

Chaga Mushrooms

Chaga, (*Inonotus obliquus*), is a highly nutritious mushroom that grows on birch trees in below freezing temperatures. Chaga grows in a frigid primeval organic environment clear of any nuclear waste, contaminants or other toxins making Chaga mushrooms safe for chronic consumption and highly effective nutrient source for animal and human wellness and longevity.

Chaga is the dense black mass (25-40 cm large) that can be seen on the outside of birch trees. It is a dense sterile mass of mycelia, with decayed bits of birch tissue incorporated. Chaga are quite rare and difficult to harvest. When chopped from the tree the interior has a rusty yellow-brown color, somewhat granular in appearance, and is often mottled with whitish or cream-colored veins. The hard, deeply cracked black outside of the Chaga is called the sclerotium. Mature Chaga sclerotia are found on trees over 40 years of age. The estimated time period between the times of infection of the tree by the fungus to the maturity of the Chaga mushroom is around 20 years. The Chaga can be harvested five years post maturity. After harvesting, Chaga can regrow to harvestable size again in three to ten years, and this can be repeated until the tree dies.

Beneficial Health Properties of Chaga Mushrooms

Chaga Mushrooms are adaptogens, high in polysaccharides, alkalines, phytonutrients, flavanoids, vitamins, phenols, enzymes, amino acids, organic acids, beta glucan, minerals - calcium, zinc, magnesium, chromium, over 215 important trace minerals and microelements. Chaga is the most potent adaptogen known, highly effective in the fight against premature aging and the prevention of diseases in animals and humans.

Chaga, as an adaptogen, promotes homeostasis in animals and humans which helps the animal and human body and mind achieve and maintain its natural balance with beneficial effects on the nervous system and immune system, the gastrointestinal tract, the cardiovascular system and the endocrine system. By supporting the animal and human body and mind, adaptogens help cope with environmental stress and exposure to infectious organisms by preventing disease and supporting wellness and longevity.

Throughout the past 50 years over 1,600 scientific animal and human studies have demonstrated and proven the pharmacological effects of Chaga on the immune system, hormonal, central nervous system, adrenal, respiratory, digestive and cardiovascular systems. Chaga are classified as Basidiomycetes and Chaga is far and above all other Basidiomycetes containing the highest value ever recorded in the ORAC Scale, over 400 times more potent in antioxidants than any other nutritional foods, plants, herbs, oils and supplement products. Chaga has been researched as an effective therapeutic for anti-aging, wellness, longevity, cancers, diabetes, immunity, longevity, increasing vital capacity and strengthening the immune system as an immune amphoteric, an immunomodulator.

Chaga's most potent ingredients are beta glucans and superoxide dismutase, (SOD), and enzyme that controls oxidative stress and cellular damage, especially the toxicity of a roaming free radical known as singlet oxygen species. Singlet oxygen species is a type of oxygen that is responsible for oxidizing and damaging human and animal cells, tissues and organs, resulting in metabolic rust, advanced aging. SOD blocks this damage by quenching the singlet oxygen free radical species.

Chaga has been referred to as "Gift from God", "Mushroom of Immortality", "Diamond of the Forest" and "King of Plants". Immune D is also formulated with Cordyceps Prime as a non-primary active, adding additional vitamin and fatty acid nutrient benefits to the efficacy of Immune-D.

Little Big Shots contract manufacturing partners utilize state-of the art extraction and processing techniques to concentrate the active components from the Chaga fungal mass. Chaga is produced to the highest level GMP standards utilizing a proprietary process that is standardized to contain guaranteed levels and analysis of the active compounds.

General Health and Wellness

- Protects & re-generates cells and cellular structures
- Allows for better assimilation and absorption of dietary vitamins
- Strengthens and supports the immune system
- Boosts endurance and vital capacity
- Maintains healthy skin and coat
- Helps digestion and digestive absorption of nutrients
- Helps maintain a healthy heart, circulatory and nervous system and brain

Detoxifying

- Eliminates toxins – blocks damaging free radical singlet oxygen species
- Boosts energy and performance
- Works as an anti-oxidant

Long-Term

- Can add life years and quality of life
- Make vital organs more efficient healthy
- Slow down the aging process

Nutritional Composition of Chaga Mushrooms

- Potent antioxidants
- Potent source of superoxide dismutase (SOD)
- More than 215 phytonutrients, glyconutrients including: Betulinic Acid, Polysaccharides, Beta Glucans, Tripeptides, Triterpenes including Lanosterol-type Triterpenes, Sterols, Saponins, Inotodiols, Trametenolic Acid and Melanin.
- Significant source of riboflavin and niacin
- Vitamins B and D, flavonoids, phenols, copper, calcium, potassium, manganese, zinc iron and enzymes
- One of nature's richest sources of the minerals rubidium, potassium, cesium and germanium; (maintains body alkalinity). High in Amino Acids, Dietary Fiber, Ionized Trace Minerals (Copper, Selenium, Zinc, Manganese, Iron), Ionized Essential minerals (Magnesium, Potassium, Calcium, Chloride, Sodium, Phosphorus), Vitamin B1 (Thiamine), B2 (Riboflavin), B3 (Niacin), Vitamin D2 (Ergosterol), which is not found in vegetables.
- Great source of pantothenic acid
- Vital source of plant based sterols
- Betulin and Betulinic Acid

Chaga Mushroom Health Benefits

Chaga improves and stimulates the immune response, regulates glucose metabolism – high in beta glucan, reduces inflammation, is a potent antioxidant that inhibits mutagenic cell growth.



Chaga is rich in Phytonutrients

Phytonutrients may serve as antioxidants, enhance immune response, enhance cell-to-cell communication, enhances metabolism, converts to vitamin A (beta-carotene is metabolized to vitamin A), repair DNA damage caused by environmental toxins and other toxic exposures and detoxify.

Chaga Mushrooms contain Glyconutrients; plant saccharides that provide support for the immune system. Glyconutrients play a key role in supporting animal and human immune systems by promoting effective cell-to-cell communication. Recent scientific research has shown that eight simple sugars (monosaccharides) combine with proteins and fats to create glycoforms that coat the surface of nearly every cell in the body and function as cellular recognition molecules that communicate the messages a body needs to function in health. These messages directly affect proper organ and system function including the immune and endocrine systems.

Chaga Mushroom Polysaccharides

Chaga polysaccharides act as carriers of other nutrients, delivering them to where they are needed most in the animal and human body to increase bio-availability to maintain optimum health and wellness.

Chaga contains Beta-Glucans

Chaga is a rich source of Beta-Glucans which performs immuno-modulating properties helping the body identify cancer cells as foreign.

Superoxide Dismutase in Chaga

Chaga mushrooms have the highest levels of Superoxide Dismutase (SOD) found in any natural food and is extremely high in antioxidants. Other foods like wheatgrass, broccoli and some cabbages also contain SOD but in much smaller amounts and are not preferable food sources for canines.

Immune Support

Chaga mushrooms are often used as an immune system modulator with demonstrated anti-inflammatory and anti-parasitic properties. Chaga is a unique polypore fungus that is also anti-viral, anti-fungal, anti-microbial and anti-Candida.

Triterpenoids and Sterols

Triterpenes immune and cardiovascular system strengthening properties increase the ability to resist disease, lower cholesterol levels and promote the destruction of foreign abnormal cells. The immune-modulating properties of Lanosterol-linked triterpenes have been validated by Dr. Kirsti Kahlos, School of Pharmacology, University of Helsinki, Finland. Dr. Kahlos' team conducted studies validating the immuno-modulating impact of Lanosterol-linked triterpenes effective as a flu-vaccination and for anti-tumor applications.

Betulinic Acid (phytosterol)

Chaga is rich in Betulinic Acid a phytosterol which is naturally present in the bark of the Birch tree. Betulin from the Birch tree is converted into Betulinic Acid by the Chaga mushroom making it soluble to ingest into the bloodstream.



Ergosterol (Vitamin-D2)

One of three vitamins able to be absorbed by the skin and coat and the only one that the body is able to manufacture (when exposed to ultraviolet light). This vitamin is necessary for the building of new skin cells, as well as bones, teeth, and hair.

Saponins

Saponins have been shown to have anti-inflammatory and antioxidant activity.

Melanin

The Melanin produced by the Chaga mushroom demonstrates high antioxidant and genoprotective effects. Melanin enhances the appearance of hair and coat, skin and eyes, and restores a more youthful appearance.

CordycepsPrime Nutrition Facts (per 100 grams)	
Ash	≥ 8.0%
Carbohydrate	46.18%
Protein (% Nitrogen x 6.25)	32.42%
Fat	13.7%
Calorie (total)	438 mg/100 g
Calorie (from fat)	123/100 g
Cholesterol	300 mg/100 g
Total dietary fiber	29.30%
Vitamins	
Vitamin A	228 IU/100 g
Beta-carotene	228 IU/100 g
Vitamin C	22.80 mg/100 g
Vitamin E	32.4 mg/100 g
Minerals	
Calcium	178 mg/100 g
Chromium	3.12 ppm
Copper	8.05 ppm
Iron	27.10 mg/100 g
Manganese	47.1 ppm
Niccolum	2.18 ppm
Potassium	1.70 mg/100 g
Sodium	9.04 mg/100 g
Zinc	852 ppm
Amino acids Mg/g	
Alanine	22.63 mg
Valine	17.08 mg
Tyrosine	11.09 mg
L-Glutamic acid	38.99 mg
Aspartic acid	40.50 mg
L-Arginine	15.14 mg

ChagaPrime™ Nutrition Facts (per 100 grams)	
Ash	≤8.0%
Total Polysaccharide	≥25.0%
Protein	2.31 g/100 g
Minerals Mg/100g	
Potassium	2099 mg/100 g
Iron	1089 mg/100 g
Calcium	687 mg/100 g
Zinc	499 mg/100g
Sodium	189 mg/100 g
Magnesium	185 mg/100 g
Manganese	175 mg/100 g
Selenium	82 mg/100 g
Amino acids Mg/g	
Aspartic acid	7.94 mg
Serine	5.04 mg
Glutamic acid	3.79 mg
Glycine	4.46 mg
Alanine	8.02 mg
Cysteine	1.59 mg
Arginine	1.64 mg
Histidine	0.78 mg
Isoleucine	2.38 mg
Leucine	3.70 mg
Phenylalanine	2.35 mg
Lysine	0.91 mg
Treonine	4.46 mg
Valine	3.05 mg