

Air pollution guidance for school staff

Why do we need this guidance?

Levels of air pollution across the UK are at unsafe and illegal levels. Every year in the UK, it's estimated that the equivalent of 40,000 early deaths can be linked to breathing polluted air. Air pollution can stunt the growth of babies' and children's lungs. It can put them at risk from long-term lung damage, both at school and as they travel to school.

We've produced this guidance so school leaders, school staff, governing bodies, local authorities and academy trusts can work together to protect pupils and meet relevant [health and safety legislation](#).

How does air pollution affect children?

Children are extremely vulnerable as they tend to breathe faster than adults, and their lungs are still growing.

Air pollution is hugely damaging for all our health. From conception throughout our lives, being exposed to air pollution can increase everyone's risk of getting lung cancer and cardiovascular disease.

Buggies and prams can often put children level with car exhaust emissions. There can also be high pollution levels inside cars in which they're driven to school.

If a child breathes high levels of air pollution over a long period, they are at risk of:

- their lungs not growing and maturing properly
- repeated infections, coughs and wheezing
- lung conditions like asthma getting worse

They might also be at risk of:

- developing asthma during childhood or as an adult
- lung cancer, heart disease, and possibly even diabetes, when they're older



What is air pollution?

An air pollutant is any substance in the air that could harm people. **Particulate matter, known as PM**, and **nitrogen dioxide** are particularly damaging. High concentrations of pollutants can be found in most UK towns and cities. Most pollution in urban areas comes from vehicles.

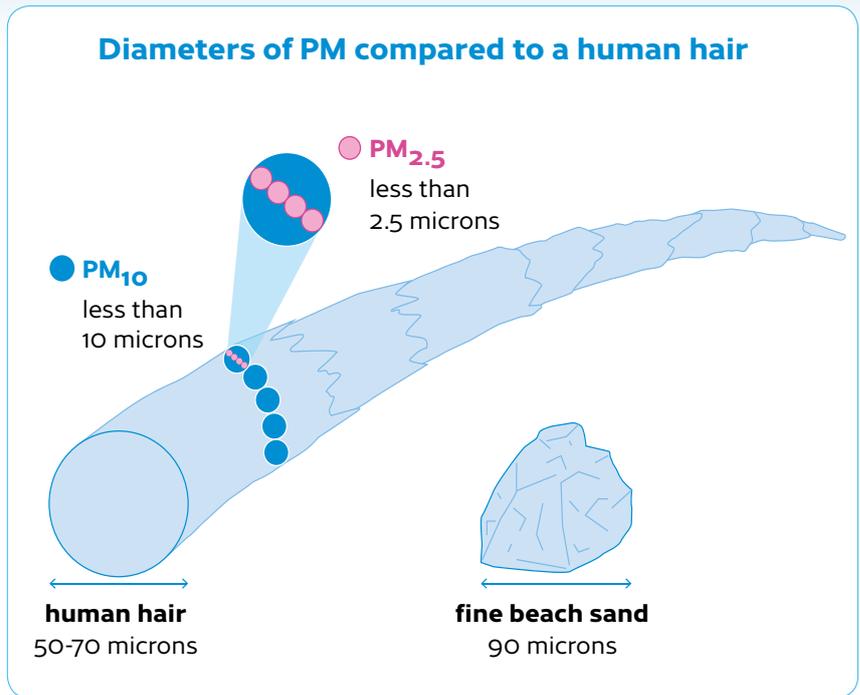
The amount of air pollution varies with the weather and the season. For example, pollution gets more concentrated during still, sunny or foggy weather. Air pollution is especially harmful to people who are living with a lung condition, such as [asthma](#), and older people as well as children and babies.

What is particulate matter?

Particulate matter is a complex mixture of solids and liquids, including carbon, complex organic chemicals, sulphates, nitrates, mineral dust, and water suspended in the air. Concentrations across the UK are much higher than the levels the **World Health Organisation** considers safe.

What is nitrogen dioxide?

Nitrogen dioxide (NO₂) is a poisonous gas. Since 2010, the UK has exceeded EU annual legal limits for nitrogen dioxide.



What can school leaders and staff do to protect pupils?

The law requires school employers to protect pupils against risks to their health, so schools should have a policy on reducing risks to health from air pollution. Head teachers and school leaders should create an action plan, involving pupils, parents, governors, teachers, support and maintenance staff, and policymakers.

Understand the problem and stay aware

Hard statistics and data can help school leaders and staff communicate with parents and decision makers.

- Installing air pollution monitors will help school leaders and staff understand when pollution is worst and which measures could be the most effective at your school. There are three main types of monitors:
 - Nitrogen dioxide tubes measure the average monthly concentration in a particular area. Ask your local authority if they can install one – they are responsible for local monitoring.
 - Real-time monitors measure particulate matter and nitrogen dioxide. They can provide really useful data, but they tend to be more expensive.
 - Citizen science monitors. There are lots of affordable new monitors on the market. They aren't always able to give as robust readings as government monitors, but they are good at showing you where pollution is worst and in mapping cleaner routes to school.
- The Department for Environment and Rural Affairs (DEFRA) publishes **air pollution alerts** and **forecasts**. They tell you when pollution levels are high. This can help you to make decisions about outside PE lessons and sports days. It's also important to closely monitor vulnerable pupils – such as those with asthma, cystic fibrosis and bronchiectasis – on these days.



Travelling to school

Schools should have an individual school travel plan (STP). This sets out how school leaders and staff can encourage safe and active travel to reduce air pollution round your school. For example school leaders and staff can:

- discourage the use of cars to bring children to school, and promote cycling and walking where possible
- find and publicise safe walking and cycling routes that avoid heavy traffic
- identify public transport for travel to school, extracurricular activities and school trips
- encourage car sharing
- remind parents that babies and children in buggies are at greater risk due to their proximity to exhaust pipes
- make sure there is enough parking for scooters and bikes
- discourage parents from parking outside the school gates
- ask parents to turn off engines at the school gates
- create incentives and run competitions to encourage safer travel
- advise parents that face masks are not usually effective as tiny pollution particles are often able to get in the side. More research is needed in this area

Apps and online tools can help you plan less polluted routes. In London, you can use this [online map](#) and [CityAir app](#). Ask your local authority what is available in your area.

Living Streets offers [projects, resources and incentives](#) to encourage pupils to walk to school. Sustrans have [resources for schools and parents](#) about how to transform the school run.

What can school leaders and employers do to protect pupils?

There are lots of infections and conditions that can affect children's lungs. To find out more visit the [British Lung Foundation's children's hub](#).

Some pupils living with lung conditions will have individual plans, including pupils living with asthma and cystic fibrosis.

- Pupils with **asthma** should have their inhaler either on them or nearby at all times. Schools are allowed to hold a spare salbutamol inhaler for emergency use, provided that parental consent has been given for its use in an emergency. The National Education Union has [guidance on asthma in schools](#).
- It's essential that pupils living with long-term lung conditions like **cystic fibrosis** or **bronchiectasis** have a plan in place to be safe at school. Cystic Fibrosis Trust have a template for a [health care plan](#).

Emissions

Your school could be contributing to local air pollution through:

- boilers and generators
- vehicles making deliveries
- garden equipment
- air conditioning systems
- kitchens and canteens

Schools could tackle this by monitoring use and setting targets to reduce energy demand and waste. For instance, improvements could include:

- installing energy-efficient appliances and light bulbs, insulation and draught-proof windows
- reducing energy waste by switching off computers and appliances when they're not in use, installing motion-sensitive lights and self-regulating radiator valves to control temperature
- using fuel efficient vehicles and sourcing local produce

[The Carbon Trust](#) has a guide on how to increase energy efficiency in schools.

[The Sustainable Energy Across the Common Space Project](#) has developed resources with schools and local authorities to reduce energy usage.

Resources for teachers

Lesson plans and campaigning

Lessons on air pollution and its effects can be linked to the National Curriculum in science, PSHE or citizenship, English and geography. Teachers can hold clean air assemblies, and encourage pupils to talk to their parents and write to their MP, AM, MSP or MLA.

- The British Lung Foundation and ClientEarth run a network of parent campaigners on air pollution. Schools can email campaigns@blf.org.uk to join the network.
- Check if your school is near a polluted road with ClientEarth's [map of poisoned playgrounds](#).
- Greenpeace offer an [Air Pollution teaching pack for KS2](#).
- Friends of the Earth offer a [clean air plan and kit](#).

Further resources

Internal air quality

- [DfE guidelines on internal air quality in schools](#) give information on relevant health and safety legislation, and when internal air filtration systems may be appropriate.

New buildings and developments

- [NICE guidelines on external air pollution](#) recommend buildings are built away from busy roads and schools are built in areas where air pollution is low.
- [The Institute of Air Quality Management](#) recommends that school buildings are built 100 metres from roads to reduce exposure to air pollution.

Find out more at blf.org.uk or call our helpline on 03000 030 555. Sign up to our campaign for cleaner air at blf.org.uk/clean-air



in partnership with



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