

# Bushfire smoke and your health

Public health bushfire information - December 2010

## Introduction

Bushfire smoke can reduce air quality in rural and urban areas and may affect people's health.

This fact sheet provides information on bushfire smoke, how it can affect you and your family's health, and actions that you can take to avoid or reduce potential health effects.

## Bushfire smoke – what is it?

Bushfire smoke is a mixture of different-sized particles, water vapour and gases, including carbon monoxide, carbon dioxide and nitrogen oxides.

The larger particles which are visible to the eye contribute to the visible haze when a fire is burning. They are generally too large to be breathed deeply into the lungs but can irritate the nose and throat.

Finer microscopic particles and gases are small enough to be breathed deep into the lungs and can cause health effects.

## How can bushfire smoke affect my health?

How smoke affects you depends on your age, pre-existing medical conditions such as asthma or heart disease, and the length of time you are exposed to the smoke.

Signs of smoke irritation include itchy eyes, sore throat, runny nose and coughing. Healthy adults usually find that after a short exposure to smoke these symptoms clear up once the smoke goes away.

Children, the elderly, smokers and people with pre-existing illnesses such as heart or lung conditions (including asthma) are more sensitive to the effects of breathing in fine particles. Symptoms may worsen and include wheezing, chest tightness and difficulty breathing.

It is very important that people with pre-existing health conditions take their medication, follow their treatment plan, and seek immediate medical advice if symptoms persist.

## What about wearing a facemask?

Ordinary paper dust masks, handkerchiefs or bandannas do not filter out fine particles from bushfire smoke and are generally not very useful in protecting your lungs.

Special face masks (called 'P2' masks) filter bushfire smoke providing a greater protection against inhaling fine particles. They are available at most hardware stores.

However, before deciding to wear a mask you should understand that:

- they can be hot and uncomfortable to wear
- they can make it harder for you to breathe normally. Anyone with a pre-existing heart or lung condition should seek medical advice before using them
- if the seal around the face and mouth is poor the mask is much less effective (men should be clean shaven to get a good seal)
- the masks do not filter out gases such as carbon monoxide
- it is better to stay indoors, away from the smoke, unless you cannot avoid working outdoors.

## Protecting your health

- Avoid physical activity outdoors (exercise lets more fine particles to be breathed deeper into the lungs). People with pre-existing lung or heart conditions in particular, should rest as much as possible and keep away from the smoke.

- Close windows and doors when indoors. Switch your air-conditioner to 'recycle' or 'recirculate' to reduce smoke coming inside your home.
- When indoors, minimise other sources of air pollution, such as cigarette smoke, burning candles, using unflued gas appliances or woodstoves and stirring up fine dust from sweeping or vacuuming.
- If your home gets too hot to be comfortable, or is letting in outside air, try to take an air-conditioned break at a local community library or shopping centre. If there is a break in smoky conditions, take the opportunity to air out your home to improve indoor air quality.
- Anyone with a heart or lung condition should keep at least five days supply of medication on hand. Those with asthma should follow their personal asthma plan.
- Anyone experiencing difficulty breathing or chest pain should seek urgent medical assistance.
- If you do not have an air conditioner, take steps to reduce heat stress, especially for the very young, people who are unwell, or the elderly. (Refer to: [www.health.vic.gov.au/environment/heatwave/](http://www.health.vic.gov.au/environment/heatwave/) for information on heat stress and managing the effects of heat). For local updates on fire and smoke conditions listen to your local radio station or watch television. Contact the Bushfire Information Line on 1800 240 667. (TTY for the deaf call 1800 122 969, teletext machine only).
- When the Environment Protection Authority Victoria determines the air quality to be hazardous (high bushfire smoke alert level with less than 1 km visibility), it is advisable for everyone to avoid outdoor activity and rest indoors. Outdoor sporting events should be postponed. Sensitive individuals should consider temporarily staying with a friend or relative outside the smoke-affected area.

## For further information

- If you or anyone in your family is experiencing symptoms that may be due to bushfire smoke exposure, seek medical advice from your local doctor.
- Regarding air quality in bushfire areas – contact the Environment Protection Authority Victoria on (03) 9695 2722 or visit: [www.epa.vic.gov.au/air/bushfires/](http://www.epa.vic.gov.au/air/bushfires/).
- Regarding bushfires including updates – contact the Victorian Bushfire Information Line on 1800 240 667.
- Regarding current fires – visit the Country Fire Authority (CFA) website: [www.cfa.vic.gov.au/incidents/incident\\_summary.htm](http://www.cfa.vic.gov.au/incidents/incident_summary.htm).
- Regarding planned burns – contact the Department of Sustainability and Environment (DSE) on 136 186 or visit: [www.dse.vic.gov.au/](http://www.dse.vic.gov.au/).