

PRESS RELEASE

9 April 2021

## **ANSES and the DGCCRF reiterate the importance of cooking shiitake mushrooms thoroughly before eating to avoid poisoning**

Originally from Asia, the shiitake is the world's most widely consumed mushroom after the white button variety. It has been on the European market for several years and is now grown and produced in France. When eaten raw or undercooked, shiitake can trigger a toxic "flagellate" dermatitis all over the body, causing severe itching. To avoid such toxic reactions, ANSES and the DGCCRF wish to remind consumers and catering professionals of the importance of cooking shiitake mushrooms thoroughly before eating them, regardless of how they are presented: fresh, dried or powdered.

**Consumption of raw or undercooked shiitake mushrooms can cause severe itching that lasts for several weeks**

Shiitake (*Lentinula edodes*) may be marketed under different names: (golden) oak mushrooms, Chinese/Oriental black mushrooms. They can also be sold in mixtures with other black mushrooms.

Traditionally eaten cooked, consumption of raw shiitake has been growing over the last few years. However, eating these mushrooms raw or undercooked can cause a highly specific skin reaction: **toxic flagellate dermatitis**. It covers the entire body and face, and **causes severe itching that can last for up to three weeks**. Symptoms appear within hours or days of consumption and may be triggered again with further ingestion. The amount of mushroom consumed is also thought to play a role in its occurrence and persistence.

It is caused by lentinan, a substance in the mushroom that is destroyed by cooking.

**A persistent number of poisoning cases causing skin symptoms**

An alert concerning the poisoning risk had already been issued by ANSES and the French poison control centres in 2015. However, a consistent number of toxic reactions causing skin symptoms are still being observed. Indeed, through its health surveillance work, ANSES has noted that since 2015, **poison control centres** have recorded between **11 and 15 cases per year of poisoning**

**causing skin symptoms.** However, this **number may be underestimated**, because the link between the cases of dermatitis (a poorly understood disease, sometimes confused with photodermatosis – a skin reaction occurring after exposure to sunlight) and shiitake mushroom consumption is not always made by consumers or their doctors.

To limit the risk of toxic reactions, therefore, **the DGCCRF, ANSES and the poison control centres reiterate that this mushroom must not be eaten without first having been thoroughly cooked.** Quick stir-frying may also be insufficient to destroy the toxic substance, as shown by several cases occurring after consumption in restaurants offering this type of cooking.

More generally, the DGCCRF, ANSES and the poison control centres recommend referring to the list of edible mushrooms published in ANSES's opinion of 4 April 2017 and available on [its website](#), which specifies the edibility conditions and the precautions to be taken when preparing and/or cooking certain mushrooms.

---

#### Press liaison

##### ANSES

+33 (0)1 49 77 13 77 / (0)1 49 77 22 26 / (0)1 49 77 28 20  
presse@anses.fr

##### DGCCRF

+33 (0)1 44 97 23 91  
communication@dgccrf.finances.gouv.fr