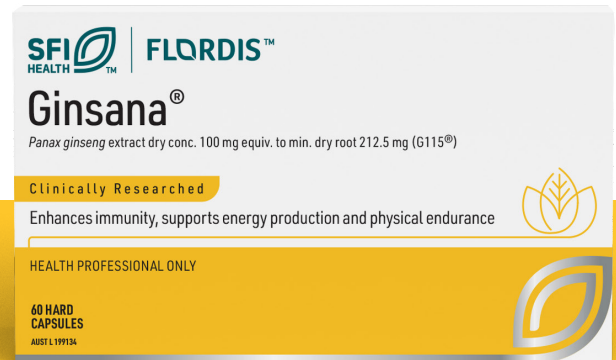


Ginsana®

**For supporting immunity,
energy production
and physical endurance**



The Ginsana® difference

- Uses a clinically trialled specific extract of *Panax ginseng* – G115®.
- G115® is the first ginseng extract to be standardised on a defined content of ginsenosides (to the total of eight major ginsenosides).¹
- G115® is the first extract registered in the European market (in 1961) as the active ingredient of herbal medicine products.¹
- Ginsana® is obtained through high quality and controlled processes and only uses 'white' C.A Meyer *Panax ginseng*.
- High quality, researched efficacy in many double-blind, placebo-controlled studies, with a good tolerance profile.
- G115® conforms or follows the guidelines of global monographs and pharmacopoeias, with Ginsana® specific research used to support ginseng's efficacy.
- Well established tolerability through clinical research, with no known reported drug interactions.

**Ginsana® contains the scientifically researched extract of
Panax ginseng C.A. Meyer – G115®**

Ginsana® therapeutic indications

- Improve immune defence.
- Helps enhance immune system function.
- Helps stimulate a healthy immune system response.
- Support physical endurance and stamina.
- Supports energy levels and energy production.
- Relieves feelings of tiredness and fatigue.
- Assists the body to cope with environmental stress.
- Supports healthy body stress recovery.
- Supports cognitive function.
- Maintains vitality.

***Panax ginseng* C.A. Meyer G115® extract is clinically researched to support immunity, energy production and physical endurance**



Multiple clinical trials and history of use show efficacy and tolerability



Ginsana® has a long history of use and high levels of tolerability:

- With more than 40 years of scientific research (International birth date 26 June 1978) and over 25 clinical trials published in different peer-reviewed journals.
- Research and the use in millions of people globally shows tolerability.
- Ginsana® has been studied in both healthy young and older adults.

Ginsana® research summary

Ginsana®, containing the specialised extract G115®, has been studied for efficacy and tolerability in thousands of patients over many years. This research shows a clinically researched use of Ginsana® for supporting immunity, energy production and physical endurance.

Lead Author/Year	Study Design	Subjects/Dose	Outcome Summary
Forgo I, et al. 1981 ² .	Open, comparison study.	20 male adult athletes (18-30 years). Ginsana® 2 capsules daily for 9 weeks.	Efficacy study – physical and mental performance Ginsana® improved oxygen uptake and reduced lactate levels after prolonged treatment, resulting in a better physical performance and shorter recovery time.
Forgo I, et al. 1981 ³ .	Double-blind, placebo-controlled study.	120 healthy adults (30-60 years). Ginsana® 1 capsule twice a day, or placebo, for 12 weeks.	Efficacy study – physical and mental performance Ginsana® had a positive influence on physical and mental functions.
Rosenfeld M, et al. 1989 ⁴ .	Open, placebo-controlled study.	50 patients with psychophysical asthenia (48%), depressive symptoms and neurological disorders (24-66 years). Ginsana® 2 capsules daily for 56 days.	Efficacy study- fatigue Ginsana® had a beneficial therapeutic effect on psychophysical asthenia (abnormal weariness and fatigue), significantly reducing fatigue and improving cognition.
Scaglione F, et al. 1996 ⁵ .	Randomised, double-blind, placebo-controlled study.	227 adults (mean age 48 years). Ginsana® 2 capsules a day for 12 weeks.	Efficacy study – immune Ginsana® was able to improve the immune response in vivo in humans, and reduce the incidence of illness, compared to placebo.
Reay JL, et al. 2005 ⁶ .	Randomised, double-blind, placebo-controlled, balanced-crossover study.	30 healthy young adults (mean age 22.6 years). Ginsana® 2 or 4 capsules, or placebo, as a single dose.	Acute efficacy study - cognitive performance and fatigue Ginsana® improved cognitive performance and subjective feelings of mental fatigue during sustained mental activity. The 200mg dose (2 capsules) provided greater overall benefits.

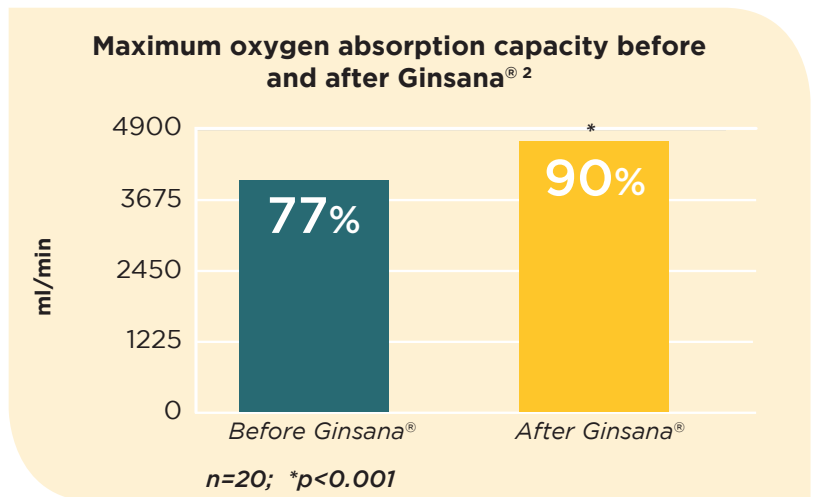
Ginsana® extracts - global monographs and pharmacopoeias

The Ginsana® extract conforms or follows the guidelines of worldwide monographs and pharmacopoeias, including the European Pharmacopoeia, WHO Monographs, German Commission E Monograph, and ESCOP Monographs. In the ESCOP monograph, six studies are indicated to support ginseng's efficacy for energy related indications, five of them are studies using Ginsana®.⁷ Likewise, the WHO monograph refers to nine studies; seven of these use Ginsana®.⁷⁻¹¹

Ginsana® enhances physical endurance

An open study demonstrated Ginsana® significantly increased oxygen uptake capacity over 9 weeks treatment. It also significantly lowered showed lactate and heart-rate values. A shorter recovery phase following workload was seen, thus corresponding to an improved physical performance.²

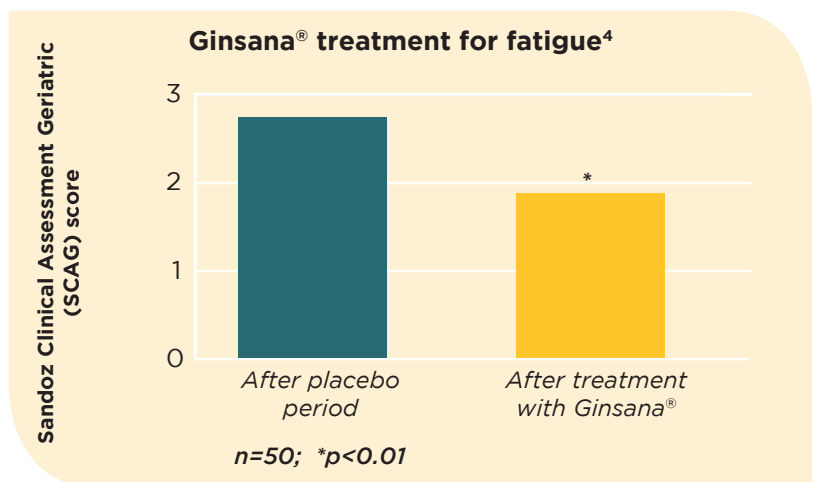
Forgo I, et al. On the question of influencing the performance of top sportsmen by means of biologically active substances. *Aerztl Prax.* 1981;33(44):1784-1786.



Ginsana® reduces fatigue

An open placebo-controlled study demonstrated Ginsana® significantly improved many symptoms in those with asthenia, with a highly significant change in tiredness after 56 days of treatment.⁴

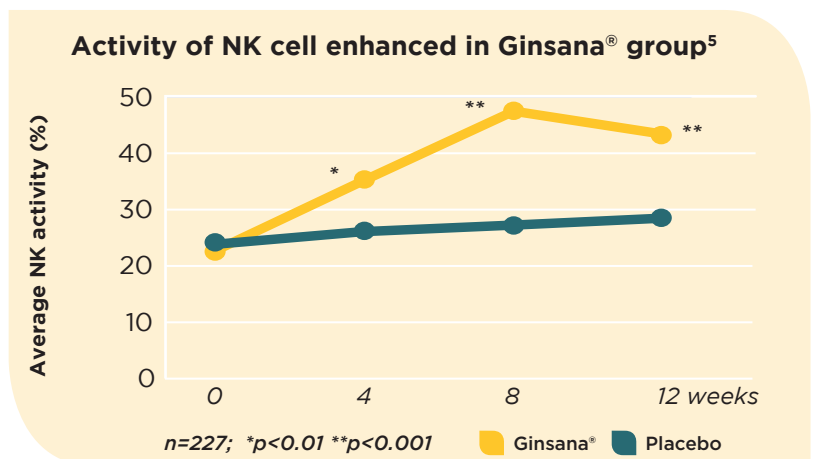
Rosenfeld M, et al. Evaluation of the efficacy of a standardized ginseng extract in patients with psychophysical asthenia and neurological disorders. *La Semana Medica.* 1989;173(9):148-154.



Ginsana® enhances immune system function

In a randomised, double-blind, placebo-controlled study, two Ginsana® capsules were given daily for 12 weeks. At week four, subjects also received an anti-influenza polyvalent vaccination. The results showed Ginsana® significantly increased the natural killer (NK) cell activity after the 8th and 12th week of treatment. It also increased the antibody titre levels post vaccination and reduced the incidence of illness, compared to the placebo.⁵

Scaglione F, et al. Efficacy and safety of the standardized Ginseng extract G115 for potentiating vaccination against the influenza syndrome and protection against the common cold. *Drugs Exp Clin Res.* 1996;22 (2):65-72.



Ginsana® potential modes of action

The exact modes of action for Ginsana® are still being elucidated; however, preclinical and clinical trials show that its effect on physical and mental capacity and immunity may be through:^{5,12-21}

- Improving oxygen uptake after prolonged treatment.
- Reducing lactate levels indicating a higher aerobic phase - increase in energy production.
- Supporting haemoglobin re-oxygenation.
- Supporting ATP production and glucose uptake.
- Involvement in AMPK, SIRT1 and PGC-1 α expression; therefore, supporting mitochondria synthesis and ATP production.
- Increasing phagocytosis, macrophage and lymphocyte stimulation and natural killer cell activity.
- Modulation of toll-like receptor activity and rebalancing Th1/Th2, in favour of Th1.
- Modulation of neurotransmitters and cytokine production.

Active ingredients

Each Ginsana® capsule contains:

Panax ginseng (Ginseng) specific ext. dry conc. G115® 100mg, equivalent to min. dry root 212.5mg, standardised to ginsenosides 4mg (4% ginsenosides).

G115® is standardised according to certain specifications for consistency and reproducibility of quality, efficacy and tolerance. The ginseng species most used as a herbal remedy is *Panax ginseng* C.A. Meyer (also called Asian or Korean ginseng) named after the Russian botanist Carl Anton Meyer. Only *Panax ginseng* C. A. Meyer is used to produce the G115® extract standardised on the total of eight major ginsenosides (4%) i.e. Rb1, Rb2, Rc, Rd, Re, Rf, Rg1, and Rg2. Additionally, only 'white' ginseng is used, as this provides the optimal yield of the naturally occurring ginsenosides. This is due to its long period of growth (5-7 years) and the gentle washing and natural sun drying of the roots, which preserves the active substances while ensuring unwanted contaminants are removed.

Dosage and administration

Adults: take 2 capsules per day with water (1 capsule after breakfast and 1 capsule after lunch).

It is recommended to take Ginsana® for a minimum of 4 weeks. Clinical studies demonstrate effects may be seen within days; however, results have been demonstrated up to 3 months of daily use.

Presentation

60 cylindrical (size no. 1), green opaque colour, hard gelatine capsules.

Storage conditions

Store below 25 °C.

Contraindications and precautions

Do not recommend if there is a history of hypersensitivity to *Panax ginseng*.

Contains up to 68mg lactose per capsule. According to a systematic review, up to 12-15 grams may be tolerated by those with lactose intolerance or malabsorption, with a minimum of 15 grams required for diagnosis.²² Therefore, 68mg is a very low amount of lactose. However, those with the rare hereditary conditions of galactose intolerance, lactase deficiency or glucose-galactose malabsorption should not take lactose containing medications.

There are no known reported drug interactions with Ginsana®. However, caution is advised in patients with bleeding disorders, those planning to have surgery, or in those on medications that may increase the risk of bleeding (anticoagulants, antithrombotics and antiplatelet medications), due to potential interactions with ginseng.

Pregnancy and lactation: Safety during pregnancy and lactation has not been established. In the absence of sufficient data, it is not recommended to use Ginsana® during pregnancy and lactation.

FAQ

Is Ginsana® a stimulant and who is it recommended for?

Ginsana® is an adaptogen that favours homeostasis. Ginsana® is an energiser, not a stimulant. Ginsana® is recommended for people who have multiple tasks to fulfil at business and home, with activities that require extra energy, family caring, or demanding recreational activities, such as sport. Ginsana® may help with mental and physical endurance and improve immune defence, including when stressed or fatigued.



No added:

- Gluten
- Wheat
- Corn
- Egg
- Soy
- Yeast
- Sesame
- Peanuts or tree nuts
- Genetically modified ingredients
- Artificial flavours, colours or sweeteners

References

1. **Bilia AR**, et al. The G115 standardized ginseng extract: an example for safety, efficacy, and quality of an herbal medicine. *J Ginseng Res.* 2020;44(2):179-93. 2. **Forgo I**, et al. On the question of influencing the performance of top sportsmen by means of biologically active substances. *Aerztl Prax.* 1981;33(44):1784-1786. 3. **Forgo I**, et al. Effect of a standardized ginseng extract on general well-being, reaction capacity, pulmonary function and gonadal hormones. *Med Welt.* 1981;32(19):751-756. 4. **Rosenfeld M**, et al. Evaluation of the efficacy of a standardized ginseng extract G115 for potentiating vaccination against the influenza syndrome and protection against the common cold. *Drugs Exp Clin Res.* 1996;22 (2):65-72. 5. **Reay JL**, et al. Single doses of *Panax ginseng* (G115) reduce blood glucose levels and improve cognitive performance during sustained mental activity' *J Psychopharmacol.* 2005 19(4):357-365. 6. **WHO Monographs on Selected Medicinal Plants**, Volume 1, Geneva, World Health Organization, 1999, 154-167 (1999) [S01 -0599]. 7. **Ginseng**: ginseng radix. *European Pharmacopoeia* 5.1.2005, 2935-2936. 8. **Ginseng radix**: ginseng. ESCOP Monographs: the Scientific Foundation for Herbal Medicinal Products, 2nd Edition, Exeter, ESCOP, 2003; 211-222 [S05-0651]. 9. **Radix ginseng**. WHO monographs on medicinal plants commonly used in the Newly Independent States (NIS). Geneva: World Health Organization, 141-159 (2010). 10. **Ginseng root**. The Expanded Commission E Monographs, American Botanical Council 2000. Available from <http://cms.herbalgram.org/expandedE/Ginsengroot.html>. 11. **Pannacci M**, et al. Activity of *Panax ginseng* CA Meyer on energy production in mammals. *Biochem Pharmacol.* 2016;5(221):2167-0501. 12. **Pannacci M**, et al. The extract G115 of *Panax ginseng* CA Meyer enhance energy production in mammals. *Planta Medica.* 2012;78(11):PE2. 13. **Ferrando A**, et al. Effects of standardized *Panax ginseng* extract on the skeletal muscle of the rat: a comparative study in animals at rest and under exercise. *Planta Medica* 1999; 65:239-244. 14. **Samira MM**, et al. Effect of the standardized ginseng extract G115® on the metabolism and electrical activity of the rabbit's brain. *J Int Med Res* 1985;13(6):342-348. 15. **Scaglione F**, et al. M: Effects of the standardised ginseng extract G115® in patients with chronic bronchitis. A nonblinded, randomised, comparative pilot study. *Clin Drug Invest* 2001; 21(1):41-45. 16. **Scaglione F**, et al. Immunomodulatory effects of two extracts of *Panax ginseng* C. A. Meyer. *Drugs Exptl Clin Res* 1990;16(10):537-542. 17. **Von Ardenne M**, et al. Measurements of the increase in the difference between the arterial and venous Hb-O2 saturation obtained with daily administration of 200 mg standardized ginseng extract G115 for four weeks. Long-term increase of the O2 transport into the organs and tissues of the organism through biologically active substances. *Panminerva Med* 1987;29(2):143-150. 18. **Pujol P**, et al. Effects of a ginseng extract alone and combined with other elements on free radical production and hemoglobin reoxygenation following maximal stress test. *Int Pre-Olympic Sci Cong*, Dallas, 10 -14 Jul (1996). 19. **Pannacci M**, et al. *Panax ginseng* C.A.Meyer G115® modulates pro-inflammatory cytokine production in mice throughout the increase of macrophage toll-like receptor 4 expression during physical stress. *Brain Behav Immun.* 2006;20:546-551. 20. **Kennedy DO**, et al. Ginseng: potential for the enhancement of cognitive performance and mood. *Pharmacol Biochem Behav* 2003; 75: 687-700. 21. **Shaukat A**, et al. Systematic review: effective management strategies for lactose intolerance. *Ann Intern Med.* 2010 Jun 15;152(12):797-803



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