

Trametes versicolor

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Trametes versicolor — formerly known as *Coriolus versicolor* and *Polyporus versicolor* — is an extremely common polypore mushroom which can be found throughout the world. *Versicolor* means 'of several colours' and it is true that this mushroom is found in a wide variety of different colours. *T. versicolor* is commonly called **Turkey Tail** in the United States because of its resemblance to the tail of the wild turkey. *T. versicolor* is recognized as a medicinal mushroom in Chinese medicine under the name *yun zhi* (simplified Chinese: 云芝, traditional Chinese: 雲芝). In China and Japan *T. versicolor* is used as in immunoadjuvant therapy for cancer.^[1]

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Description and ecology

The top surface of the cap shows typical concentric zones of different colours. Flesh 1-3 mm thick, leathery texture. Cap with rust-brown or darker brown, sometimes blackish zones, Older specimens, such as the one pictured at right, can have zones green algae growing on them, thus appearing green. Commonly grows in tiled layers. Cap flat, up to 8 x 5 x 0.5-1 centimeters, often triangular or round, with zones of fine hairs. Pore surface whitish to light brown, pores round and with age twisted and labyrinthine. 2-5 pores per millimeter

The turkey tail has bioremediation potential, according to mycologist Paul Stamets. *T. versicolor* biodegrades a variety of pollutants. It is eaten by the caterpillars of the fungus moth *Nemaxera betulinella*.

Trametes versicolor



Scientific classification

Kingdom: Fungi
 Division: Basidiomycota
 Class: Agaricomycetes
 Subclass: Agaricomycetidae
 Order: Polyporales
 Family: Polyporaceae
 Genus: *Trametes*
 Species: ***T. versicolor***

Binomial name

Trametes versicolor
 (L.:Fr.) Quél.

Synonyms

Coriolus versicolor
Polyporus versicolor

Trametes versicolor

Mycological characteristics



pores on hymenium






cap is **offset** or indistinct



hymenium is **decurrent**

N.A.

lacks a stipe

	spore print is white to yellow
	ecology is saprotrophic
	edibility: edible



Two varieties of *T. versicolor* on the same tree stump.



Pale specimens



Close photo of *T. versicolor*.



Close-up showing underside and pores of an older specimen of *T. versicolor*.

Medicinal value

Main article: Polysaccharide-K

Polysaccharide-K (Krestin, PSK), is a protein-bound polysaccharide isolated from *Trametes versicolor*, which is used as an immune system boosting agent in the treatment of cancer in some European countries as well as China and Japan. In Japan, PSK is approved as an adjuvant for cancer therapy^[1] and is covered by government health insurance.

PSK has documented anticancer activity *in vitro*^[2], *in vivo*^[3] and in human clinical trials.^[4] Research has also demonstrated that the PSK can reduce mutagen-induced, radiation-induced, and spontaneously-induced cancer development.^[5] PSK has shown to be beneficial as an adjuvant in the treatment of gastric, esophageal, colorectal, breast and lung cancers.^[6] Human clinical trials suggest PSK can reduce cancer recurrence when used as an adjuvant^{[4][7]} and research has demonstrated the mushroom can inhibit certain human cancer cell lines *in vitro*.^{[8][9][10]} Further *in vitro* studies have shown that a nutraceutical blend (MC-S) of PSK, lentinan and other fungal extracts can also inhibit cancer cell proliferation.^[11]

The United States' top ranked^[12] cancer hospital, the MD Anderson has reported that it is a "promising candidate for chemoprevention due to the multiple effects on the malignant process, limited side effects and safety of daily oral doses for extended periods of time."^[13]

See also

- Polysaccharide-K
- Traditional Chinese Medicine

- Medicinal mushrooms
- Smith JE, Rowan NJ, Sullivan R *Medicinal Mushrooms: Their Therapeutic Properties and Current Medical Usage with Special Emphasis on Cancer Treatments* (http://sci.cancerresearchuk.org/labs/med_mush/med_mush.html) Cancer Research UK, 2001

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External links

- Mushroom-Collecting.com - Trametes versicolor (<http://mushroom-collecting.com/mushroomturkey.html>)
- Funghi Vitalia - Coriolus versicolor (http://www.funghi-vitalia.it/index.php?cat=c5_Coriolus.html)

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