Reishi Spores

Adjunctive Therapy during Radiation and Chemotherapy

Reishi spores are the microscopic reproductive units of the *Ganoderma lucidum* mushroom, released once the fruiting body reaches maturity. These spores are rich in bioactive compounds and are considered more potent than the fruiting body in some aspects due to their concentrated nutrient profile. For optimal absorption and efficacy, spores are typically "cracked" or "broken" to rupture the dual-layered spore wall. Compared to the fruiting body, the spores have higher concentrations of triterpenoids and essential fatty acids, particularly linoleic acid.

Mechanism of Action

- Modulation of cytokine production (increase of IL-2 and IFN-γ, decrease of TNF-α in inflammation)
- NK-cell and T-lymphocyte activation
- Antioxidant and anti-inflammatory effects via Nrf2 and NF-κB pathways
- Hepatoprotection via liver-enzyme regulation
- Inhibition of angiogenesis and tumor proliferation

Possible Clinical Indications

- Liver protection in hepatic disorders
- Adjunctive support in integrative cancer care
- Cancer-related fatigue
- PCOS
- BPH
- Immune modulation for auto-immune conditions
- Postsurgical immune stimulation

Indication-Specific Dosage Summary Based on Human Clinical Research

Please note that these suggestions are guidelines based on clinical studies. Evidence for efficacy and safety has been assessed qualitatively (study quality in terms of study design, sample size, appropriate methods of analysis, use of appropriate placebo/control, bias, etc.).

Indication	Study Design	Participants / Treatment / Outcome Measures	Results	Clinical Implications	Ref.
NEUROLOGICAL HEALTH					
Epilepsy	Retrospective study	*n* = 18 epileptic patients, aged 22 to 63 years. 1,000 mg of spore powder of *Ganoderma lucidum*, thrice a day for 8 weeks. Weekly seizure frequency, seizure episode, and Quality of Life in Epilepsy Inventory-31 (QOLIE-31).	*Ganoderma lucidum* spore powder showed to considerably decrease the frequency of seizures each week when compared to the levels observed prior to starting treatment.	This study found that spore powder of *Ganoderma lucidum* may help reduce the number of seizures people have each week. However, it also suggests more research is needed to confirm these results.	[1]

Indication	Study Design	Participants / Treatment / Outcome Measures	Results	Clinical Implications	Ref.
Alzheimer's	Randomized, placebo-controlled, pilot study	*n* = 42 Alzheimer's patients, aged 50 to 86 years. 4 capsules of 1,000 mg (250 mg ea.) of spore powder of *Ganoderma lucidum*, thrice a day for 6 weeks. Alzheimer's disease Assessment Scale-Cognitive (ADAS-cog), quality of life, Neuropsychiatric Index (NPI).	No significant effect was noted on ADAS-cog, NPI, and overall quality-of-life enhancement.	The study results indicate that *Ganoderma lucidum* spores were ineffective for treating AD after 6 weeks, likely due to the short treatment duration.	[2]
CANCER					
Breast and lung cancer	Randomized, placebo-controlled, double-blind study	*n* = 120 breast- and lung-cancer patients aged 37 to 92 years. 2,000 mg of *Ganoderma lucidum* spore powder twice a day for 6 weeks. T-lymphocyte subsets with relative cytokines were detected using flow cytometry and PCR and assessed by Spearman correlation analysis. Relationships between albumin-to-globulin ratio (AGR) and neutrophil-to-lymphocyte ratio (NLR).	The *Ganoderma lucidum* group demonstrated a higher prevalence of $CD3^+$, $CD4^+$, and $CD3^+$ $HLADR^-$ cell types compared to the control group. In contrast, the levels of $CD4^+$ $CD25^+$ regulatory T cells (T_{regs}) and $CD3^+$ $HLADR^+$ cell types were notably lower. Furthermore, during the treatment period, IL-12 levels rose significantly, which may have negatively influenced IL-10 levels.	This study's findings suggest that analyzing T-lymphocyte subsets along with relevant cytokines and AGR/NLR inflammatory predictors can help identify patients who will benefit most from *G. lucidum* treatment.	[3]
Breast cancer	Real-world propensity-score-matched study	*n* = 388 patients who were diagnosed with triple-negative breast cancers (age and dosage details not available). Evaluate the relationship between *Ganoderma lucidum* spore powder and prognosis.	*Ganoderma lucidum* spore-powder supplementation improved both overall survival (OS) and disease-free survival (DFS) before matching. After matching, the main results were like what was found before. Patients who received the treatment had better OS and DFS than those in the control group.	This real-world propensity-score-matched study shows that GLSP improves OS and DFS in early-stage triple-negative breast cancer (TNBC) patients, particularly in those with stage II and stage III cancer.	[4]

Indication	Study Design	Participants / Treatment / Outcome Measures	Results	Clinical Implications	Ref.
Breast Cancer	Pilot study	*n* = 48 breast-cancer patients with cancer-related fatigue aged 51 to 65. 1,000 mg of spore powder of *Ganoderma lucidum* thrice a day for 4 weeks. Functional Assessment of Cancer Therapy: Fatigue, The Hospital Anxiety and Depression Scale, European Organisation for Research and Treatment of Cancer Core Quality of Life Questionnaire C30. Also, concentrations of TNF-α, IL-6, and liver-kidney functions.	The experimental group showed clear improvements in physical wellbeing and reduced fatigue after the intervention. These patients felt less anxiety and depression and reported a better quality of life. They also had lower levels of immune markers linked to chronic respiratory failure.	This pilot study highlights the potential benefits of *Ganoderma lucidum* spore powder in alleviating cancer-related fatigue and enhancing the quality of life for breast-cancer patients undergoing endocrine therapy.	[5]
IMMUNE HEALTH					
Immunomodulatory effect	Randomized, placebo-controlled, double-blind study	*n* = 44 patients after the chemotherapy completion aged 50 to 60 years. 250 mg of spore powder of *Ganoderma lucidum* thrice a day for 8 weeks. Analysis of IgG, IgM, IgA, and IgE levels; complete blood counts; alanine transaminase (ALT); aspartate transaminase (AST), alkaline phosphatase (ALP); and renal-function tests.	At 8 weeks, the *Ganoderma lucidum* spore-powder group showed significant increases in white blood-cell and neutrophil counts, with no significant differences in other immune levels compared to the placebo. Renal and liver functions remained stable, and the GLBS group reported a better quality of life.	Consuming GLBS has been shown to enhance quality of life significantly, without causing serious adverse events. Moreover, it effectively stimulates immune cells in patients who have recently completed chemotherapy, offering a promising support for their recovery.	[6]
Antimicrobial activity	Pilot study	*n* = 20 patients diagnosed with chronic periodontitis (age details not available). 1 to 500 mcg/ml of *Ganoderma lucidum* spore powder prepared from 100 µL stock solution (10 mg in 1 mL of sterile saline). Minimum inhibitory concentration procedure.	13 of the 20 clinical samples tested were sensitive at varying concentrations. The mean minimum inhibitory concentration (MIC) of *Ganoderma lucidum* spore powder for *Prevotella intermedia* was 3.62 mcg/mL.	*Ganoderma lucidum*, well-known for its versatile bioactivity, has the potential to enhance antimicrobial treatments when paired with conventional therapies for periodontal disease.	[7]

Indication	Study Design	Participants / Treatment / Outcome Measures	Results	Clinical Implications	Ref.
PHARMACOLOGICAL EFFECTS					
Antitumour effect, immunomodulatory effect, anti-inflammatory effect, antioxidant effect	Systematic review of 40 in vitro studies, 26 in vivo studies, 18 studies that were both in vivo and in vitro, 3 clinical trials, and 2 case reports	*n* = 186 epileptic and cancer patients (from 3 clinical trials). 3,000 to 4,000 mg of *Ganoderma lucidum* spore powder for 4 to 8 weeks. Detection results of T-cell subsets, weekly seizure frequency after, QOLIE-31, each seizure episode (min), and effect in cancer patients.	Patients who may benefit from *Ganoderma lucidum* therapy can be identified by analyzing T-lymphocyte subsets, relevant cytokines, and AGR/NLR inflammatory markers. It may be helpful in lowering the frequency of weekly seizures. *Ganoderma lucidum* spore powder may enhance the quality of life and reduce fatigue in breast-cancer patients receiving endocrine treatment.	*Ganoderma lucidum* spores and extracts have strong pharmacological potential and are known for their antitumour, immunomodulatory, anti-inflammatory, and antioxidant effects. The sporoderm-breaking technique can enhance their effectiveness in disease prevention and treatment.	[8]

References

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Each vegetable capsule contains:

Reishi (*Ganoderma lucidum*)
spores (broken sporoderm) . . . . . 350 mg

Nonmedicinal ingredients: Vegetable magnesium stearate and silicon dioxide in a non-GMO vegetable capsule composed of vegetable carbohydrate gum and purified water.

Directions of use: **Adults:** Take 1 capsule four times daily or as directed by your health-care practitioner. To avoid digestive upset, take with food/meal.

Duration of use: Consult a health-care practitioner for prolonged use. *Symptom management:* Use for a minimum of 4 weeks to see beneficial effects.

Cautions and warnings: Consult a health-care practitioner prior to use if you suffer from an immune system disorder, if you are taking immunosuppressants or other prescription medications, or if you are pregnant or breast-feeding. Consult a health-care practitioner if symptoms persist or worsen, or if new symptoms develop.

Known adverse reactions: Hypersensitivity/allergy, dizziness, irritated skin, nausea, and diarrhea have been known to occur; in which case, discontinue use.

Product #2697 · 60 vegetable capsules · NPN 80108203 · V0724-R1