Mushroom poisoning

Summary

- There is no ‘home test’ that can help you tell the difference between fungi and mushrooms that are safe to eat and those that are poisonous.
- It is recommended that you only eat mushrooms you’ve bought from the supermarket, greengrocer or another reputable source.
- The yellow staining mushroom (Agaricus xanthodermus) is the most commonly eaten poisonous mushroom in Victoria.
- 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 or your child may have eaten a poisonous mushroom, don’t wait for symptoms to occur. Contact the Victorian Poisons Information Centre for advice (Tel 13 11 26).
- If the person who has eaten the mushroom has collapsed, stopped breathing, is having a fit or is suffering an anaphylactic reaction, immediately ring triple zero (000) for an ambulance.

Yellow-staining Mushroom (Agaricus Xanthodermus). Courtesy of Royal Botanic Gardens Victoria, photographer Tom May.
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. The only way to tell whether a wild mushroom is safe to eat is to have it identified by a mushroom expert (mycologist).

If you are unsure if a mushroom is safe to eat, don’t eat it. It is recommended that you only eat mushrooms you have bought from the supermarket, greengrocer or another reputable source.

**Treatment for mushroom poisoning**

If you suspect you or your child may have eaten a poisonous mushroom do not wait for symptoms to occur, contact the Victorian Poisons Information Centre (VPIC) (Tel 13 11 26).

The VPIC staff member will take a brief history from you and give you the appropriate advice. It may be necessary for you to seek treatment through your doctor or the emergency department of your nearest hospital.

It helps to have a sample of the mushroom. VPIC staff may ask you to send them a photo of the wild mushroom to help in the species identification and risk assessment.

If the person has collapsed, stopped breathing, is having a fit or is suffering an anaphylactic reaction, immediately ring triple zero (000) for an ambulance.

Do not ring the Victorian Poisons Information Centre in an emergency.

**Effects of poisonous mushrooms**

The three main effects of poisonous mushrooms are:

- **hallucinations** – some mushroom species contain toxins that cause 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 effects include confusion, muscle weakness, agitation, rapid heart rate and headache. The golden top looks very similar to some varieties of Galerina mushroom, which are potentially deadly.

- **gastrointestinal illness** – many poisonous mushrooms cause gastrointestinal illness, such as nausea, vomiting, stomach cramps and diarrhoea.

- **liver failure and death** – about nine out of 10 fungi-related deaths are attributable to the death cap mushroom (Amanita phalloides). Symptoms occur six to 24 hours after eating and include nausea, stomach cramps, 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.

**Poisonous mushrooms in Victoria**

The yellow staining mushroom and the death cap are two poisonous mushrooms that grow in Victoria.

**Yellow staining mushroom**

The yellow staining mushroom (Agaricus xanthodermus) is the most commonly eaten poisonous mushroom in Victoria. 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, often clumped or in ‘fairy rings’.
- The cap is 50–200 mm in diameter.
- The cap is usually white, but can become brown with age.
- The cap of young mushrooms looks a little square.
- When damaged, the cap and stem stain yellow, fading later to a dirty brown.
- The mushroom gives off a chemical smell, like disinfectant, iodine or kerosene. This smell is even stronger if you cook them.
- If eaten, symptoms include abdominal cramps, nausea, vomiting and diarrhoea (usually within 30 minutes to
two 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.
- The cap is 40–160 mm 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 six to 24 hours after ingestion.
- Death may occur from liver and kidney damage.
- One mushroom can contain enough poison to kill an average-sized adult.
- Cooking, peeling, drying or soaking the mushroom does not make the mushroom edible.

**Facts about mushroom poisoning**

In Victoria, most poisonous fungi are eaten during autumn. The most commonly eaten poisonous mushroom in Victoria is the yellow staining mushroom (*Agaricus xanthodermus*), because it looks very similar to the field mushroom (*Agaricus campestris*) and the cultivated mushroom (*Agaricus bisporus*). Many reported cases of fungi poisoning involve young children who find yellow staining mushrooms growing in the garden at home.

If you deliberately eat wild mushrooms in the hope of experiencing a drug-related hallucination, you are very likely to become unwell. The most common symptoms of fungi poisoning are gastrointestinal upsets such as vomiting, diarrhoea and abdominal pains. A few types of fungi are deadly, such as the death cap mushroom.

**A video (May 2019)** featuring Dr Brett Sutton, Victoria’s Chief Health Officer and Dr Teresa Lebel, Senior Mycologist, Royal Botanical Gardens shows the need to be aware of the dangers of death cap mushrooms and other poisonous mushrooms.

**Protect your children from mushroom poisoning**

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

**Where to get help**

- In an emergency always call triple zero (000)
- Emergency department of your nearest hospital
- **Victorian Poisons Information Centre** Tel. 13 11 26 – for advice when poisoning or suspected poisoning occurs, and poisoning prevention information (24 hours a day, 7 days a week)
- Your **GP (doctor)**