

Poor air quality – whose problem is it?

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It's a problem

We don't normally give much thought to breathing and what we actually breathe into our bodies; but this essential activity provides a direct route of entry from the outside world into the innermost parts of our body; so perhaps it deserves a little more consideration than we tend to give it.

We would be appalled at the idea of drinking dirty water, but we would rarely give a second thought to breathing dirty air; probably because we don't normally have much choice – we can go quite a long time without taking a drink, but most people can't go more than a minute or two without taking a breath!



It's not as bad as in the old days

The reality today for most people in the UK is that the air we breathe is quite clean most of the time. It's certainly a lot cleaner now than it was in the 1950s, when household coal fires and factory chimneys belched out smoke creating suffocating smog, especially in the heavily built-up areas. In those days poor air quality could kill you in days, or even hours.

It's affecting our health, particularly that of our children

Nowadays the main cause of poor air quality is road traffic fumes; the signs of poor air quality are less obvious and its effects on health are more subtle. Instead of dozens of people suddenly falling ill with respiratory or heart failure on certain 'bad air' days, poor air quality now affects hundreds of people all year round in some places, where long term exposure to traffic fumes commonly aggravates asthma and increases coughs and bronchitis. Also, certain heavy metals and organic pollutants from vehicle emissions can have adverse effects on the development of the nervous system and behaviour in children. Smoking aside people don't generally have much choice about whether or not they breathe dirty air. Those living near major roads are most affected by pollution; but even people living where the air is cleaner are exposed to pollution when using the roads, whether they drive a car or get around by cycling or walking.



What are the air pollutants?

The five main pollutants are:

Pollutant	Health effects
sulphur dioxide	these gases irritate the airways of the lungs,
nitrogen dioxide	increasing the symptoms of those suffering from lung diseases
ozone	tends to cause eye and airway irritation and can aggravate asthma and hay fever
carbon monoxide	prevents normal transport of oxygen by the blood and can reduce the supply of oxygen to the heart, especially in people with heart disease
particulate matter (PM10)	fine particles can be carried deep into the lungs where they can cause inflammation and worsening of heart and lung disease

How might air pollution affect me?

The table above describes the possible effects that pollution may have on the body when levels are high.

If your health is good, the levels of air pollution we usually experience in the UK are unlikely to have any serious short-term effects. But on those occasions when air pollution levels are high, some people may feel eye irritation, others may start to cough, and some may find that breathing deeply hurts.

People with lung diseases or heart conditions are at greater risk, especially if they are elderly. Daily changes in air pollution trigger increased admissions to hospital and contribute to the premature death of those who are seriously ill. How can I reduce the effects of pollution on my health?

- Smoking is likely to have a much more serious effect on your health than air pollution.
 Giving up smoking will reduce your risk of lung and heart disease considerably.
 It will also make you less vulnerable to the short-term effects of air pollution.
- In winter traffic fumes make breathing harder, so avoid busy streets as much as you can. If you are elderly, stay indoors as much as possible in the cold weather and keep warm.

In summer you may find it harder to breathe on hot sunny days, so avoid energetic outdoor activities, especially in the afternoons when pollution levels tend to be higher. If your child has asthma, they should still be able to take part in games as normal, but they may need to use their reliever inhaler more before they start. They do not need to stay away from school.

What can be done to combat poor air quality?

Action to improve air quality can be taken at three levels:

1. Government sets the framework for local action to reduce air pollution through the Air Quality Strategy for England, Scotland, Wales and Northern Ireland and has set stricter standards for emissions from motor vehicles and industry.

- Local authorities monitor and assess air quality and prepare action plans where they identify pollution hotspots known as 'Air Quality Management Areas' (AQMAs). Fareham has identified two AQMAs due to high levels of nitrogen dioxide from traffic on congested roads.
- 3. Individuals can help reduce pollution levels by switching to cleaner fuels or, better still, by changing their behaviour to reduce private motor vehicle use.

What can I do to reduce air pollution?

Road vehicles are the main source of pollution in most urban areas.

- 1. Before using your car, ask yourself:
 - Do I really need to make this journey?

- Could I walk or cycle instead of taking the car and get fitter at the same time?
- Could I take a bus or train?
- Are the levels of air pollution already too high today?
- □ Could I car share?

2. If you must drive:

- Drive smoothly. You'll save fuel, and your engine will also pollute less;
- Don't rev your engine unnecessarily;
- Maintain your car. Keep the engine properly tuned and the tyres at the right pressure; and
- Turn off the engine when your car is stationary.
- Think of alternative fuels, e.g. hybrid and electric cars.

Why should I change?

It's important to switch to more sustainable ways of travelling because:

- It helps to make the air safer and more pleasant for people to breathe, especially those who live, work, or are educated close to major roads, or who are regular road users themselves;
- For those who are able, making journeys on foot or by bicycle provides valuable exercise to keep their bodies healthy and combat serious health problems such as

being overweight, obesity, diabetes and heart disease;

- The carbon cost of more sustainable modes of travel (e.g. public transport, walking or cycling) is much less than using a private car, so reducing car use will help to conserve dwindling resources of fossil fuels;
- It reduces traffic congestion on our roads to enable essential traffic, such as buses and emergency services to move more quickly and easily;
- As the cost of fuel will continue to increase it will save us a lot of money.

