

# Smoke and carbon monoxide from peat fires



Environment  
Protection  
Authority Victoria



Publication 1831 February 2020

Fact sheet

## What is peat?

Peat is organic material that slowly develops in wetlands. This happens when partially decayed vegetation builds up.

Peat can develop above ground or many metres below the soil surface.

Peat is high in carbon and naturally porous. Porous means it has small holes that liquid or air can easily pass through. If peat dries out, lightning strikes, bushfires and extreme daytime temperatures may start a peat fire.

## What does peat fire smoke look like?

Peat usually smoulders (burning slowly at a low temperature) rather than burning with an open flame. This is why peat fires can be difficult to put out and why smoke is often low to the ground.

Peat smoke is often more visible than smoke from bushfires. This is due to large amounts of water vapour in the smoke.

## What is in peat fire smoke?

Peat smoke differs from normal wood smoke because of what is in the peat and how it burns. Peat smoke contains fine particles, water vapour and gases including carbon monoxide, carbon dioxide and nitrogen oxides.

## What is carbon monoxide?

Carbon monoxide (CO) is a common pollutant and is a clear, odourless gas. Smoke and exhaust fumes often contain carbon monoxide.

In Victoria, carbon monoxide levels are normally low in the outside air. Although carbon monoxide can affect your health, you're very unlikely to experience high carbon monoxide levels in the outside air, even during a fire. High levels are much more likely inside, for example if you have a faulty gas heater.

Carbon monoxide is measured as parts per million (ppm) in the atmosphere. Health is affected when levels are above 70 ppm for an hour or more.

## Why we measure carbon monoxide around a peat fire

Peat smoke can release larger volumes of carbon monoxide than wood smoke. When peat burns it produces gases that have a distinct acrid smell and can be irritating to your airways.

More information about the effects of carbon monoxide can be found on [EPA's website](#).

There are guidelines for outdoor work in areas impacted by bushfire smoke available on [WorkSafe's website](#).

## General health information

Air quality can change rapidly, so we advise you to go to EPA AirWatch ([epa.vic.gov.au/AirWatch](http://epa.vic.gov.au/AirWatch)) to monitor conditions.

People with a heart or lung condition, including asthma, children (up to 14 years), pregnant women and people over 65 years of age are more sensitive to the effects of breathing in smoke.

If you have a heart or lung condition, take your medication as prescribed. Asthmatics should follow their personal asthma action plan and keep reliever medication on hand.

If you or anyone in your care is experiencing symptoms that may be due to smoke exposure, call NURSE-ON-CALL on 1300 60 60 24 or seek medical advice.

Anyone experiencing difficulty breathing, wheezing or tightness in the chest should seek urgent medical assistance – call 000.

### Further information

Contact EPA:  
**1300 372 842** (1300 EPA VIC) (24 hours)  
[epa.vic.gov.au](http://epa.vic.gov.au)

Incident information and updates:  
VicEmergency hotline 1800 226 226  
[emergency.vic.gov.au](http://emergency.vic.gov.au)  
or listen to your local emergency radio station

Up-to-date air quality information:  
[epa.vic.gov.au/AirWatch](http://epa.vic.gov.au/AirWatch)

