	<p>NA</p>	<p>Withania is often referred to as ‘Indian ginseng’ because it is used in much the same way as <i>Panax ginseng</i> in traditional Chinese medicine, although it is considered less stimulating. In Ayurvedic medicine it is classified as a ‘rasayana’, used to promote physical and mental health and improve vitality and longevity.</p> <p>Clinical Use</p> <p><i>W. somnifera</i> has not undergone significant scientific investigation in humans, therefore much of its use is based on pharmacological effects demonstrated in experimental models or traditional usage. In practice, it is often used in herbal combination treatments as part of the Ayurvedic system of medicine.</p> <p>Stress adaptation</p> <p>Oral administration of an aqueous, standardised extract of <i>W. somnifera</i> (in a dose extrapolated from the human dose) has been found to offer protection against experimentally induced biological, physical and chemical stressors.</p>	<p>Primary supporting</p>
--	---	---------------------------------	--	-----------	--	---------------------------

<p>elderly individuals</p>					<p>Anxiety and depression Recently, a double-blind, randomised study confirmed significant anxiolytic and antidepressant activity after 60 days of treatment with an oral root extract standardised to at least 5% withanolide content.</p> <p>Compared to placebo, a daily dose of 300mg of standardised root extract of <i>W. somnifera</i> root for 60 days resulted in a highly significant reduction in all measures compared to placebo ($P < 0.0001$). Additionally, greater serum cortisol reductions were seen with active treatment compared to placebo ($P < 0.0006$).</p> <p>Anaemia The herb is used in the treatment of iron-deficiency anaemia due to its effects on haematopoiesis and natural iron content.</p> <p>Osteoarthritis The documented anti-inflammatory, chondroprotective and antioxidant activities of <i>Withania</i> provide some support for its traditional use in arthritis.</p> <p>Sleep</p>	
----------------------------	--	--	--	--	---	--

					<p>As its alkaloids are considered to be sedative and able to reduce blood pressure and heart rate, Withania is also used as a treatment for insomnia, although controlled trials are lacking in this area.</p> <p>Other Uses Traditionally used in convalescence for people who are stressed and both physically and emotionally exhausted, it is considered a non-stimulating tonic allowing for the restoration of vitality.</p>	
	<p>WHO monographs on selected Medicinal Plants Vol 4, 2009, Radix Withaniae, pp. 373-391</p>	<p>Withania somnifera (root)</p>	<p>Crude drug, extracts and tinctures.</p> <p>DHE 3–6g of the dried powdered root.</p>	<p>NA</p>	<p>Uses supported by clinical data As an antistress agent to improve reaction time.</p> <p>Uses described in pharmacopoeias and well-established documents As a general tonic to increase energy, improve overall health and prevent disease in athletes and the elderly.</p> <p>Uses described in traditional medicine Treatment of bronchitis, dyspepsia, impotency, scabies and ulcers.</p>	<p>Primary supporting</p>

	<p>Kapoor LD Handbook of Ayurvedic Medicinal Plants Boca Raton CRC Press 2001</p>	<p><i>Withania somnifera</i> Root</p>	<p>Decoction of powdered root: 3 to 6 g</p>		<p>Ayurvedic description — Rasa — madhura, kasaya, tikta; Guna — lagu, snigdha; Vipaka — madhura; Veerya — ushna.</p> <p>Action and uses — Kaf bat samak, soth har, badana asthapan, nari doraybalya, batbikara.</p> <p>Pharmacological action — Tonic, alterative, astringent, aphrodisiac, and nervine sedative.</p> <p>Root is also diuretic and deobstruent, tonic, alterative, and aphrodisiac.</p> <p>Medicinal properties and uses — Roots are used as a hypnotic in alcoholism and emphysematous dysphonia. Root is used as an application in obstinate ulcers and rheumatic swelling. It is given in doses of about 2 g in consumption, emaciation of children, senile debility, rheumatism, in all cases of general debility, nervous exhaustion, brain fag, loss of memory, loss of muscular energy, and spermatorrhea. It infuses fresh energy and vigor in a system worn out owing to any constitutional disease like syphilis, and in rheumatic fever.</p>	<p>Primary supporting</p>
--	---	---	---	--	--	--

	<p>Therapeutic Research Center. (2024). Ashwagandha. Retrieved from Natural Medicines website.</p>	Ashwagandha	1000 mg	NA	<p>Ashwagandha is used in traditional medicine, usually as an adaptogenic herb</p> <p>Possibly effective Anti-stress effects</p> <p>Oral ashwagandha seems to help reduce stress and may also reduce stress-related weight gain.</p> <p>Some researchers think ashwagandha has a so-called "anti-stressor" effect". Preliminary research suggests ashwagandha suppresses stress-induced increases of dopamine receptors in the corpus striatum of the brain. It also appears to reduce stress-induced increases of plasma corticosterone, blood urea nitrogen, and blood lactic acid.</p> <p>Anxiolytic effects: Ashwagandha seems to have anxiolytic effects in laboratory research: Ashwagandha seems to have anxiolytic effects in laboratory research</p> <p>Immunologic effects:</p> <p>Ashwagandha and its constituents seem to have immunomodulatory effects. The withanolides and siterosides seem to cause a</p>	Secondary supporting
--	--	-------------	---------	----	---	----------------------

					<p>mobilization of macrophages, phagocytosis, and lysosomal enzymes.</p> <p>Memory effects: In animal and human research, ashwagandha or its constituents improved memory function. Mechanisms of action may involve the restoration of pre- and post-synapses in cortical neuron axons and dendrites, increased axonal density, or increased peripheral nervous system myelin.</p> <p>Reproductive effects: In clinical research, ashwagandha seems to improve sperm count and motility in adult males. These effects seem to be related to improved levels of testosterone, luteinizing hormone (LH), follicle-stimulating hormone (FSH), and prolactin.</p> <p>Respiratory effects: Ashwagandha seems to stimulate respiratory function.</p>	
--	--	--	--	--	---	--

					<p>Thyroid effects: Ashwagandha seems to stimulate thyroid synthesis and/or secretion. In clinical and animal research, ashwagandha has been reported to stimulate thyroid function, increasing serum triiodothyronine (T3) and thyroxine (T4) concentrations and reducing serum thyroid stimulating hormone (TSH) levels.</p>	
--	--	--	--	--	--	--

	<p>Pérez-Gómez J u <i>et al.</i>, Effects of Ashwagandha (<i>Withania somnifera</i>) on VO_{2max}: A Systematic Review and Meta-Analysis, <i>Nutrients</i> 2020, 12, 1119; doi:10.3390/n12041119</p>	<p><i>Withania somnifera</i></p>	<p>Includes 5 RCTs Dose range: 300mg of KSM-66, another aqueous extract 330mg and studies of 1000 mg of <i>Withania somnifera</i> root/day</p>	<p>NA</p>	<p>This systematic review examined the effects of supplementation with <i>Withania somnifera</i> (Ashwagandha) on maximum oxygen consumption (VO_{2max}). A meta-analysis was carried out to determine the effect sizes of Ashwagandha on VO_{2max}.</p> <p>The review was conducted following the statements of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Guidelines (PRISMA).</p> <p>Conclusions Authors concluded that Ashwagandha supplementation might improve the VO_{2max} in athlete and non-athlete individuals. The analysed studies used oral administration of Ashwagandha which varied between 2 and 12 weeks with intakes between 300 to 1000mg per day. Due to the limited number of studies included in this systematic review and meta-analysis, further research is needed to confirm the effects and the recommended dose.</p>	<p>Secondary supporting</p>
--	--	----------------------------------	--	-----------	--	-----------------------------

	<p>GlobinMed, Global Information Hub on Integrated Medicine, 2021</p>	<p>Ashwagandha root</p>	<p>450mg (standardized extract), 2-3 times a day</p>	<p>NA</p>	<p>Ashwagandha root, also known as winter cherry or Indian ginseng, is an important herb from the Ayurvedic or Indian system of medicine. Ashwagandha has been traditionally used for the treatment of debility, emaciation, impotence, and premature aging. This dietary supplement is used to enhance mental and physical performance, improve learning ability, and decrease stress and fatigue. Ashwagandha is a general tonic to be used in stressful situations, especially insomnia, overwork, nervousness, and restlessness.</p> <p>Frequently reported uses</p> <ul style="list-style-type: none"> ● Adaptogen, Tonic ● Exhaustion ● Stress ● Convalescence after acute or chronic illness ● Anti-aging ● Arthritis, inflammation ● Adjunctive support in chemotherapy and radiation ● Nervous exhaustion <p>Radiation therapy</p>	<p>Secondary supporting</p>
--	---	-------------------------	--	-----------	---	-----------------------------

	Association of Naturopathic Practitioners. (2024). Ashwagandha. Retrieved from: Herb Drug Nutrient.	Ashwagandha, Withania, winter cherry	3–6 g per day (dried herb) 40–90 ml per week liquid extract (1:2)	NA	<p>Actions: Adaptogen anti-inflammatory Antiarrhythmic Anxiolytic Bladder tonic Nervine tonic Sedative Tonic</p> <p>Indications Anaemia, Connective tissue disorders, convalescence, , emaciation, connective tissue, debility, exhaustion, hypertension, immune deficiency, impotence, inflammation, (ovaries/testes), menopause, depression, nervous exhaustion, PMS, stress.</p>	Secondary supporting
--	---	--------------------------------------	--	----	---	----------------------

	<p>Botanical Council Integrative Medicine Herbclip™ (September 15, 1999): <i>Ashwagandha</i> Monograph, The European Journal of Herbal Medicine, 1998, Vol. 4, Issue 2. pp. 17-22.</p>	<p>Ashwagandha</p>	<p>NA</p>	<p>NA</p>	<p>Ashwagandha's use as an herbal medicine has been widely practiced in Ayurvedic, Unani and Middle Eastern traditional medicines where it is highly regarded as a panacea, aphrodisiac and rejuvenative.</p> <p>Ashwagandha root is traditionally used for its adaptogenic actions. Unlike the popular adaptogens Asian ginseng (<i>Panax ginseng</i>) and Siberian ginseng (<i>Eleutherococcus senticosus</i>), ashwagandha tends to have sedative instead of stimulant effects. Withania alkaloids also may have hypotensive actions, unlike ginseng, and may be indicated for persons with high stress presenting symptoms of hypertension and/or insomnia.</p> <p>A double-blind study in India on children aged 8 to 12, studied the effects of 2g daily for 60 days. Body weight, mean red blood cell haemoglobin and grip strength were improved. Another clinical trial conducted over one year on men in their 50's also showed improved red blood cell count, haemoglobin,</p>	<p>Secondary supporting</p>
--	--	--------------------	-----------	-----------	---	-----------------------------

					hair melanin, and sexual performance.	
	Duke, J. (1929) Ashwagandha. In Handbook of Medicinal Herbs (2nd Ed., pp. 41-42). CRC Press.	Ashwagandha	150-300 mg standardized extract 2-3g powdered root, 3 x day 6-12 ml/day fluid extract (1:2)	NA	Indications Adenopathy; Addiction; Aging; Alcoholism; Amenorrhea; Anaemia; Anorexia; Arthritis; Backache; Bronchitis; Childbirth; Chill; Cholecystitis; Cold; Cough; Cramp; Cystitis; Debility; Dermatitis; Dyspepsia; Emaciation; Fever; Fungus; Herpes; Hiccup; High Blood Pressure; High Cholesterol; Immunodepression; Infection; Inflammation; Insomnia; Milk Deficiency; Miscarriage; Nausea; Nervousness; Pain; Psoriasis; Rheumatism; Ringworm; Sore; Stress; Swelling; Virus; Water Retention; Wound; Yeast	Secondary supporting

	<p>Pole S Ayurvedic medicine the principles of traditional practice Elsevier 2006</p>	<p><i>Withania somnifera</i> root</p>	<p>3–9g per day dried root or 6–15ml per day of a 1:3 @ 45% tincture</p>	<p>The irony of ashwagandha is that it is a tonic and sedative all in one. It strengthens an exhausted nervous system that can manifest with ‘hyper’ signs such as emotional instability, agitation or feeling stressed out. It has the dual action of energising while calming.</p> <p>BIOMEDICAL ACTION</p> <p>Adaptogen, tonic, anti-inflammatory, immunomodulator, antitumour, nervine, mild sedative, analgesic, reproductive tonic, aphrodisiac, antianaemic.</p> <p>INDICATIONS</p> <p>Tissues Debility, low body weight, emaciation, deficient haemoglobin, anaemia, post-convalescent weakness, athletic exertion and with caution in pregnancy. It is useful for any imbalance in the muscles as it both reduces inflammation and strengthens muscle tone. As it benefits all muscle tissue it is used as a heart tonic, uterine tonic, and a lung tonic, as well as for increasing muscle weight and tone in</p>	<p>Secondary supporting</p>
--	--	---	--	---	-----------------------------

					<p>convalescents, slow-developing children, and the elderly.</p> <p>Immunity Autoimmune conditions, neutropenia, rheumatoid and osteoarthritis, cancer, and chronic connective tissue disorders. As a painkiller and anti-inflammatory it is commonly used in swollen or painful arthritic conditions. It can strengthen a weakened immune system and protect it from becoming depleted due to immunosuppressive drugs or lifestyle. Improves white blood cell counts. It appears to have both immunosuppressive and immunotonic abilities and is therefore a 'true' adaptogen (Tillotson 2001).</p> <p>Lungs Asthma, cough and allergic conditions from low immunity with high kapha and vāta. Useful in hayfever, allergic rhinitis from aggravated vāta and kapha.</p> <p>Nerves Neurosis, insomnia, anxiety, excessive thinking, 'hyper' symptoms and attention deficit and hyperactivity disorder (ADHD). Very useful in all conditions caused by</p>	
--	--	--	--	--	--	--

					<p>‘stress’ as it has a specific affinity for the majjā dhātu and helps to regulate the movement of vyāna vāyu in the heart. Its tropism for the nervous system benefits multiple sclerosis (Tillotson 2001). It both relaxes frayed nerves and tonifies the central nervous system to enhance tolerance to stress. It is a nourishing nevine as opposed to a heavy sedative.</p> <p>Reproductive Its rejuvenating effect on śukra dhātu helps to alleviate asthenospermia (increasing sperm motility), oligospermia (increasing sperm count), and poor sexual performance, and helps to reduce impotence (Bhāvaprakāśa, Paranjpe 2001). Its unique action or prabhāva is to promote sexual potency and sperm production. External application of ashwagandha oil is used for impotence.</p> <p>Gynaecology Excellent tonic to the uterine muscles. Used in menstrual imbalance caused by a deficient condition with an aggravation of vāta and uterine spasms;</p>	
--	--	--	--	--	---	--

					dysmenorrhoea, amenorrhoea, weakness. Thyroid Very useful in hypothyroid disorders to regulate thyroid activity.	
--	--	--	--	--	--	--

INDICATION 2						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> Traditionally used in Ayurvedic medicine to decrease/relieve symptoms of stress Traditionally used in Ayurvedic medicine to support healthy stress response in the body 	Health Canada Monographs, Health Canada, 2024	<i>Withania somnifera</i> (Ashwagandha) root	Methods of preparation: Dry, Powder, Non-Standardized Extracts (Dry extract, Tincture, Fluid extract, Decoction, Infusion) extract equiv. to dry: 2 – 6.5 grams of dried root, per day	NA	Traditionally used in Ayurveda to relieve general debility, especially during convalescence or old age Traditionally used in Ayurveda to help relieve restlessness and/or nervousness (which helps (to) promote sleep) Traditionally used in Ayurveda to balance aggravated Vata (nervine) Traditionally used in Ayurveda for memory enhancement Used in Herbal Medicine as an adaptogen to help increase energy and resistance to stress (e.g. in case of mental and physical fatigue related to stress)	Primary supporting

<ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to Maintain/support healthy sleeping patterns • Traditionally used in Ayurvedic medicine to Maintain/support nervous system function • Traditionally used in Ayurvedic medicine to Maintain/support nervous system health • Traditionally used in Ayurvedic medicine to Support healthy emotional/mood balance • Traditionally used in Ayurvedic 	<p>Braun, L., & Cohen, M. (2015). Withania. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1185-1196). Chatswood, NSW: Elsevier Australia.</p>	<p>Withania root and leaves</p>	<p><i>Dried root:</i> 3–6 g/day in capsule or tea form</p>	<p>NA</p>	<p>Withania is often referred to as ‘Indian ginseng’ because it is used in much the same way as <i>Panax ginseng</i> in traditional Chinese medicine, although it is considered less stimulating. In Ayurvedic medicine it is classified as a ‘rasayana’, used to promote physical and mental health and improve vitality and longevity.</p> <p>Stress adaptation Oral administration of an aqueous, standardised extract of <i>W. somnifera</i> (in a dose extrapolated from the human dose) has been found to offer protection against experimentally induced biological, physical and chemical stressors.</p> <p>Anxiety and depression Recently, a double-blind, randomised study confirmed significant anxiolytic and antidepressant activity after 60 days of treatment with an oral root extract standardised to at least 5% withanolide content. Compared to placebo, a daily dose of 300mg of standardised root extract of <i>W. somnifera</i> root for 60 days resulted in a highly significant reduction in all measures compared to placebo ($P < 0.0001$). Additionally, greater serum cortisol reductions were seen with active</p>	<p>Primary supporting</p>
---	--	---------------------------------	--	-----------	---	---------------------------

<p>medicine to Maintain/support cognitive function/mental function</p> <ul style="list-style-type: none"> • Traditionally used in Ayurvedic medicine to Maintain/support memory/mental recall • Traditionally used in Ayurvedic medicine to Maintain/support general mental wellbeing 					<p>treatment compared to placebo ($P < 0.0006$).</p> <p>Sleep As its alkaloids are considered to be sedative and able to reduce blood pressure and heart rate, Withania is also used as a treatment for insomnia, although controlled trials are lacking in this area.</p> <p>Other Uses Traditionally used in convalescence for people who are stressed and both physically and emotionally exhausted, it is considered a non-stimulating tonic allowing for the restoration of vitality.</p>	
	<p>WHO monographs on selected Medicinal Plants Vol 4, 2009, Radix Withaniae, pp. 373-391</p>	<p>Withania somnifera (root)</p>	<p>Crude drug, extracts and tinctures. DHE 3–6g of the dried powdered root.</p>	<p>NA</p>	<p>Uses supported by clinical data As an antistress agent to improve reaction time.</p> <p>Uses described in pharmacopoeias and well-established documents As a general tonic to increase energy, improve overall health and prevent disease in athletes and the elderly.</p>	<p>Primary supporting</p>

	Kapoor LD Handbook of Ayurvedic Medicinal Plants Boca Raton CRC Press 2001	<i>Withania somnifera</i> Root	Decoction of powdered root: 3 to 6 g		Pharmacological action — Tonic, and nervine sedative. Medicinal properties and uses — Roots are used as a hypnotic in alcoholism and emphysematous dysphonia. It is given in doses of about 2 g in consumption, emaciation of children, senile debility, in all cases of general debility, nervous exhaustion, brain fag, loss of memory, loss of muscular energy, and spermatorrhea. It infuses fresh energy and vigor in a system worn out owing to any constitutional disease like syphilis, and in rheumatic fever.	Primary supporting
--	--	---------------------------------------	--	--	---	-----------------------

	Therapeutic Research Center. (2024). Ashwagandha. Retrieved from Natural Medicines website.	Ashwagandha	1000 mg	NA	<p>Ashwagandha is used in traditional medicine, usually as an adaptogenic herb</p> <p>Possibly effective</p> <p>Anti-stress effects</p> <p>Oral ashwagandha seems to help reduce stress and may also reduce stress-related weight gain. Some researchers think ashwagandha has a so-called "anti-stressor" effect". Preliminary research suggests ashwagandha suppresses stress-induced increases of dopamine receptors in the corpus striatum of the brain. It also appears to reduce stress-induced increases of plasma corticosterone, blood urea nitrogen, and blood lactic acid.</p> <p>Anxiolytic effects: Ashwagandha seems to have anxiolytic effects in laboratory research: Ashwagandha seems to have anxiolytic effects in laboratory research</p>	Secondary supporting
--	---	-------------	---------	----	---	----------------------

	GlobinMed, Global Information Hub on Integrated Medicine, 2021	Ashwagandha root	450mg (standardized extract), 2-3 times a day	NA	<p>Ashwagandha has been traditionally used for the treatment of debility, emaciation, impotence, and premature aging. This dietary supplement is used to enhance mental and physical performance, improve learning ability, and decrease stress and fatigue. Ashwagandha is a general tonic to be used in stressful situations, especially insomnia, overwork, nervousness, and restlessness.</p> <p>Frequently reported uses</p> <ul style="list-style-type: none"> • Adaptogen, Tonic • Exhaustion • Stress • Convalescence after acute or chronic illness • Anti-aging • Nervous exhaustion 	Secondary supporting
	Association of Naturopathic Practitioners. (2024). Ashwagandha. Retrieved from: Herb Drug Nutrient.	Ashwagandha, Withania, winter cherry	3–6 g per day (dried herb) 40–90 ml per week liquid extract (1:2)	NA	<p>Actions: Adaptogen Anxiolytic Nervine tonic Sedative Tonic</p> <p>Indications convalescence, emaciation, debility, exhaustion, depression, nervous exhaustion, PMS, stress.</p>	Secondary supporting

	<p>Botanical Council Integrative Medicine Herbclip™ (September 15, 1999): <i>Ashwagandha</i> Monograph, The European Journal of Herbal Medicine, 1998, Vol. 4, Issue 2. pp. 17-22.</p>	Ashwagandha	NA	NA	<p>Ashwagandha's use as an herbal medicine has been widely practiced in Ayurvedic, Unani and Middle Eastern traditional medicines where it is highly regarded as a panacea, aphrodisiac and rejuvenative. Ashwagandha root is traditionally used for its adaptogenic actions.</p>	Secondary supporting
	<p>Duke, J. (1929) <i>Ashwagandha</i>. In Handbook of Medicinal Herbs (2nd Ed., pp. 41-42). CRC Press.</p>	Ashwagandha	<p>150-300 mg standardized extract 2-3g powdered root, 3 x day 6-12 ml/day fluid extract (1:2)</p>	NA	<p>Indications Debility; Emaciation; Insomnia; Nausea; Nervousness; Rheumatism; Stress;</p>	Secondary supporting

	<p>Pole S Ayurvedic medicine the principles of traditional practice Elsevier 2006</p>	<p><i>Withania somnifera</i> root</p>	<p>3–9g per day dried root or 6–15ml per day of a 1:3 @ 45% tincture</p>	<p>The irony of ashwagandha is that it is a tonic and sedative all in one. It strengthens an exhausted nervous system that can manifest with 'hyper' signs such as emotional instability, agitation or feeling stressed out. It has the dual action of energising while calming. BIOMEDICAL ACTION Adaptogen, tonic, nervine, mild sedative, INDICATIONS Nerves Neurosis, insomnia, anxiety, excessive thinking, 'hyper' symptoms and attention deficit and hyperactivity disorder (ADHD). Very useful in all conditions caused by 'stress' as it has a specific affinity for the majjā dhātu and helps to regulate the movement of vyāna vāyu in the heart. Its tropism for the nervous system benefits multiple sclerosis (Tillotson 2001). It both relaxes frayed nerves and tonifies the central nervous system to enhance tolerance to stress. It is a nourishing nevine as opposed to a heavy sedative.</p>	<p>Secondary supporting</p>
--	--	---	--	---	-----------------------------

INDICATION 3						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'

<ul style="list-style-type: none"> Traditionally used in Western herbal medicine to maintain /support healthy sexual function 	<p>WHO monographs on selected Medicinal Plants Vol 4, 2009, Radix Withaniae, pp. 373-391</p>	<p><i>Withania somnifera</i> (root)</p>	<p>Crude drug, extracts and tinctures. 3–6g DHE</p>	<p>NA</p>	<p>Uses described in traditional medicine Treatment of impotency.</p>	<p>Primary supporting</p>
	<p>Duke, J. (1929) Ashwagandha. In Handbook of Medicinal Herbs (2nd Ed., pp. 41-42). CRC Press.</p>	<p>Ashwagandha</p>	<p>300mg capsule 2x per day</p>	<p>NA</p>	<p>Actions include: Aphrodisiac, Tonic, Fertility</p> <p>Indications Infertility; Impotence;</p>	<p>Primary supporting</p>
	<p>Kapoor LD Handbook of Ayurvedic Medicinal Plants Boca Raton CRC Press 2001</p>	<p><i>Withania somnifera</i> Root</p>	<p>A decoction of powdered root- 3 to 6 g</p>		<p>Pharmacological action — Tonic, aphrodisiac, and nervine sedative. Root is also tonic, and aphrodisiac. Medicinal properties and uses. Root is given in doses of about 2 g in all cases of general debility, nervous exhaustion, and spermatorrhea.</p>	<p>Primary supporting</p>