

Sejal A.
**WITHANIA SOMNIFERA, A MYSTERIOUS GRASS
OF AYURVEDI**

Tutor: PhD, associate professor Liubin H.S.

*Department of Pharmacology
Belarusian State Medical University, Minsk*

Withania somnifera Dunal (ashwagandha, WS) is widely used in Ayurvedic medicine, the traditional medical system of India. Ashwagandha appears to benefit the endocrine, cardiopulmonary, and central nervous systems. It is an ingredient in many formulations prescribed for a variety of musculoskeletal conditions (e.g., arthritis, rheumatism), and as a general tonic to increase energy, improve overall health and longevity, and prevent disease in athletes, the elderly, and during pregnancy.

In Ayurvedic medicine there is a class of herbs, including WS, known as adaptogens or vitalizers. Adaptogens cause adaptive reactions to disease, are useful in many unrelated illnesses, and appear to produce a state of nonspecific increased resistance (SNIR) to adverse effects of physical, chemical, and biological agents. Ashwagandha has been shown to contain high levels of flavonoids, phenolic compounds, and antioxidant compounds. Therefore ashwagandha can repair oxidative damage in cells and lipid peroxidation, as well as combat the formation of reactive oxygen species (ROS).

Ashwagandha is believed to modulate the hypothalamic-pituitary-adrenal (HPA) axis, which regulates the body's stress response. It may help lower cortisol levels, a hormone released in response to stress. It might also influence GABA receptors in the brain, promoting relaxation and reducing anxiety.

The use of WS as a general tonic to increase energy and prevent disease may be partially related to its effect on the immune system. WS extract significantly improved the immune profile of healthy subjects by modulating the innate and adaptive immune systems. Boosting the immune system of people at risk of infection and during widespread infections can be targeted with WS extract.