

Fungi poisoning

Mushrooms are a type of fungus. Australia has many varieties of wild-growing fungi, many of which are edible. However, a few types are poisonous or even deadly. Contrary to popular belief, there is no home test that can distinguish between edible and poisonous varieties. One common (and useless) home test includes putting a silver spoon into the cooking water to see if the mushrooms will stain it black.

The only way to tell whether the wild mushroom you intend to pick is safe to eat or not is to know how to positively identify it. If you are unsure, don't eat it. If you suspect you may have eaten a poisonous mushroom, see your doctor or go to the nearest hospital emergency department immediately.

Effects of poisonous mushrooms

The three main effects of poisonous mushrooms are:

- **Hallucinations** – some mushroom species contain toxins that prompt hallucinations. These psychotropic types are commonly referred to as 'magic mushrooms'. One of the better known species is the Golden Top (*Psilocybe subaeruginosa*). Apart from hallucinations, other side effects include agitation, rapid heart rate and headache. Unfortunately for some trip-seekers, the Golden Top looks very similar to some varieties of *Galerina* mushroom, which are potentially deadly.
- **Illness** – most poisonous mushrooms cause illness, especially gastrointestinal upsets like vomiting and diarrhoea.
- **Death** – about nine out of 10 fungi-related deaths are attributable to the Death Cap (*Amanita phalloides*). Symptoms occur 12 hours or so after eating and include nausea, stomach pain, vomiting and diarrhoea. The toxin can fatally harm the liver and kidneys, and death can occur within 48 hours. Other mushrooms that have a similar effect to the Death Cap include some species of *Galerina*, *Lepiota* and *Conocybe*.

Yellow Stainer

The Yellow Stainer (*Agaricus xanthodermus*) is the most commonly ingested poisonous mushroom. This species commonly grows wild in lawns and gardens, and looks very similar to edible mushrooms. Characteristics include:

- Mushrooms grow on the ground in clusters.
- Mushrooms range from 50–200mm in diameter.
- They are white or off-white in colour.
- The cap of young mushrooms looks a little square.
- When damaged, the cap and stem stain yellow.
- The mushroom gives off a chemical odour, like disinfectant or iodine.
- If eaten, symptoms include abdominal cramps, nausea, vomiting and diarrhoea (usually within 2–3 hours of consumption). Less common symptoms include headache, dizziness, sweating and drowsiness.

Death Cap

The Death Cap (*Amanita phalloides*) is potentially fatal if eaten. Characteristics include:

- Mushrooms grow under oak trees.
- Mushrooms are 40–160mm in diameter.
- The cap ranges in colour from pale yellow to green to olive brown.
- The gills (ridges on the underside of the cap) are white.
- The base of the stem has a membranous 'cup'.
- Onset of symptoms is anywhere from three to 36 hours after ingestion.
- Death will usually occur from liver and kidney damage.
- One mushroom can contain enough poison to kill an average-sized adult.

- The toxin isn't neutralised by cooking of any kind, including soaking or drying.

Facts about fungi poisoning

A recent study undertaken by the Victorian Poisons Information Centre and the Royal Botanic Gardens Melbourne aimed to find out about fungi poisoning in Victoria. Selected findings include:

- Most poisonous fungi are eaten during autumn.
- The most commonly ingested poisonous mushroom was the Yellow Stainer (*Agaricus xanthodermus*), because it looks very similar to the Field Mushroom (*Agaricus campestris*) and the Cultivated Mushroom (*Agaricus bisporus*).
- Two-thirds of reported cases were in children less than five years of age. In 86 per cent of these cases, the children ate mushrooms growing in their gardens at home.
- People who deliberately ate wild mushrooms in the hope of experiencing a drug-related hallucination were extremely likely to get sick.
- The most common symptoms of fungi poisoning were gastrointestinal upsets such as vomiting, diarrhoea and abdominal pains.

Protect your children

Many varieties of poisonous mushroom grow wild in Victoria. Most young children who eat poisonous mushrooms find them in the garden at home. Children aged less than five years of age have a natural inclination to put things in their mouths. If you have a toddler, it may be a good idea to regularly check your garden for mushrooms to reduce the risk of accidental poisoning.

Treatment for fungi poisoning

If you suspect you may have eaten a poisonous mushroom, don't wait for symptoms to occur. Seek immediate treatment through your doctor or the emergency department of your nearest hospital. It helps to have a sample of the mushroom so medical staff can work out which species you ate.

Where to get help

- Your doctor
- Victorian Poisons Information Centre Tel. 13 11 26 – seven days a week, 24 hours a day – for advice when poisoning or suspected poisoning occurs and poisoning prevention information
- Emergency department of your nearest hospital

Things to remember

- Contrary to popular belief, there is no home test that can distinguish between edible and poisonous mushrooms.
- The Yellow Stainer (*Agaricus xanthodermus*) is the most commonly ingested poisonous mushroom.
- Symptoms include gastrointestinal upsets such as abdominal pain, nausea, vomiting and diarrhoea.
- The Death Cap (*Amanita phalloides*) is potentially fatal if ingested.
- If you suspect you may have eaten a poisonous mushroom, don't wait for symptoms to occur. Seek immediate medical treatment.

This page has been produced in consultation with, and approved by:

Department of Health - Environmental Health Unit

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