Mushroom poisoning

Summary

- Contrary to popular belief, there is no home test that can distinguish between edible and poisonous fungi and mushrooms.
- It is recommended that you only eat mushrooms you've purchased from the supermarket, greengrocer or reputable source.
- The yellow stainer (Agaricus xanthodermus) is the most commonly ingested 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).

Yellow-staining Mushroom (Agaricus Xanthodermus). Courtesy of Royal Botanic Gardens Victoria, photographer Tom May.

Death Cap Mushroom (Amanita phalloides) 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, don’t eat it. It is recommended that you only eat mushrooms you have purchased from the supermarket, greengrocer or other 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 6 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 stainer and the death cap are two poisonous mushrooms that grow in Victoria.

**Yellow stainer**

The yellow stainer (Agaricus xanthodermus) is the most commonly ingested 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 odour, like disinfectant, iodine or kerosene. The odour is more intense on cooking.
- 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.
The toxin isn’t neutralised by cooking of any kind, including soaking or drying.

Facts about fungi poisoning
A study about fungi poisoning in Victoria, undertaken by VPIC and the Royal Botanic Gardens Melbourne, found:

- Most poisonous fungi are eaten during autumn.
- The most commonly ingested poisonous mushroom in Victoria is 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 of fungi poisoning were in children under five years of age. In 86 per cent of these cases, the children ate mushrooms growing in their gardens at home.
- People who deliberately eat wild mushrooms in the hope of experiencing a drug-related hallucination are extremely likely to get sick.
- The most common symptoms of fungi poisoning are gastrointestinal upsets such as vomiting, diarrhoea and abdominal pains.

Protect your children from fungi 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, you should regularly check your garden for mushrooms and remove them to reduce the risk of accidental poisoning.

Where to get help
- Victorian Poisons Information Centre Tel. 13 11 26 – for advice when poisoning or suspected poisoning occurs, and poisoning prevention information (24 hours, 7 days)
- Your doctor
- Emergency department of your nearest hospital