Shiitake mushroom (Lentinula edodes)  
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Shiitake, an edible mushroom indigenous to East Asia, is cultivated worldwide for its purported health benefits

**ALSO KNOWN AS:** Forest mushroom, lentinula, black mushroom, hua gu.

**BACKGROUND:** Shiitake, an edible mushroom indigenous to East Asia, is cultivated worldwide for its purported health benefits. The fresh and dried forms of the mushroom are commonly used in East Asian cooking. It is also valued as a medicinal mushroom. Shiitake is popular in many countries around the world and is commonly found in supermarkets and Asian grocery stores. Lentinan ([1,3] beta-D-glucan), a polysaccharide isolated from shiitake, is thought to be responsible for many of the mushroom's beneficial effects. An injectable form of lentinan is used for cancer treatment in some countries, but it has not been evaluated in large studies.

**RESEARCH:** In vitro studies conducted with lentinan have indicated its anticancer effects in colon cancer cells;[1] these effects may result from its ability to suppress cytochrome P450 1A enzymes that are known to metabolize pro-carcinogens to active forms.[2]

**TAKE HOME POINTS**

- Shiitake is an edible mushroom that is widely used in East Asian cuisine and as medicine.
- Lentinan, a polysaccharide found in shiitake, has been shown to be responsible for many of its beneficial effects.
- Although an injectable form of lentinan is used in some countries as an adjuvant to cancer chemotherapy, definitive data on shiitake's efficacy as an oral anticancer agent are lacking.


**ADVERSE REACTIONS:** None have been reported at normal doses. However, there have been a handful of case reports documenting adverse effects associated with shiitake in some way. Chronic
hypersensitivity pneumonitis was observed in a lung cancer patient following exposure to shiitake spores.[13] Prolonged consumption of shiitake powder has resulted in dermatitis, photosensitivity,[14] eosinophilia, and gastrointestinal upset.[15] Intermittent skin eruptions (dermatitis), over a period of 16 years, were linked to consumption of shiitake mushrooms in a 45-year-old male.[16] Food allergy manifesting as esophageal symptoms was reported in a 37-year-old man following consumption of shiitake mushroom.[17]

References:
REFERENCES


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