Outdoor Smoke – Health Impacts

Smoke from fires, including building fires, woodfire heaters, bushfires and hazard reduction burns, is made up of small particles and may include carbon monoxide, carbon dioxide, nitrogen oxides and volatile organic compounds.

Smoke can be harmful to your health and especially harmful to people who already have breathing-related difficulties.

What are the health effects of inhaling smoke?

Common symptoms that you may experience when around smoke includes:

- Itchy or burning eyes
- Throat irritation
- Runny nose
- Shortness of breath and coughing

Symptoms can occur for several days after exposure. Prolonged exposure to smoke particles can aggravate existing lung conditions, such as chronic bronchitis, emphysema, asthma and other cardiac conditions. If you have a heart or lung condition, follow your treatment plan prescribed by your doctor.

Who can be affected by inhaling smoke?

Anyone can experience symptoms from inhaling smoke. People who are especially sensitive to the effects of smoke include:

- People with heart or lung conditions (including asthma)
- Children aged less than 14 years
- Pregnant women
- People over 65 years of age

How will I know if smoke concentrations are dangerous?

Usually smoke can be seen as a visible haze and can be detected by its distinctive smell. The more visible the smoke haze, and the stronger the odour, the more likely the smoke contains concentrations of gases and/or particles that are hazardous to your health.
What health precautions can I take?

The following precautions can help you minimise health effects from exposure:

- Leave the area for a cleaner environment
- Stay indoors, with windows and doors closed
- Stay in air-conditioned premises and switch the air-conditioner to ‘recycle’ or ‘recirculate’ to reduce the amount of smoke entering the building
- Only use an evaporative cooler if the system is filtered.
  Note: some domestic evaporative coolers are less likely to filter fine particles such as smoke and may introduce smoke inside. If you have any questions about your evaporative cooler, please speak to the manufacturer or place of purchase as models may vary.
- Visit a local air-conditioned building such as a library, community centre or shopping centre
- Avoid vigorous exercise, especially if you have asthma or other chronic respiratory and/or chronic cardiac disease
- If you have asthma, continue taking your medication, follow your asthma plan, and consult with your general practitioner if required
- If it is safe to do so, check on elderly neighbours or other people who you think might need extra help

Anyone with concerns about their health should seek medical advice from their doctor. If you experience chest tightness, wheezing, or difficulty breathing, seek urgent medical assistance. In an emergency, call triple zero (000).

Can I wear a mask to protect me from smoke?

If you must be outdoors when smoke is present, consider wearing a P2 / N95 rated mask designed to filter fine particles. These masks are available from hardware retailers and other safety equipment suppliers. P2 / N95 masks sold in Australia are usually only available in adult sizes and will not fit most children aged less than 12 years.

To offer the best protection, a P2 / N95 mask must be fitted properly. When purchasing P2 / N95 masks it is important to take time to correctly identify which size and style of mask is suitable for you.

The following steps should be followed to ensure a P2/N95 mask is correctly fitted:

1. Remove glasses and hats. Tie back long hair so it does not become tangled in the straps of the mask
2. Put the mask on your face, ensuring the nose piece is at the top of the mask
3. Place the top strap or tie high on the back of your head
4. Move the bottom strap over your head and position it below your ears
5. Compress the mask against the face to ensure a seal across the bridge of the nose
6. Compress the mask to ensure a seal across the cheeks and the face
7. Conduct a fit check: check the seal of the mask by gently inhaling. If the mask is not drawn in towards the face, or air leaks around the face seal, readjust the mask and repeat process or check for defects in the mask. If the mask still leaks you may need to try a different size or style of mask
8. People with beards should shave before using a P2 / N95 mask as a good seal between the mask and the wearer’s face cannot be guaranteed if they have facial hair.