

Public Health Information

Bushfire Smoke and Your Health

Introduction

Bushfire smoke can affect air quality in rural and urban areas. This smoke 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 contains particles of different sizes, water vapour and gases, including carbon monoxide, carbon dioxide and nitrogen oxides.

The larger particles are visible to the eye and contain burning debris, embers etc. These particles 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, throat and lungs.

In comparison, the finer particles (1/30th the width of an average human hair) and gases are small enough to be breathed deep into the lungs and can affect your health.

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.

Healthy adults generally find that effects from short exposure to smoke will clear up quickly after the smoke goes away. Signs of smoke irritation include itchy eyes, sore throat, runny nose and general coughing.

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 take a while to develop and get worse.

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

What about wearing a facemask?

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

Special masks (called 'P1' or 'P2') are suitable to filter bushfire smoke. They are available at most hardware stores and generally provide a greater degree of protection from inhaling fine particles.

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, so 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 (eg. men with facial

hair, especially beards cannot get a good seal);

- The masks do not filter out gases such as carbon monoxide and
- It is better to stay indoors, away from the smoke, unless you cannot avoid working outdoors.

Health Precautions – what can I do?

To minimise possible health effects during a bushfire smoke event consider:

- Minimising the amount of 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.
- Keeping windows and doors closed when indoors. If you are using your air-conditioner switch it to “recycle or recirculate”. This will reduce the amount of smoke coming inside.
- When indoors, minimise other sources of air pollution, such smoke from cigarettes, woodstoves or burning candles, using unflued gas appliances or 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 lung or heart condition should keep at least 5 days supply of medication on hand. Those with asthma should follow their personal asthma plan.
- Anyone experiencing breathing problems or chest pain should seek medical advice immediately.
- If you do not have an air conditioner, take steps to reduce heat stress, especially in the very young, people who are unwell, or the elderly. (Refer to links at: http://www.health.vic.gov.au/environment/emergency_mgmt/index.htm#bushfires 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 555 677, then ask for 1800 240 667).
- When smoke conditions become ‘hazardous’, everyone should rest indoors and avoid outdoor activity as much as possible. Outdoor sporting events should be postponed. Sensitive individuals should consider temporarily moving away from the smoke-affected area and stay with a friend or relative.

Further Information

For further health information about bushfire and smoke, contact

- Environmental Health Section of your Local Council, or
- Environmental Health Unit of the Department of Human Services on 1300 761 874.

Two fact sheets relating to bushfires and public health are:

- “Hazards on Your Property after a Bushfire”
- “Advice for people with water tanks living in bushfire-affected areas”

Both fact sheets can be downloaded from:

http://www.health.vic.gov.au/environment/emergency_mgmt/index.htm#bushfires or obtained by calling the Environmental Health Unit of Department of Human Services on 1300 761 874.