

Edible Mushrooms: Nutritional and Medicinal Values

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SUMMARY

Human's interest towards mushrooms started with the examination of umbrella-shaped mushrooms which growing on soil or above ground. The mycophagists started collecting them and used for food purpose. The mushrooms having many nutritional as well as medicinal values. In nature, not all mushrooms gathered are edible and safe for human consumption, some species are toxic which create poisonous effect to human health. The economical values of mushrooms are good hence, farmers having scope for commercial cultivation of mushrooms.

INTRODUCTION

Mushrooms is the fleshy, umbrella shaped, spore bearing fruiting body of fungus which growing above ground or on soil. The term "Mushroom" is used to identify the edible sporophores. In some mushrooms, fruiting body is occurs in arcs or rings is known as "fairy rings". Edible mushrooms are good source of food. Mushrooms having high nutritional and medicinal values and contains small amount of essential amino acids. Many species of mushrooms gathered in the wild are poisonous; although some of them are edible species. *Agaricus bisporus* (white button mushroom) is most worldwide cultivated and popular species of mushroom having both nutritional as well as medicinal values followed by *Lentinus edodes* and *Pleurotus spp.* Mushrooms are extensively used for cooking by mycophagist. The medicinal values of mushrooms are antioxidant, antidiabetic, anticancer, antiviral and immunomodulating etc. They also used against tumor development and inflammatory processes (Chang and Wasser, 2012).

Nutritional Values of Mushroom

Mushrooms are good source of food for all age groups from child to old aged people. They contain many essential nutrients which are beneficial for human health. Mushrooms contain high per cent of water (about 93-95%). The nutritional values of mushrooms are depend on species, varieties and environmental conditions. They are rich source of proteins, minerals and vitamins. The protein is an important constituents of dry matter of mushrooms and its content depends on species, age and time of harvest of mushrooms. Mushrooms contains high per cent of protein than other vegetables. Mushrooms contains many essential minerals viz., potassium, phosphorous, sodium, calcium and magnesium. Mushrooms are good source of Vitamins (Vitamin B complex present in high amount) (Mattila *et al.* 2000). By having high fiber and low fat as compared to proteins and carbohydrates, mushrooms are considered as ideal food for human diet. Mushrooms having good taste, aroma and flavors hence, humans are interested to eating them.



Agaricus bisporus, most worldwide cultivated species of mushroom



Pleurotus spp. (Oyster mushroom)

Fresh mushrooms contain higher amount of carbohydrates. Edible species of mushrooms are widely used for commercial cultivation by farmers eg. *Agaricus bisporus* and *Pleurotus spp.*

Medicinal Values of Mushroom

Many species of mushrooms having high medicinal values and useful for preventing many diseases of humans viz., diabetes and cancer etc. The medicinal characteristics of mushrooms is due to presence of dietary fiber. According to the report, some species of mushrooms having antiviral, antitumor properties and potential to maintain level of blood sugar (Khan and Tania, 2012). Mushrooms diet are good for heart patients due to its low fat and absence of cholesterol. Due to less sugar content mushrooms are ideal diet for diabetic patients. Mushrooms contain antioxidant properties used to reduce oxidative damage in humans (Singh, 2017). *Agaricus blazei* is used against many diseases such as, cancer, diabetes, hyperlipidemia and liver infection etc. In *Ganoderma* species (Bracket mushroom) of mushrooms having antibiotic properties and also used against liver infection and inhibits cholesterol synthesis. *Ganoderma* does not produce any toxic effects and does not acts on specific organ (Wasser, 2002).



Ganoderma spp

CONCLUSION

Many edible species of mushrooms are useful for food as well as medicinal purpose. *Agaricus* and *Pleurotus* spp of mushrooms are widely used for cultivation by farmers. In recent years, the economical values of mushrooms are increasing therefore, small farmers having scope for commercial cultivation of mushrooms.

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