# What are the key causes of pollution and which pollutants are the most harmful to health?

Probably the two pollutants which are cause for concern to human health are Nitrogen Dioxide (NO2) and particulate matter (PM2.5). These two pollutants can be ingested deep into the lungs of humans and cause potential negative health effects.[[1]](#footnote-0)

The issue of NO2 in particular for human health is so highly regarded that there are strict EU limits on the levels of the pollutant as a measure of micrograms per cubic meter (µg/m3). These limits are 200 averaged across an hour, and 40 averaged across a whole year.[[2]](#footnote-1) The UK as a whole has been in violation of these EU limits since they were imposed in 2010.

High levels of pollution can cause massive harm to human health, with 400,000 premature deaths each year being attributed to pollution. In addition to this, relating to the creation of our app, 100 million workdays are lost yearly through illnesses brought on by pollution such as asthma.[[3]](#footnote-2) In particular NO2 can irritate the airways of the lungs and can increase the symptoms of pre-existing lung diseases. PM2.5 can also be carried into the lungs and cause inflammation. It can also lead to an increased risk of heart and lung diseases.[[4]](#footnote-3)

Probably the two main causes of air pollution in London are caused by the burning of coal through chimneys of houses and factories. The other key inner city cause of air pollution is from vehicular activities. Vehicles burn large amounts of fuel, and given there were over 10 million car journeys made in London every day on average in every year from 1993-2007[[5]](#footnote-4), this means the aggregate amount of fuel burnt is huge.

Other key causes of air pollution are less prevalent in central London, however could be contributing to high levels of air pollution across the rest of the UK. These pollution causes are: Agricultural activities, for example the use of pesticides and fertilizers release chemicals into the air. Another key polluter is the mining industry. The extraction of minerals from the ground causes large amount of dust and chemicals into the air.[[6]](#footnote-5)

1. <http://www.bbc.co.uk/news/business-34455338> [↑](#footnote-ref-0)
2. <http://ec.europa.eu/environment/air/quality/standards.htm> [↑](#footnote-ref-1)
3. <http://www.bbc.co.uk/news/science-environment-26257703> [↑](#footnote-ref-2)
4. <http://uk-air.defra.gov.uk/air-pollution/effects> [↑](#footnote-ref-3)
5. <http://content.tfl.gov.uk/Travel-in-London-report-1.pdf> [↑](#footnote-ref-4)
6. <http://www.conserve-energy-future.com/causes-effects-solutions-of-air-pollution.php> [↑](#footnote-ref-5)