

Ashwagandha

(*Withania somnifera*)



Among of all the medicinal plants used in India by old tradition of Ayurveda, Ashwagandha is the most highly prized. Use of the Ashwagandha root can be traced back as far as 3,000 years. Ashwagandha is classified as a rasayan, a rejuvenating or life extending agent.

The Indian Materia Medica recommends use of Ashwagandha for general debility, impotence, general aphrodisiac purposes, brain fatigue, low sperm count, nervous exhaustion, and in any cases in which general vigor must be restored. For men and women, for the old and the young, Ashwagandha builds strength from within.

Ashwagandha consists of dried mature roots of *Withania somnifera* a perennial shrub, found in waste land, cultivated field and open grounds throughout India. Roots straight, unbranched, thickness varying with age. roots bear fiber-like secondary roots, outer surface buff to grey-yellow with longitudinal wrinkles, crown consists of 2-6 remains of stem base, stem bases variously thickened, nodes prominent only on the side from where petiole arises, cylindrical, green with longitudinal wrinkles, fracture, short and uneven, odour, characteristic, taste, bitter and acid.

Active contents:

The principal bioactive compounds of *Withania somnifera* are withanolides, which are triterpene lactones. More than 40 withanolides and approximately 12 alkaloids and several saponosides have been isolated and identified from *Withania somnifera*. The withanolides are structurally related to the ginsenosides of *Panax ginseng*, hence the common name "Indian ginseng."^{1,2} Chemical constituents for the roots, fruits, seeds, and stem include withanone; withaferin A; withanolides A, D, an G; and saponosides IX, X, VII, and VIII. High performance liquid chromatography techniques to quantify constituents have also been^{3,4} established.⁵ Additional compounds, especially withanolides, have been described and evaluated, with variations dependent upon cultivation and varieties. Large amounts of iron are also found in the plant.⁶

Herb actions:

Anti-inflammatory effect: Ashwagandha has proven anti-inflammatory properties which help in the management of inflammatory joint disorders. In vitro and animal experiments suggest *Withania somnifera* may possess anti-inflammatory properties. Cultures of cartilage from patients with osteoarthritis and rheumatoid arthritis have been used to demonstrate *W. somnifera*'s protective effects on chondroplasts.^{7,8,9,10}

Anti-stress effect: Ashwagandha is a unique herb with anti-stress and adaptogenic action that improves physical and mental fitness. It increases physiological endurance and inhibits chronic stress-related physiological abnormalities. Ashwagandha extract protected against pentylentetrazol-induced seizures in a mouse anticonvulsant model when administered over a 9-week period.¹¹ Ibotenic acid-induced lesions in intact rat brain that led to cognitive deficit, as measured by performance in a learning task, were reversed by treatment with a withanolide mixture.¹²

Antioxidant effects: It is a powerful antioxidant which scavenges free radicals in cells that are responsible for chronic diseases. Withanolide glycosides activated murine macrophages and phagocytosis, and increased lysosomal enzymatic activity secreted by the macrophages, while also displaying anti-stress activity and positive effects on learning and memory in rats.¹³

Aphrodisiac effects: One of the chemically active ingredients found in Ashwagandha is withanolides. These phytochemicals appear to have a steroid like effect, meaning that they indirectly increase activity of steroidal hormones like testosterone and progesterone. Because of testosterone's effect on sex drive, this could be what is behind Ashwagandha's purported aphrodisiac effects.¹⁴

Indication: General debility, stress, arthritis, hypertension, as an aphrodisiac.

Contraindication: None

Dose: 1 Capsule two to three times a day with milk or as advised by the Physician.

Composition: Each capsule contains 400 mg standardized extract of Ashwagandha (*Withania somnifera*).

References:

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