

Super Snouts Organic Turkey Tail Mushroom Powder (available in 75g and 150g)

Turkey Tail is the most widely researched of all medicinal mushrooms in the areas of cancer, immune system recovery, and overall health. Numerous medicinal compounds have been isolated from turkey tail and several medical research studies have shown turkey tail to provide a wide range of benefits in human and canine participants.

Turkey Tail Mushrooms are known by three different scientific names: *Trametes versicolor*, *Coriolus versicolor*, and *Polyporus versicolor*. All three Latin names for Turkey Tail mushrooms refer to the same common medicinal mushroom. Turkey tail gets its name from its vibrant rings of color similar to the tail feathers of a turkey.

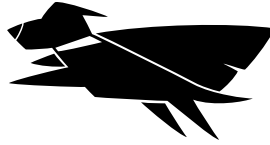
Like many medicinal mushrooms, Turkey Tail contains various and unique profiles of polysaccharides that have a wide variety of functions in nature. Some polysaccharides are used for storing energy, some for sending cellular messages, and others for providing support to cells and tissues.

PSK can have a stimulating effect on the immune system, encouraging the body to produce more immune cells that attack foreign and abnormal cells therefore, suppressing the growth of tumors. PSK is deemed to be very well tolerated in human trials with very few side effects. In Japan, PSK is an approved mushroom product used to treat cancer.

In traditional western herbal medicine, Turkey Tail is used for its benefits to the immune system. It is specifically useful in post viral fatigue and for those who are prone to infections. It can be taken regularly for balanced immune function support.

This paper will explore its uses and information on the species, including links to scientific studies done on humans and animals and published by the National Institute of Health. It is intended as a resource to inform and assist understanding and education. It does not provide formal guidelines, validate any health claims or recommendations for making health care decisions for you or your pet.

Uses and Potential Benefits



Immune System Support / Immunomodulation

Turkey Tail mushrooms offer immune system support. They are rich in beta glucans PSP (Polysaccharopeptide) and PSK (Polysaccharide-K), polysaccharides which can support healthy small intestinal function to fight against bacteria and viruses. Test-tube studies have shown that PSP increases white blood cells that fight infection and boost immunity (1). PSK stimulates dendritic cells that promote immunity to toxins and regulate the immune response. Due to their ability to naturally strengthen the immune system, PSP and PSK are commonly used as anticancer agents in conjunction with surgery, chemotherapy and/or radiation in countries like Japan and China (2).

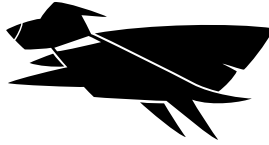
Antioxidants

Antioxidants are compounds that help inhibit, reduce damage or and protect cells caused by oxidative stress. Oxidative stress can result in free radicals that can lead to cell damage and chronic inflammation. Free radicals have been known to cause other serious conditions like certain cancers and heart disease. There are many foods that are rich in antioxidants including Turkey Tail which includes both phenols and flavonoids. Studies have uncovered over 30 different phenolic compounds in Turkey Tail mushrooms. Phenol and flavonoid antioxidants promote immune system health by reducing inflammation and stimulating the release of protective compounds.

It has been demonstrated many times by way of scientific research that turkey tail mushrooms may have anti tumor properties, thought to be related to its immune-boosting effects.

One test-tube study found that PSK (polysaccharide-K), found in Turkey Tail mushrooms, inhibited the growth and spread of human colon cancer cells (3).

Coriolus versicolor glucan (CVG), a type of polysaccharide found in turkey tail mushrooms may suppress certain tumors. A study in tumor-bearing mice found that daily treatment with CVG extracted from Turkey Tail mushrooms significantly reduced tumor size (4). Researchers attributed this development to enhanced immune response (5).



Another study demonstrated that daily treatment with turkey tail mushroom extract significantly slowed the spread of cancer cells in **dogs with hemangiosarcoma (6)**, a type of cancer that develops from the cells that normally create blood vessels (endothelial cells). The cause of hemangiosarcoma in most cases is unknown. However, we do know that sunlight can cause this cancer on the belly skin, inner thighs, eyelids and eyelid membranes (conjunctiva) of patients with pale/pink skin and thin fur who live in very sunny climates.

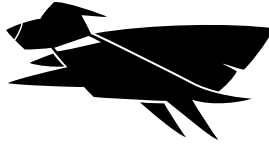
Fruiting Body and Mycelium Debate

Written by our grower who holds a Masters Degree in Mycology, Botany and Biology

There has been a lot of debate in pet-related publications lately about Fruiting Body vs. Mycelium in medicinal mushroom products. Most of this information is false or incorrect and is used by Chinese mushroom companies to sell their products in the US. We have talked with our grower in the pacific northwest about this topic and asked him to write a few paragraphs as an expert in three disciplines. He has been growing certified organic mushrooms for 30+ years and hold three Masters of Science degrees in Mycology, Botany and Biology.

"There are thousands of research papers on the healing aspects of both mycelium and fruiting body. Both mycelium and fruiting body contain 1,3-beta glucans which provide the immune benefits. Where they differ more is with the kinds of triterpenes they each contain. Triterpenes provide more of the adaptogenic properties: lower blood pressure, lower cholesterol, etc. Triterpenes also help with allergies and asthma. Mycelium is the actual living organism. In comparison to plants, let's say apples, the mycelium would be analogous to the tree. The fruiting body would be analogous to the apple. A fruiting body is just involved with spore production and dispersal. A fungus (mycelium) living in a log needs to produce a structure that rises up out of the log, so that it can drop spores in to the air for dispersal to other logs. A fruiting body is in a sense just a temporary structure that serves as a dispersal tower.

Similarly with the apple fruit, it is also just involved with reproduction and dispersal. Seeds are formed in the fruit, and the fruit attracts animals to aid in seed dispersal.



Using the word “mushroom” to describe just the fruiting body causes confusion. The word mushroom is actually part of the common name. For instance, if someone goes to the store to buy shiitake, they will frequently say, “I’m going to buy shiitake mushrooms”. As opposed to apples, no one would say, “I’m going to buy apple fruits”. Mushroom is also not a scientific term. The “plant parts” are referred to as either mycelium or fruiting body

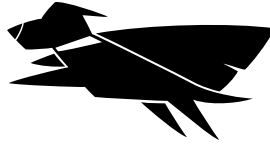
Mycelium begin to produce fruiting bodies when they are ready to produce spores. The mycelium that starts forming a fruiting body begins expressing differentiated genes that the vegetative mycelium doesn’t. So one thing to keep in mind is that fruiting bodies are actually mycelium also (just with different gene expression).

Now what’s interesting is that the mycelium growing vegetatively is producing one set of triterpenes, but the mycelium forming fruiting bodies is producing a different set of triterpenes. Both sets of triterpenes have beneficial properties. For instance, reishi is known to have over 140 different triterpenes.

The most well researched of all the medicinal mushrooms is turkey tail, and almost all of the research has only been conducted with mycelium. Two of the most famous Japanese mushroom products, PSK and PSP, are both turkey tail products made only from mycelium and are actually both officially recognized by Japan’s version of the FDA as anti-cancer treatments.

There has also been a lot of research on the mycelium of turkey tail, shiitake, reishi, chaga. Unfortunately, the distributors of Chinese products are pushing fruiting body really hard and making all sorts of misleading and incorrect statements about fruiting body vs. mycelium in an effort to promote their sales here in the U.S. Many distributors aren’t even located here in the U.S., but are selling through Canada or Finland and do no growing themselves but are just buying Chinese mushrooms and reselling them here.

In short, both fruiting body and mycelium have benefits that are provided by both and benefits that are only provided by one or the other. Because of this, I have always wanted to produce our mushroom powders so that they contain both the mycelium and the fruiting body when possible and therefore provide all the constituents that the mushroom has to offer. Why would you want to miss out on any of them?”



Our Turkey Tail, and all medicinal mushrooms, are processed with proprietary steam extract methodologies to ensure that the highest degree of water soluble constituents and polysaccharides are bioavailable in the end product.

- USDA Certified Organic and grown in the pacific Northwest
- Certified Kosher, Non GMO, Gluten Free & Vegan.
- Hot water extracted from 100% Turkey Tail Mushrooms.

Conclusion

Turkey Tail and other medical mushrooms have been used for centuries to treat infections. More recently, and mostly in Asia, they have also been used in the treatment of pulmonary diseases and cancer. Medicinal mushrooms have been approved adjuncts to standard cancer treatments in Japan and China for more than 30 years and have an extensive clinical history of safe use as single agents or combined with radiation therapy or chemotherapy.

More clinical trials need to be done in the United States. Unfortunately, pharmaceutical multinational companies are generally not interested in natural product research and trials due to lower profits and patent laws.

Super Snouts Turkey Tail mushroom supplements for pets are available in powder form and usually given to pets to support a healthy immune system and over all health.

Clinical evidence doesn't support one specific dosage for Turkey Tail. Super Snouts recommends 1 gram per 25lbs of body weight per day for maintenance and 50% more for recovery or more serious issues.

It's always best to check with your veterinarian prior to using any new supplement.

Turkey Tail can have some minor side effects when beginning use. These include mild diarrhea and darkened stools. If you notice any negative effects or discomfort in your pet while giving Turkey Tail mushrooms, discontinue use immediately and check with your veterinarian.