



Respiratory Care WA

Asthma | COPD | Respiratory Health



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Air Pollution and Asthma

This information sheet is designed to inform people with asthma about air pollution: how it can make asthma worse and how to possibly reduce its effects.

Will air pollution cause asthma?

There is no evidence that air pollution can actually cause any respiratory disease, including asthma. In fact, some research in Europe shows more allergy and asthma in less polluted cities. Australia and New Zealand have the highest levels of asthma in the world despite having fairly good air quality.

Will air pollution make my asthma worse?

There are two main forms of air pollution which could make asthma worse.

1. Particles from combustion e.g. car and diesel engines, industry, domestic coal and wood and bush fires as well as dirt and sand. (See Fact Sheet "Asthma and Woodsmoke") Diesel exhaust is an asthma trigger, especially the tiny particles which can travel into the lower airways and are believed to trigger asthma and other respiratory conditions.
2. Nitrogen dioxide and ozone are formed in summer smog and in high concentrations cause airway inflammation in people with and without asthma. Some evidence suggests that nitrogen dioxide and possibly ozone may make asthmatic airways more sensitive to allergens and so increase inflammation in the airways. However, reducing exposure to ozone, oxides of nitrogen and particles does not seem to improve asthma symptoms.

There is no evidence that living near power stations that meet Australian emission standards can cause asthma or make it worse.

What can I do?

If you know that one of your trigger factors is air pollution then:

- Stay indoors on high pollution days;
- Avoid heavy outdoor exercise on these days;
- If you have to go outside on high pollution days, pre medicate with a blue reliever medication (Ventolin, Asmol, Airomir or Bricanyl) 5-10 minutes before exposure;
- Increase your medication with your doctor's approval;
- Lobby on behalf of good air quality;
- Have your car tuned regularly; and
- Avoid smoke from bushfires, domestic incinerators and unvented wood stoves and unflued gas heaters.