

Smoke Inhalation

What is Smoke Inhalation?

Smoke inhalation occurs when you breathe in harmful smoke particles and gases. Smoke usually only causes mild irritation where little or no treatment is required.

Occasionally, inhaling smoke particles can inflame your lungs and airways, causing them to swell and lead to difficulty in breathing.

Symptoms can be delayed for up to 36 hours and can vary depending on the type and duration of exposure.

What is carbon monoxide?

Carbon monoxide is a gas produced from the burning of substances and can be dangerous as it reduces the oxygen levels in the body. The treatment for carbon monoxide inhalation is breathing high concentrations of oxygen which speeds up its removal from the blood.

Common Symptoms

- Shortness of breath
- Cough
- Wheeze
- Excess sputum
- Eye irritation
- Hoarse voice
- Nausea/vomiting

If you need an assessment the following may be done:

- A history will be taken where the clinician will ask about the length and type of exposure. You will also be asked if there are any thermal burns to the skin.
- The clinician will examine you for signs of respiratory distress or wheeze.
- Observations such as your oxygen levels, heart rate, respiratory rate and blood pressure will be taken.
- The clinician will ask about your medical history as patients with respiratory and cardiac disease can be at higher risk of developing complications.
- Please mention if you are pregnant.

The treatment will vary patient to patient but some tests may be performed including:

- Chest X-ray
- Routine blood tests
- Blood tests to check for carbon monoxide levels
- ECG (heart trace monitoring)
- You may be given oxygen via a mask
- You may be given nebulisers for wheezing

Do I have to stay in hospital?

Every patient will be different but current guidelines recommend if you have symptoms of smoke inhalation then you should be observed for at least 4 hours in hospital. Depending on the severity of your symptoms some patients' may be admitted for a longer period of observation and treatment.

When to come back to hospital:

We recommend that if following discharge, your symptoms worsen or new symptoms develop over the next 24-48 hours then please return for a review.

If you have any of the symptoms below, please return to the Emergency Department **urgently**:

- Hoarse Voice
- Difficulty in breathing
- Prolonged coughing spells
- Mental Confusion

What problems can occur from smoke inhalation?

Most patients will be improving after being discharged from the Emergency Department but rarely problems can occur in some patients such as:

- **Bronchospasm** – this is when the airways get swollen, and you get symptoms such as wheezing. This can be treated with some medications to reduce the swelling.
- **Pulmonary Oedema** – this is when the lungs fill up with fluid as a result of inflammation. Patients will be coughing up lots of sputum and will be very short of breath and unwell.

If you develop any of these symptoms after being discharged from hospital, then please return to the Emergency Department at the Grange Hospital.

References:

<https://www.toxbase.org/poisons-index-a-z/s-products/smoke-inhalation/>
<https://aci.health.nsw.gov.au/networks/eci/clinical/ed-factsheets/smoke-inhalation>

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