

MEDICINE, EDUCATION AND TECHNOLOGY: THEORY AND PRACTICE

Medicinal value of ginseng plant

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Abstract: The botanical name of the plant, *Panax ginseng*, C. A. Meyer, is a very old medicinal plant that originated in parts of China and Korea. It has been used as a medicinal plant for more than 2000 years in both traditional Chinese and Korean medicine. This article gives us information about growing ginseng and its ingredients. We can also see how ginseng is used to treat a variety of illnesses.

Keywords: Ginseng, Spread of Ginseng, Ginseng composition, Medicinal benefits of Ginseng.



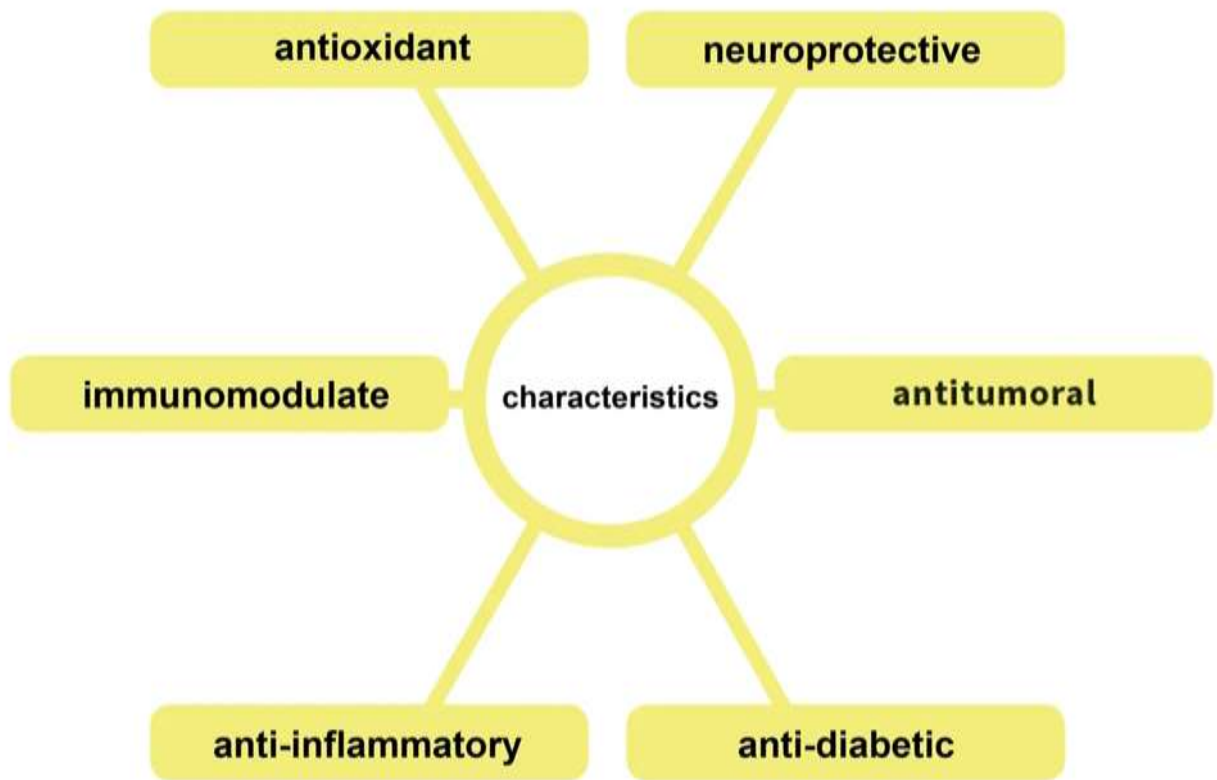
Introduction. In the past, ginseng was considered the most sacred herb in China, Korea, Japan, and America. Ginseng was found in the mountains of Manchuria, China, more than 5000 years ago. Books that date back more than two thousand years mention ginseng. The Chinese

hold it in high regard since it is seen as a herb that can be used for everything and, thus, for a variety of illnesses (its Latin name is currently taken from the Greek *panacea*, meaning, that is,

for everything). Therefore, the Chinese Emperors were the only ones who used it, and they were prepared to pay the price without any issues. As its popularity grew, ginseng introduced a thriving international trade that enabled Korea to swap wild ginseng and later what grows in America for silk and medications from China. A phrase known to the ancient Koreans as "ginseng shim" first appears in the "Guguepganyibangeanhae" manuscript, which was issued in 1489 under King Sejong. According to the Annals of King Jeongjo of Joseon (1776–1800 AD, the 22nd monarch of the Joseon

dynasty of Korea), ginseng (known as Hongsam in Korean) is called "red." Seo-Gung (1091–1153 AD, Song Dynasty) first used this name in the 1123 AD chronicle of "GoRyeoDoGyeong." The ginseng steaming method was first described in Seo-Gung's 1123 work "Do Hong-Gyeong," which was written during the Song era (1091–1153 AD). In this book, 365 different varieties of herbs from the Yuan era are categorized into three quality levels: high, mediocre, and low. Ginseng is categorized as a high-grade medication. Ginseng is said to dispel negative energy, calm the mind, and enhance the body's five digestive organs. Red ginseng was first cultivated in Korea in the late 14th or early 15th centuries, and professional ginseng growers (who are the only ones who can produce ginseng) were aware of the subsequent cultivation in the 17th and 18th centuries. Up until the 18th century, trading with China and Japan was actually one of the biggest marketplaces. Due to a lack of thorough documentation, we are unable to precisely define the red ginseng preparation procedure prior to 1200 AD, including the duration of steaming, the number of repetitions, and the drying process. Taekyoung Kim (1850–1927 AD) wrote a text in the SohoDang miscellany that provided a better description of the process at the end of the 1200s, and the Samjung-Yolam (A Bulletin of Ginseng Policy, 1908, Ministry of Strategy and Finance, The Greater Korean Empire) described the current method of preparing red ginseng. Around 11 B.C., P. ginseng was first cultivated in Korea through the transplantation of wild ginseng. Ginseng was first cultivated by transplanting seeds that had been propagated in 1122 AD. Finally, based on his parents' testimonies and official records, Kim Taek-yeong wrote about the beginnings of ginseng growing in the 20th century in his work "Hongsamji" ("Sohodang collection").

American ginseng (*P. quinquefolius*), native to the United States and Canada, and Korean ginseng (*P. ginseng*), endemic to the Korean Peninsula and northern China, are the two most often utilized ginseng species globally. Generally speaking, only *P. ginseng* is referred to as "Korean ginseng" or simply "ginseng." American and Korean ginseng are different species of plants with different ginsenosides, or saponins. Because red ginseng is made from fresh ginseng by steaming it without peeling the roots and then drying it, the amount and quality of ginsenosides it contains will vary depending on how this process is carried out. With the implementation of the Korean law on functional foods for health in 2004, red ginseng's health benefits were validated. Ginseng's composition and kind give a variety of properties, some of which are unique to a specific species and others of which are prevalent in different species but in varying amounts. Strong antioxidants found in ginseng help prevent the effects of aging. Additionally, it has been demonstrated that they serve as useful, adaptive compounds that aid in the body's adaptation and recovery from the negative effects of stress, disease, and exhaustion. Additionally, ginseng contains minerals (trace elements zinc, copper, magnesium, calcium, iron, manganese, vanadium, potassium, sodium, and phosphorus), vitamins (B1, B2, B3, B5, B12, and choline), volatile oil polysaccharides, starch, pectin, and sterols. Protopanaxadiol (PPD) and protopanaxatriol (PPT) are the two main categories among the approximately 50 different types of ginsenosides that have been found. The red ginseng contains ginsenosides Rg2, Rg6, F4, 20(E)-F4, Rh1, Rh4, Rk3, Rg3, Rg5, Rz1, Rk1, Rg9, and Rg10. These are derived from the main ginsenosides Rb1, Rb2, Rc, Rd, Rg1, and Re, and they work similarly to steroid hormones. The many properties of ginseng are determined by its kind and composition; some ginsengs are common in multiple varieties of ginsengs, albeit in varying amounts, while others are specific to a particular species.



Performance (mental and physical):

In addition to improving cognitive function and decreasing subjectively reported weariness during prolonged mental work, one study was able to demonstrate that ginseng reduces blood glucose levels in healthy participants. According to the authors, the beneficial impact on glucose metabolism also promotes cognitive abilities. Additionally, a Cochrane study found that individual ginseng studies indicate improvements in behavior, quality of life, and cognitive abilities. Similarly, ginseng has a favorable effect on psychomotor traits (talking, walking, facial expressions, and gestures). However, there is no proof that ginseng has the frequently suggested impact on physical performance. There is now solid proof that taking 1000 mg of American ginseng twice a day will help reduce cancer-related fatigue. No other successful treatments have been found prior to this investigation.

Effect on glucose metabolism:

Ginseng's impact on glucose metabolism has been the subject of several studies. The majority were able to show encouraging outcomes or validate that ginseng can lower blood glucose levels and has a positive impact on glucose management. The outcomes of 16 clinical trials where different ginseng extracts were consumed for 4–24 weeks were compiled in a 2014 meta-analysis. Ginseng had no effect on HbA1c or insulin levels when compared to controls, although it was able to considerably but marginally lower fasting blood glucose in both diabetics and non-diabetics. Additional application

areas: There is some evidence that it improves erectile dysfunction and has a positive impact on the immune system, heart, and lungs.

The following adverse effects have been recorded by users, despite ginseng's typically safe consumption:

Headaches

Issues with sleep

Intestinal issues

Variations in blood sugar and blood pressure

- diarrhea

Fast heartbeat

severe response of the skin

Therefore, using little amounts of ginseng is usually safer.

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