



Paving the Path to Optimal Health

# MEDICINAL MUSHROOMS

## Clinical benefits and applications

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The information provided in this document is strictly intended for healthcare professional use and educational use only and is not intended to diagnose, treat, cure, or prevent any disease.

# Medicinal Mushrooms– Comprehensive Overview

Medicinal mushrooms are one of the most researched classes of natural medicines. They have been used for millennia as a source of food and medicine, especially in traditional Chinese medicine. They are rich in polysaccharides (specifically  $\beta$ -glucans) and polysaccharide–protein complexes that stimulate host immune responses and possess anti-cancer properties.<sup>[1,2]</sup> Medicinal mushrooms have been predominantly used as adjuncts to chemotherapy or radiotherapy for various types of cancers. Medicinal mushrooms are also beneficial for patients with dementia and other neurological diseases.<sup>[1]</sup>

$\beta$ -glucans are potent immune-stimulating molecules that are constituents of medicinal mushrooms, capable of activating many types of immune cells and inducing cytokine responses.<sup>[2,3,4]</sup> In addition to their antitumor, immunomodulating effects, some other well-known actions of medicinal mushrooms include antioxidant activity, free radical scavenging, cardio protective, antihypercholesterolemic, antiviral, antibacterial, antiparasitic, antifungal, detoxifying, hepatoprotective, neuroprotective (dementia and Alzheimer’s disease), and antidiabetic effects.<sup>[1]</sup>

## SCIENTIFIC BACKGROUND AND CLINICAL EVIDENCE

### *Immunomodulatory and adaptogenic effects*

Diseases associated with immune dysfunction include cancer, chronic fatigue syndrome, AIDS/HIV, hepatitis, and autoimmune conditions. Mushroom polysaccharides trigger many immune cells involved in the maintenance of homeostasis and messengers inducing complement and acute phase responses.<sup>[5,6]</sup> Some of the specific immunomodulatory effects of  $\beta$ -glucan-rich mushroom extracts include enhancing natural killer (NK) cell activity, increasing leukocytes and neutrophils, increasing the antimicrobial activity of monocytes and neutrophils, improving the functional activity of macrophages by inducing nitric oxide production, stimulating proliferation of monocytes and macrophages, as well as pro-inflammatory cytokines such as TNF- $\alpha$ , IL-2, IFN- $\gamma$ , and NF $\kappa$ B-like nuclear transcription factor.<sup>[6]</sup> Mushroom polysaccharides act as immune enhancers in immunocompromised patients, particularly during chemotherapy. For instance, lentinan, a  $\beta$ -(1, 3)-D-glucan isolated from shiitake fruiting body stimulates antibody production and triggers the immune system to attack cancer cells and virus-infected cells.<sup>[7]</sup>





### **Anticancer effects**

One of the most prominent benefits of mycotherapy is its application in cancer treatment during surgery, chemotherapy, and radiotherapy to support immune function, as well as serving an important role in preventing recurrence.<sup>[1]</sup> Medicinal mushrooms are useful for the treatment of a variety of cancers such as breast, lung, cervical, liver, bladder, stomach, and leukemia.<sup>[1,8]</sup> *Coriolus versicolor* has been especially well studied in various cancers. Preclinical evidence and clinical research in humans provides a robust basis for the anti-cancer effects of medicinal mushrooms.<sup>[1]</sup>

### **Neuroprotection and neuroregenerative effects**

Medicinal mushroom extracts have been reported to confer neurological health benefits and exert neuroprotective effects. The triterpene compounds and polysaccharides are thought to be responsible for these effects. In particular, the neurological effects of *Ganoderma lucidum* and *Heridium erinaceus* have been well-documented.<sup>[8,9]</sup> Although more research is needed, evidence suggests that medicinal mushrooms could prove to be a valuable therapeutic option for the treatment of neurodegenerative diseases including Alzheimer's disease and other types of dementia.

### **Fatigue and stress**

Medicinal mushrooms, especially Cordyceps (*Ophiocordyceps sinensis*), have traditionally been used for both athletic enhancement and health promotion. Research has shown that Cordyceps, with or without exercise, improves exercise endurance and alleviates fatigue and stress by activating skeletal muscle metabolic regulators and a coordinated antioxidant response.<sup>[11]</sup>

### **Antioxidants**

Medicinal mushroom extracts contain a variety of polyphenols that are known to exert antioxidant activities due to their free radical scavenging ability.<sup>[1]</sup>

### **Antiviral and antibacterial activity**

Medicinal mushroom extracts exhibit antiviral activities against several viruses including herpes simplex virus (HSV), human influenza virus type A & B, hepatitis B, C, & D, human immunodeficiency virus (HIV), and Epstein-Barr virus (EBV). Medicinal mushroom extracts can also be used for their antibacterial activity, especially in the management of *Helicobacter pylori* infection.

# HOW ARE NFH MUSHROOMS DIFFERENT?





Nutritional Fundamentals for Health (NFH) offers a series of the highest quality, evidence-based medicinal mushroom products that have been meticulously hot-water extracted followed by ethanol extraction and formulated to maximize clinical efficacy.

### Our medicinal mushroom products:

**Contain no:** Gluten, soy, wheat, corn, eggs, dairy, yeast, citrus, preservatives, artificial flavour or colour, starch, or sugar.

Are grown in specific wood types native to the mushroom species to ensure highest yield of polysaccharides and  $\beta$ -glucan content. We do not grow our mushrooms on grains or grain-based growth medium.

Products	Native Cultivation Substrate
Agaricus Bisporous SAP	Straw, Wheat grass and Cottonseed hulls
Chaga SAP	Birch
Cordyceps SAP	Liquid fermentation culture*
Coriolus Versicolor SAP	Camphor tree, Holly, White Birch
Hericium Erinaceus SAP	Oak
Maitake SAP	Beech, Oak
Reishi SAP	Basswood
Shiitake SAP	Pine, Cedar, Cypress
Mushroom Complex SAP	Combination of Reishi, Maitake, Coriolus versicolor and Shiitake

\*White button mushroom extract in Agaricus bisporus SAP derived from a combination of the fruiting body and mycelia of the mushrooms. In some instances, fruiting bodies may contain higher levels of heavy metals and hence the mycelium is also included for extraction. Cordyceps extract in Cordyceps SAP is derived from the mycelia of the mushrooms cultured by fermentation. Fruiting bodies of these mushrooms contain higher levels of heavy metals and hence the mycelium is chosen for extraction.



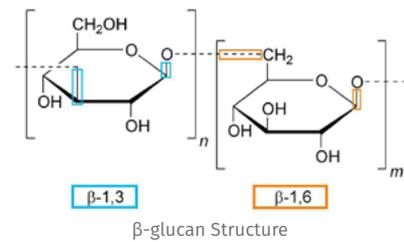
Original image from NFH maitake mushroom supplier farm

# NFH - Leading Product Quality Assurance

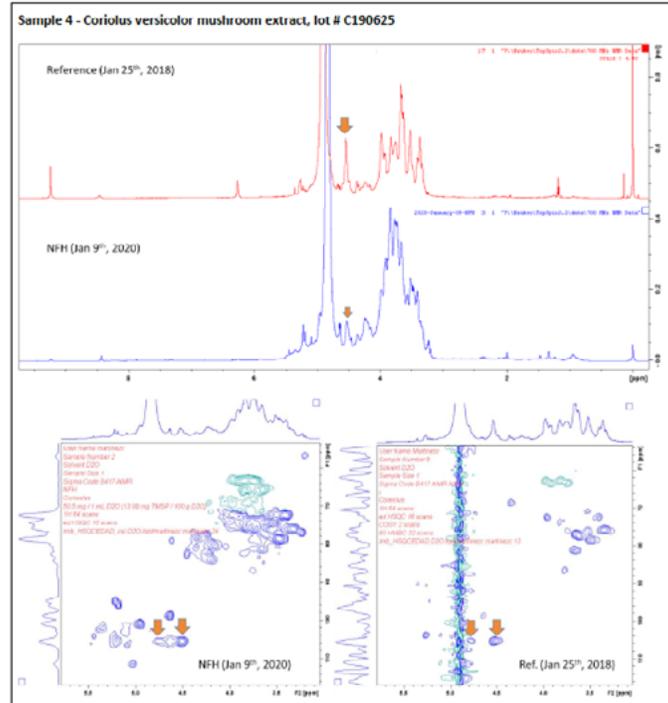
All NFH mushroom products are hot-water extracted and ethanol extracted, yielding high polysaccharide and  $\beta$ -glucan content. Hot-water extraction enables the release of the bioactive polysaccharide (structurally intact) and hot-ethanol extraction is used as a second step to release non-water soluble constituents such as triterpenes and sterols that are then added to the hot-water extracted component. This dual extraction process ensures to derive a full spectrum extract of the medicinal mushroom.



NFH strives to maximize the clinical benefits of its evidence-based products by setting the standard in raw material and finished product quality excellence. All product-related testing is conducted in a third-party ISO 17025 certified laboratory – one of the most advanced laboratories in Canada. All raw materials that enter the facility are tested three times: 1) upon entering the facility, 2) during processing, and 3) in the finished product stage.



**NMR spectra of Coriolus Versicolor SAP**



The peak corresponding to the authenticated reference indicated by an arrow in the graph clearly validates the presence of *beta*-glucan component specific to Coriolus mushroom in Coriolus versicolor SAP.





NFH utilizes the analytical expertise of the National Research Council of Canada (NRC) to apply an advanced testing method using Nuclear Magnetic Resonance (NMR) spectroscopy. The analysis, conducted at the NRC, provides valuable information on the polysaccharide and  $\beta$ -glucan content specific to each medicinal mushroom in order to allow NFH to ensure that the mushrooms are grown on specific wood sources and not on any other growth medium and are free of adulterants. In addition, NFH has developed an in-house test method using ultra high-performance liquid chromatography coupled to a quadrupole mass spectrometer (UPLC-MS/MS) based on a special enzymatic extraction process to corroborate the results from the NMR test.

Our uncompromising passion towards qualitative and quantitative assessment of mushroom product quality ensures maximum therapeutic benefits.

NFH is committed to the highest standards of excellence in laboratory quality assurance and good manufacturing practices (GMPs). Each of NFH's sophisticated evidence-based products is formulated and manufactured based on the "Tripod of Excellence", NFH's comprehensive commitment to providing healthcare professionals with research-based, content-guaranteed, and contaminant-free products with every lot number.



All NFH Medicinal Mushroom products are manufactured in-house at our state-of-the-art facility without outsourcing. NFH products exceed the strict GMP standards established by Health Canada's Natural Health Products Directorate (NHPD) regulations and are in accordance with standards set by the US Food and Drug Administration (FDA).

# Clinical Applications of NFH Medicinal Mushrooms

## GENERAL CONSIDERATIONS FOR MUSHROOM SUPPLEMENTATION

There is evidence of synergism with medicinal mushrooms and their therapeutic potential may be enhanced by prescribing them in pairs and switching mushroom products every 3-4 months to maintain optimal response to their immune-enhancing effects. Each mushroom has a unique polysaccharide content and particular health benefit. The choice of mushrooms depends upon what symptoms/conditions are present.

The following table provides an overview of the various health benefits and applications of NFH medicinal mushrooms

	Agaricus bisporus	Chaga	Cordyceps	Coriolus versicolor	Hericium erinaceus	Maitake	Reishi	Shiitake	Mushroom complex*
<b>Immunity and overall health</b>									
Immune support	✓	✓	✓	✓		✓	✓	✓	✓
Immunomodulation	✓	✓		✓			✓		✓
Hay fever						✓			
Allergy management							✓		
Adaptogenic							✓		✓
Antiviral support		✓				✓			
HSV		✓		✓					
HPV				✓					
Antioxidant	✓			✓					
Inflammation	✓						✓		
Anti-aging							✓	✓	
<b>Gastrointestinal health</b>									
Prebiotic				✓					
Gastric mucosal protection					✓				
Ulcer (H.Pylori)					✓				
<b>Cancer</b>									
Breast cancer	✓			✓		✓	✓		✓
Prostate cancer	✓								
Ovarian cancer	✓						✓		
Colon cancer	✓			✓		✓	✓	✓	✓
Melanoma		✓						✓	
Leukemia				✓			✓		
Esophaegal cancer				✓					
Lung cancer			✓	✓			✓		✓
Gastric cancer				✓				✓	
Brain cancer					✓				
Nervous system cancer					✓				
Chemo and radiation therapy support				✓		✓	✓	✓	✓
Tumour growth							✓		✓

	Agaricus bisporus	Chaga	Cordyceps	Coriolus versicolor	Hericium erinaceus	Maitake	Reishi	Shiitake	Mushroom complex*
<b>Nervous system health</b>									
Nerve repair and myelination					✓				
Dementia					✓				
Multiple sclerosis					✓				
Neuropathic pain					✓				
Cognitive health	✓								
Motor function	✓								
<b>Metabolic health</b>									
Cardiovascular health	✓	✓							
Hypertension						✓			
Glucose metabolism	✓	✓	✓			✓	✓		
Lipid metabolism	✓	✓				✓		✓	
Homocysteine levels								✓	
Weight management						✓		✓	
<b>Energy and vitality</b>									
Fatigue and stress			✓			✓	✓		✓
Energy							✓	✓	✓
Adrenal health			✓						
<b>Reproductive health</b>									
Reproductive health - male			✓					✓	
Reproductive health - female						✓		✓	
Breast health						✓			
Cervical dysplasia				✓					
<b>Detox</b>									
Kidney disease (proteinuria, nephritis)			✓						
Liver health			✓				✓		
Hepatitis						✓			
<b>Respiratory Health</b>									
Lung disorders (asthma, chronic bronchitis)			✓						
Altitude sickness							✓		



\* Mushroom complex is a combination of Reishi, Maitake, Shiitake, and Coriolus versicolor

# Our Mushroom Line



90 capsules  
Code: 1401  
NPN: 80123410



60 capsules  
Code: 1107  
NPN: 80060087

## Agaricus Bisporus SAP

*Agaricus bisporus* (white button mushroom) contains lectins that exert various beneficial effects including improvement in chemotherapeutic efficacy, inhibition of colon cancer cell proliferation, and enhancement of cellular antioxidant defense mechanisms. *Agaricus bisporus* is a potent aromatase inhibitor, increases natural killer cell activity, and promotes adaptive immune responses in breast and prostate cancer.

### Each capsule contains:

*Agaricus bisporus* extract (5:1),  
30% polysaccharides providing 15%  $\beta$ -glucans . . . . . 667 mg  
3 capsules provide an equivalent to 10 g of dried mushroom.

**Mushroom part:** Mycelium

**Directions for use: Adults:** Take 3 capsules daily or as directed by your healthcare practitioner.

### Indications:

- Adjunctive support in breast, prostate, ovarian, and colon cancer therapy
- Helps manage cholesterol, type 2 diabetes, and other CVD risk factors
- Mitigates age-related cognitive decline and motor function
- Supports healthy immunomodulation
- Source of antioxidants
- Promotes healthy inflammatory responses

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you are pregnant or breast-feeding, or if you have diabetes.

## Chaga SAP

Chaga (*Inonotus obliquus*) is nutrient-dense, concentrated with polysaccharides, flavonoids, betulinic acid, polyphenols, minerals, enzymes, and vitamins. Chaga is known to exert antitumour, immunomodulating, gene-protective, antioxidant, and antiseptic activities. Chaga is traditionally used for cancer treatment although human trials are lacking for this indication.

### Each vegetable capsule contains:

Chaga (*Inonotus obliquus*) 8:1 extract, equivalent to 2.8 g of dried mushroom, 40% polysaccharides . . . . . 350 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 1 capsule daily or as directed by your healthcare practitioner.

### Indications:

- Supports healthy immunomodulation
- Provides anticancer activity against melanoma cells
- Exerts antiviral activity (HIV-1, influenza A and B, early stages of HSV)
- Fosters healthy glucose and lipid metabolism and cardiovascular function

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you have diabetes, a medical condition, or an autoimmune condition; or if you are taking prescription medication, anticoagulant medications, or immunosuppressants.

**Other cautions:** Chaga has high oxalate concentration; use with caution in patients with poor renal function.





60 capsules  
Code: 1098  
NPN: 80049034



60 capsules  
Code: 1093  
NPN: 80054938

## Cordyceps SAP

Cordyceps contains active ingredients including polysaccharides, lipids, cordycepin, and 3-deoxyadenosine. Cordyceps provides a source of antioxidants to protect against oxidative damage.

### Each vegetable capsule contains:

Cordyceps (*Paecilomyces hepiali*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides providing 20%  $\beta$ -glucans . . . . 500 mg

**Mushroom part:** Cultured mycelia

**Directions for use: Adults:** Take 1 capsule daily with food or as directed by your healthcare practitioner.

**Specific dosing:** 3g/day (hepatoprotective); 3.5g/day (kidney protective); 3g/day (diabetes).

### Indications:

- Supports immune function
- Improves resistance to fatigue and stress
- Diabetes management
- Maintains adrenal cortex health
- Alleviates chronic kidney disease, proteinuria, and nephritis
- Hepatoprotective
- Improves lung disorders including asthma (requires ongoing use) and chronic bronchitis
- Promotes sexual health in men

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you are pregnant or breastfeeding or if you have diabetes.

**Other caution:** May have immunosuppressant effects; MAO inhibitor.



## Coriolus Versicolor SAP

Coriolus (*Trametes versicolor*) or “Turkey tail” contains the polysaccharide-protein complexes polysaccharide K (PSK) and polysaccharide peptide (PSP). PSK boosts immune cell production, alleviates side effects of chemotherapy/radiation, and enhances tumor infiltration by dendritic and cytotoxic cells. PSP boosts immune status and exerts antitumor effects when used as an adjunct to chemotherapy.

### Each vegetable capsule contains:

Coriolus versicolor (*Trametes versicolor*) 8:1 extract, equivalent to 4 g of dried mushroom, 55% polysaccharides providing 50%  $\beta$ -glucans . . . . . 500 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 1 capsule three times daily or as directed by your healthcare practitioner. To avoid digestive upset, take with food/a meal.

**General dosage:** 1000-4000 mg daily containing a minimum of 20-36% polysaccharide content.

### Indications:

- Supports chemotherapy and radiation therapy
- Supports leukemia treatment
- Helpful during treatment of and recovery from a variety (esophageal, lung, gastric, colon, and especially breast cancer)
- Helps inactivate HSV and HPV infections
- Improves cervical dysplasia
- Supports healthy immune function
- Prebiotic for intestinal health
- Source of antioxidants

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you are pregnant or breastfeeding.





60 capsules  
Code: 1095  
NPN: 80049550



60 capsules  
Code : 1097  
NPN : 80047213

## Hericium Erinaceus SAP

*Hericium erinaceus* (Lion's mane) is called “nature’s nutrient for the neurons” because of its ability to stimulate production of nerve growth factor (NGF).<sup>[1]</sup> *Hericium erinaceus* provides a source of antioxidants and supports healthy immune function.

### Each vegetable capsule contains:

*Hericium erinaceus* (Lion's mane) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides providing 35% β-glucans . . . . .500 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 1 capsule daily with food, to avoid digestive upset, or as directed by your healthcare practitioner. **Immune support:** Use for a minimum of 4 weeks to see beneficial effects.

### Indications:

- Helps support treatment of brain and other nervous system cancers
- Supports nerve repair and myelination
- Improves symptoms of dementia, cognitive decline, and multiple sclerosis
- Mitigates neuropathic pain
- Helps protect gastric mucosa
- Helps healing of ulcers and alleviates gastritis (inhibits growth of *H. pylori*)

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you are pregnant or breastfeeding.

**Other Cautions:** Long term use (>3 months) can cause dizziness, skin irritation, GI upset, nausea, and diarrhea, in which case discontinue use.

## Maitake SAP

Maitake (*Grifola frondosa*) is also known as the “King of Mushrooms”. Maitake’s medicinal use has been well-established in the treatment of HIV/AIDS, hepatitis, diabetes, hypertension, hyperlipidemia, weight management, polycystic ovary syndrome (PCOS), cancers, and in chemotherapy support. Maitake promotes health through immunomodulation.

### Each vegetable capsule contains:

Maitake (*Grifola frondosa*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides providing 40% β-glucans . . . . .500 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 2-3 capsules daily with food or as directed by your healthcare practitioner.

**Specific dosage:** 1-1.5 g/day for type 2 diabetes.

### Indications

- Helps support health during chemotherapy
- Induces ovulation in patients with PCOS
- Improves chronic fatigue syndrome
- Supports breast health
- Helps in the treatment of HIV/AIDS
- Helps in management of hepatitis and relieves symptoms of hay fever
- Helps manage diabetes, hypertension, hyperlipidemia, and weight

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you suffer from an autoimmune disorder (e.g. Crohn’s disease, myasthenia gravis, multiple sclerosis, rheumatoid arthritis, systemic lupus erythematosus, or HIV/AIDS), if you are taking immunosuppressants, or if you have diabetes.





120 capsules  
Code: 1113  
  
60 capsules  
Code: 1096  
  
NPN: 80046338



60 capsules  
Code: 1094  
NPN: 80047449

## Reishi SAP

Reishi (*Ganoderma lucidum*), also known as “lingzhi” and the “King of Herbs” has a well-documented use for energy, stress, and immune function support. Reishi is particularly known for its immune modulating effects.

### Each vegetable capsule contains:

Reishi (*Ganoderma lucidum*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides providing 30%  $\beta$ -glucans .....500 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 1-2 capsules daily with food, to avoid digestive upset, or as directed by your healthcare practitioner. **Immune support:** Use for a minimum of 4 weeks to see beneficial effects.

### Indications:

- Improves energy and resistance to stress and fatigue
- Supports health during chemotherapy or radiation therapy
- Reduces resistance to chemotherapy, reduces tumor invasiveness
- Adaptogenic
- Anti-inflammatory (suppresses TNF- $\alpha$ , IL-6, NO, and PGE2 and inhibits histamine release)
- Allergy management (supplement for 2 months before and during allergy season)
- Helps manage altitude sickness
- Diabetes management
- Hepatoprotective and may improve fatty liver

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you suffer from an immune system disorder or if you are taking immunosuppressants.

**Other cautions:** Long term use (>3 months) can cause dizziness, skin irritation, GI upset, nausea, and diarrhea, in which case discontinue use.



## Shiitake SAP

Shiitake (*Lentinula edodes*) is an excellent source of antioxidants and supports immune function, cardiovascular health, and management of cancers. Shiitake is one of the most consumed mushrooms in the world. Shiitake mycelia is a constituent of active hexose correlated compound (AHCC),  $\alpha$ -glucans known to stimulate immune cells. Shiitake fruiting body contains ergothioneine (antioxidant, anti-inflammatory) and lentinan (antitumour polysaccharide).

### Each vegetable capsule contains:

Shiitake (*Lentinula edodes*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides providing 25%  $\beta$ -glucans .....500 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 1 capsule three times daily with food or as directed by your healthcare practitioner

### Indications:

- Cancer treatment, especially melanoma, gastric, and colon cancers
- Helps prevent resistance to chemotherapy
- Enhances quality of life and immune function for patients undergoing chemotherapy
- Lowers homocysteine and cholesterol levels
- Improves metabolism of fats
- Weight management
- Enhances vigor, sexuality, energy
- Exerts anti-aging properties

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you are taking blood thinners (anticoagulants) or if you have diabetes.





90 capsules  
Code: 1110  
NPN: 80059290

## Mushroom Complex SAP

Synergistic blend of four hot water-extracted mushrooms: Reishi, Maitake, Coriolus versicolor and Shiitake. Mushroom Complex SAP provides a rich source of antioxidants.

### Each vegetable capsule contains:

Reishi (*Ganoderma lucidum*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides, 30%  $\beta$ -glucans .....100 mg  
Maitake (*Grifola frondosa*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides, 40%  $\beta$ -glucans .....100 mg  
Shiitake (*Lentinula edodes*) 8:1 extract, equivalent to 4 g of dried mushroom, 40% polysaccharides, 25%  $\beta$ -glucans .....100 mg  
Coriolus versicolor (*Trametes versicolor*) 8:1 extract, equivalent to 4 g of dried mushroom, 55% polysaccharides, 50%  $\beta$ -glucans .....100 mg

**Mushroom part:** Fruiting body

**Directions for use: Adults:** Take 3 capsules daily with food or as directed by your healthcare practitioner.

### Indications:

- Source of mushroom polysaccharides with immunomodulating properties to support both innate and humoral immune function, especially during flu season
- Works as an adaptogen to help promote energy production and resistance to stress
- Immune support in patients with cancer

**Cautions and warnings:** Consult a healthcare practitioner prior to use if you have diabetes or if you are pregnant or breastfeeding.

## REFERENCES

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**Note:** For a complete reference list for the scientific research to support each medicinal mushroom contained in this booklet, please refer to the respective NFH product monograph.



The NFH series of medicinal mushroom products is meticulously formulated by internationally renowned experts and clinical practitioners Michael Traub, ND, FABNO and Neil McKinney, ND. We are privileged to have them as our advisory board members.



**Dr Neil McKinney,  
BSC, ND, NATUROPATHIC  
PHYSICIAN (NON-PRACTICING)**

Dr McKinney graduated from Simon Fraser University with a degree in Biosciences and had a career in biophysical (radiation) cancer research. Studied kinesiology at the University of Waterloo. Graduated as a Doctor of Naturopathic Medicine from National College of Naturopathic Medicine in 1985. Concurrently trained 3 years in TCM at the Oregon College of Oriental Medicine. Dr McKinney has had many teaching roles, from lab instructor in microbiology at University of Victoria, and National College of Naturopathic Medicine (now NUNM), at schools of traditional Chinese medicine, massage therapy, and finally as a professor at Boucher Institute of Naturopathic Medicine (BINM). Served many roles in the regulation and advancement of the profession, including Registrar of the BC College of Naturopathic Physicians [www.cnpbc.bc.ca](http://www.cnpbc.bc.ca) and accreditation evaluator for the Council on Naturopathic Medical Education [www.cnme.org](http://www.cnme.org) Founded the BC Naturopathic Association [www.bcna.ca](http://www.bcna.ca) and the Boucher Institute of Naturopathic Medicine [www.binm.org](http://www.binm.org) Founding professor of Naturopathic Oncology, now retired. Author of several editions of textbooks of naturopathic oncology, clinical handbooks, and research review articles. Mentors and lectures to doctors internationally; contributes to publication for professionals and the public. He has received a number of awards for contributions to advancing the scope and standards of the naturopathic profession.

Dr McKinney's skills include nutrition as medicine, traditional Chinese medicine, botanical medicine, homeopathy, and therapeutic injections, but has now moved to non-practicing status. Dr McKinney had prescribing authority for common pharmaceutical medicines used in general practice and cancer care. Now retired from decades of practice with a focus on integrative oncology, he is actively engaged in cancer research, professional education, and publishing.



**Dr Michael Traub,  
ND, DHANP, CCH, FABNO**

Dr Michael Traub obtained his undergraduate degree in biological sciences from the University of California, Irvine in 1976 where he conducted neurobiology research of learning and memory for Professor James L. McGaugh. He graduated from the National College of Naturopathic Medicine in 1981 and completed a residency there in Family Practice and Homeopathy. He became board-certified in homeopathic medicine by the Homeopathic Academy of Naturopathic Physicians in 1989. Dr Traub was recognized for his many years of service to the American Association of Naturopathic Physicians, including President from 2001-2003, when he was honored with the 2006 Physician of the Year Award. His father was a dermatologist and this inspired Dr Traub to undertake extra study in this subject. He has taught dermatology at five of the seven accredited naturopathic medical schools in North America and is the author of "Essentials of Dermatologic Diagnosis and Integrative Therapeutics." He is a recognized authority in the naturopathic profession on dermatology.

He serves on the scientific advisory boards of several natural product companies and has been actively engaged in clinical research for most of his career. Dr Traub has been medical director of Lokahi Health Center in Kailua Kona, Hawaii for the past 37 years. He is also board-certified in naturopathic oncology by the American Board of Naturopathic Oncology.



# Who We Are

Bridging the gap between nutraceuticals and evidence-based medicine

**NFH** is a Canadian nutraceutical manufacturer and developer devoted to the integration and application of nutraceutical science in clinical practice. We produce herbal, vitamin, mineral, and probiotic formulations of the highest quality for exclusive use by licensed healthcare practitioners. NFH is committed to the highest standards of excellence in laboratory quality assurance and good manufacturing practices.

A third-party laboratory validates identity, potency, and purity for every raw material and finished product lot number – we do not skip lot test.

Formulated under the guidance of our internationally-renowned **Scientific Advisory Panel** and **Medical Consultancy Group**, NFH professional nutraceutical products guarantee optimal efficacy and absolute patient safety.

**For more information about our mushroom line or samples,  
visit our website, or contact your territory manager.**

[nfh.ca](http://nfh.ca) | [nfhus.com](http://nfhus.com)

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