



Air pollution guidance for school and college 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 up to 36,000 early deaths can be linked to breathing polluted air.

Exposure to air pollution can harm normal growth of lung function in the womb, during childhood and right up to the late teens. Children are at risk from long-term lung damage, both at school and as they travel to school. Over 2,000 schools and nurseries in England and Wales are located in areas with illegal levels of pollution.

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

Why are children more vulnerable to air pollution?

Children are especially vulnerable to air pollution because:

- their airways are smaller and still developing
- they breathe more rapidly than adults
- buggies and prams put them at the level of car exhausts

On the school run, children may be exposed to air pollution while they walk, scoot or cycle, but they may be exposed to even higher doses when travelling in a car.

How does air pollution affect children's health?

Air pollution is hugely damaging to everyone's health. From conception throughout our lives, being exposed to air pollution can increase health risks for people of all ages.

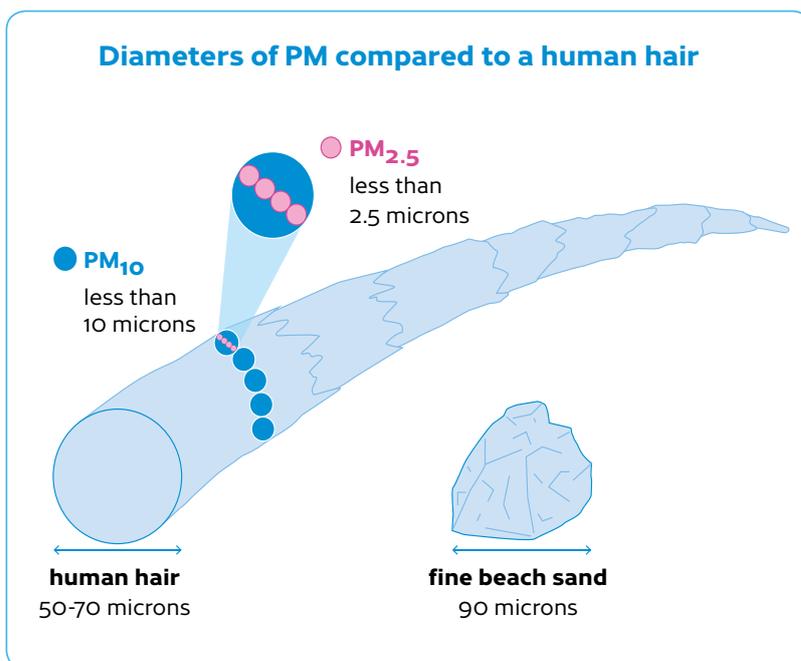
If a child breathes high levels of air pollution over a long period, they might be at risk of:

- their lungs not working as well when they're older
- developing asthma during childhood or as an adult - and if they have asthma already, air pollution can make it worse
- wheezing
- coughs
- lung cancer, heart disease and possibly even diabetes when they're older
- infections like pneumonia

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 have lots of research around their harmful effects. Harmful 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 becomes 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 Organization](#) 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. The latest statistics show that 86% of areas measured have levels above the legal limit.

What can school and college 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 policy makers. Of course, measures taken to protect pupils will also benefit staff.

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 you understand when pollution is worst and which measures could be the most effective at your school. There are three main types of monitors:
 - NO₂ diffusion tubes measure the average monthly concentration in a particular area. Ask your local authority if they can install one – they are responsible for monitoring local air quality.
 - Real-time monitors measure particulate matter and nitrogen dioxide. They can provide really useful data, but they tend to be more expensive. Ask your local authority about what data is available in your area.
 - Citizen science monitors. There are lots of affordable new monitors on the market. They aren't 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.

School leaders and staff can:

- create a school street outside your school that's closed to traffic. Living Streets has a [handy how-to guide](#).
- set up a [park and stride scheme](#) or a walking bus to reduce the need for driving to the school gate.
- 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.
- identify public transport for travel to school, extracurricular activities and school trips.
- encourage car sharing.
- 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, such as taking part in [Living Streets' year-long walking challenge](#), WOW.
- advise parents that face masks are not usually effective as tiny pollution particles are often able to get in the side and more research is needed in this area.

Apps and online tools can help you plan less polluted routes. Ask your local authority what is available in your area.

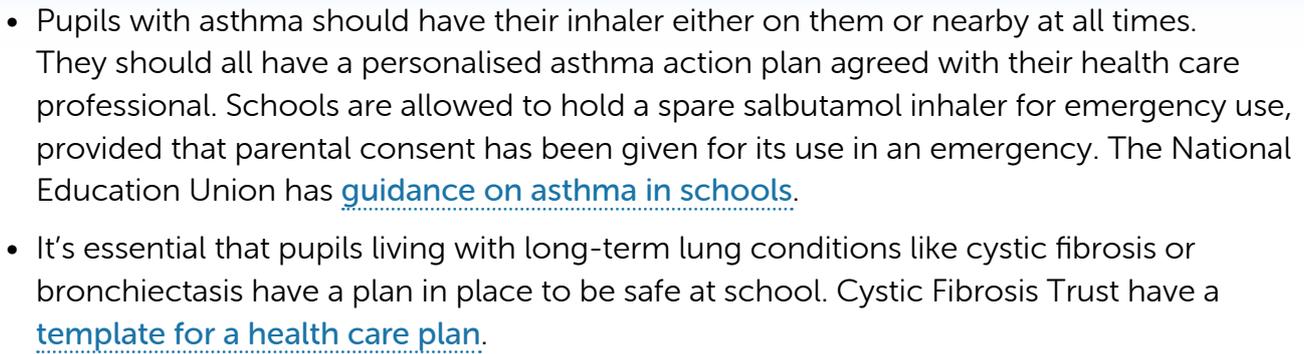
What can school leaders and employers do to protect pupils and staff?

The government and local council are responsible for tackling air pollution, but there are things that schools can do to help.

Offer support to manage health conditions

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

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

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- Pupils with asthma should have their inhaler either on them or nearby at all times. They should all have a personalised asthma action plan agreed with their health care professional. 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](#).

Integrate air pollution into lesson plans and campaign for change

Lessons on air pollution and its effects can be linked to the National Curriculum in science, PHSE or citizenship, English and geography. Teachers can hold clean air assemblies, and encourage pupils to talk to their parent and write to their MP, AM or local councillors. Some councils are now working centrally to reduce air pollution around schools. It's worth approaching your council to find out what's being done in your area.

Resources for teachers

- The [Clean Air Parents' Network](#) has campaign resources for parents, carers and schools to use, including a map of polluted schools.
- Greenpeace offer an [Air Pollution teaching pack](#) for KS2.
- [Living Streets has produced a report](#) on the benefits of active travel on the school run.
- Find out about what's being done in London to [clean up pollution around schools](#) for ideas and inspiration for your area.

Be aware of air quality in your school or college

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.

Reduce emissions

Your school or college could be contributing to local air pollution through:

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

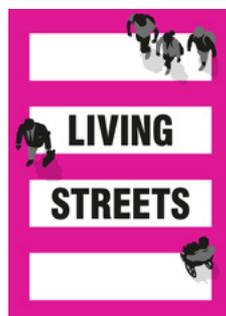
Schools and colleges could tackle this by monitoring use and setting targets to reduce energy demand and waste. For instance, improvements could include:

- 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.

Find out more at blf.org.uk or call our helpline on [03000 030 555](tel:03000030555). Sign our campaign for cleaner air at blf.org.uk/clean-air



Reviewed: September 2019
Due for review: September 2022