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MANAGE YOUR HEALTH CONDITIONS WITH MUSHROOMS

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ABSTRACT
Mushrooms contain protein, vitamins, minerals, and antioxidants. These can have various health benefits. For example, antioxidants are chemicals that help the body eliminate free radicals. Free radicals are toxic byproducts of metabolism and other bodily processes. They can accumulate in the body, and if too many collect, oxidative stress can result. This can harm the body's cells and may lead to various health conditions. Among the antioxidant agents in mushrooms are:selenium, vitamin C,choline The antioxidant content in mushrooms may help prevent lung, prostate, breast, and other types of cancer, (according to the National Cancer Institute.) Some sources have suggested that selenium may help prevent cancer. Mushrooms also contain a small amount of vitamin D. There is some evidence Trusted Source that vitamin D supplementation may help prevent or treat some kinds of cancer, though according to a 2018 report, the effect may vary from person to person. Choline is another antioxidant in mushrooms. Some studies Trusted Source have suggested that consuming choline can reduce the risk of some types of cancer.

KEYWORDS: Mushroom, free radicals, antioxidants, nutritional value.

INTRODUCTION
Mushroom is considered to be a complete, health food and suitable for all age groups, child to aged people. The nutritional value of mushroom is affected by numerous factors such as species, stage of development and environmental conditions. Mushrooms are rich in protein, dietary fiber, vitamins and minerals. The digestible carbohydrate profile of mushroom includes starches, pentoses, hexoses, disaccharides, amino sugars, sugar alcohols and sugar acids. The total carbohydrate content in mushroom varied from 26-82% on dry weight basis in different mushrooms. The crude fibre composition of the mushroom consists of partially digestible polysaccharides and chitin.

Edible mushrooms commonly have insignificant lipid level with higher proportion of polyunsaturated fatty acids. All these result in low calorific yield from mushroom foods. Mushrooms do not have cholesterol. Instead, they have ergosterol that acts as a precursor for Vitamin D synthesis in human body. Similarly, ergosterol in button mushroom is converted in to vitamin D2 when exposed to UV radiation or sunlight. The protein content of edible mushrooms is usually high, but varies greatly. The crude protein content of mushrooms varied from 12-35% depending upon the species. The free amino acids composition differs widely but in general they are rich in theronine and valine but deficient in sulphur containing aminoacids (ethionine and cysteine).

Nutritive values of different mushroom are given in Table 1.

Table 1. Nutritive values of different mushrooms (dry weight basis g/100g)

Mushroom	Carbohydrate	Fibre	Protein	Fat	Ash	Energy k cal
Agaricus bisporus	46.17	20.90	33.48	3.10	5.70	499
Pleurotus sajor-caju	63.40	48.60	19.23	2.70	6.32	412
Lentinula edodes	47.60	28.80	32.93	3.73	5.20	387
Pleurotus ostreatus	57.60	8.70	30.40	2.20	9.80	265
Volvariella volvaceae	54.80	5.50	37.50	2.60	1.10	305
Calocybe indica	64.26	3.40	17.69	4.10	7.43	391
Flammulina velutipes	73.10	3.70	17.60	1.90	7.40	378
Auricularia auricula	82.80	19.80	4.20	8.30	4.70	351

Courtesy: Stamets, 2005 (A.bisporous, P. sajor-caju, Lentinula edodes), FAO, 1972 (Pleurotus ostreatus, V. volvaceae), Doshi and Sharma, 1995 (Calocybe indica), Crison and Sand, 1978 (Flammulina velutipes and Auricularia spp).

Mushrooms contain protein, vitamins, minerals, and antioxidants. These can have various health benefits. Mushrooms contain protein, vitamins, minerals, and antioxidants. These can have various health benefits.

For example, antioxidants are chemicals that help the body eliminate free radicals.

Free radicals are toxic byproducts of metabolism and other bodily processes. They can accumulate in the body, and if too many collect, oxidative stress can result. This can harm the body's cells and may lead to various health conditions.

Among the antioxidant agents in mushrooms are:
• selenium
• vitamin C
• choline

Mushrooms also contain a number of B vitamins, including thiamine, riboflavin, B-6, and B-12.

Mushrooms are a rich, low calorie source of fiber, protein, and antioxidants. They may also mitigate the risk of developing serious health conditions, such as Alzheimer's, heart disease, cancer, and diabetes. They're also great sources of: Selenium.

Mushrooms are a low-calorie food that packs a nutritional punch. Loaded with many health-boosting vitamins, minerals, and antioxidants, they've long been recognized as an important part of any diet. For instance, mushrooms raised with exposure to ultraviolet light are a good source of Vitamin D, an important component in bone and immune health.

Crimini mushrooms are a particularly excellent source of zinc, an essential trace element. Zinc is a vital nutrient for the immune system and is also needed for ensuring optimal growth in infants and children.

Moreover, researchers have found a number of other excellent reasons for incorporating mushrooms into your diet, such as: ne cup of crimini mushrooms contains:
• Calories: 15
• Protein: 2.2 grams
• Fat: 0.2 grams
• Carbohydrates: 2.3 grams
• Fiber: 0.7 grams
• Sugar: 1.4 grams

Health benefits of Mushroom

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Lower Blood Pressure

Mushrooms are rich sources of potassium, a nutrient known for reducing the negative impact that sodium can have on your body. Potassium also lessens the tension in blood vessels, potentially helping to lower blood pressure.

Boost Immune System

The anti-inflammatory effect of mushrooms has been shown to greatly improve the efficiency of the immune system. Research has found that mushrooms help stimulate microphages in the immune system, enhancing its ability to defeat foreign bodies and making you less susceptible to serious illnesses.

Weight Loss

Long and short-term studies alike have found that mushrooms, in combination with exercise and other lifestyle changes, can have an important impact on weight loss. For example, after being asked to substitute 20 percent of their beef consumption with mushrooms, research participants showed improvements in their BMI and belly circumference. The antioxidants in mushrooms are also thought to reduce the risk of hypertension and other metabolic disorders.

Heart health

The fiber, potassium, and vitamin C in mushrooms may contribute to cardiovascular health.

Potassium can help regulate blood pressure, and this may decrease the risk of hypertension and cardiovascular disease. The American Heart AssociationTrusted Source (AHA) recommend reducing the intake of added salt in the diet and eating more foods that contain potassium.

According to current guidelinesTrusted Source, people should consume around 4,700 milligrams (mg) of potassium each day. Mushrooms appear on the AHA's list of foods that provide potassium.

In pregnancy

Many women take folic acid, or folate, supplements during pregnancy to boost fetal health, but mushrooms can also provide folate.

A cup of whole, raw mushrooms contains 16.3 microgramsTrusted Source (mcg) of folate. Current guidelines recommend that adults consume 400 mcgTrusted Source of folate each day.

Diabetes

Dietary fiber may help manage a number of health conditions, including type 2 diabetes.

A 2018 review Trusted Source of meta-analyses concluded that people who eat a lot of fiber may have a lower risk of developing type 2 diabetes. For those who already have it, fiber may help reduce blood glucose levels.

A cup of sliced, raw mushrooms, weighing 70 gramsTrusted Source (g), provides almost 1 g of fiber. Mushrooms, beans, some vegetables, brown rice, and whole-grain foods can all contribute to a person's daily requirement of fiber.

Cancer

The antioxidant content in mushrooms may help preventTrusted Source lung, prostate, breast, and other types of cancer, according to the National Cancer Institute.

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