Dust and Your Health

health

An information guide

What is dust?

Dust is a general term for solid particles (less than 500 micrometers) that originate from natural sources such as land and soil. Dust is suspended in the air by wind and human activities. It is not generally a vent or a stack emission or a by-product of burning. Suspended dust particles are composed mainly of minerals but can also contain other particles such as sea salt, pollen and spores.

Dust can cause annoyance and is often referred to as nuisance dust but is also a component of PM_{10} (particles with a diameter of less than 10 micrometers). Nuisance dust is larger particles that deposit on cars, washing and carried into the home causing a nuisance. Smaller particles (PM_{10}) reduce air quality and visibility. PM_{10} may have adverse effects on health, particularly for people who have existing heart and respiratory problems. PM_{10} is generated from a number of different sources including industrial processes, urban environment (motor vehicles, wood heaters), agricultural and natural sources (general windblown particles).

Who is more vulnerable to the effects of dust?

Vulnerable people include:

- infants and young children
- the elderly
- people with respiratory conditions, such as asthma, bronchitis and emphysema
- people with heart disease.

Exposure and health effects

The most common symptoms experienced as a result of elevated dust are irritation to the eyes and upper airways. Elevated PM_{10} levels can increase the symptoms of existing heart and lung conditions including asthma. For vulnerable populations, elevated PM_{10} may:

- worsen allergic reactions and asthma attacks in people with these pre-existing conditions
- worsen breathing-related problems in people with respiratory conditions
- increase the symptoms of existing heart problems.

These impacts may lead to increases in medication usage or the need for medical treatment at your GP or in some cases at the hospital.

Protecting your health

On high dust days*, the following precautions can protect you and your family against any adverse effects of airborne PM_{10}:

- Avoid outdoor activity. If you must go outside spend as little time outside as possible.
- Avoid vigorous exercise, especially if you have asthma, or a breathing related condition.
- Stay indoors, keeping windows and doors closed to prevent dust entering your home.
- Stay in an air-conditioned environment if possible and ensure air conditioner filters are maintained.

- If you are an asthmatic or have a respiratory condition and develop symptoms such as shortness of breath, coughing, wheezing or chest pain, follow your prescribed treatment plan. If symptoms persist, seek medical advice.

*Particle levels (PM_{10}) can be checked on the EPA website at: http://www.epa.vic.gov.au/air/bulletins/aqbhour.asp or http://www.epa.vic.gov.au/air/bulletins/bulletin_t.asp.