Air pollution increases risk of death in Gothenburg

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People who live where there are high levels of air pollution have an increased risk of dying prematurely. Air pollution levels in Gothenburg have, however, decreased by half in the past few decades. A doctoral thesis at Sahlgrenska Academy has compared the link between air pollution and mortality in 7 500 men.

We are exposed daily to air pollution from motor vehicle traffic, heating and industry that increases the risk of cardiovascular and pulmonary diseases. In Gothenburg and Sweden, air pollution levels are lower than in many other parts of the world.

In his thesis, Leo Stockfelt, Doctor and PhD student at Sahlgrenska Academy, University of Gothenburg, studied the link between air pollution and mortality in 7 500 older men in Gothenburg, between 1973 and 2007.
200 extra deaths per year in Gothenburg

The results show that men who had higher levels of air pollution where they lived were at greater risk of dying prematurely. On average, air pollution was estimated to have caused approximately 200 extra deaths per year in Gothenburg, over the past 40 years.

"In Gothenburg, air pollution levels are lower than in many other parts of the world, but we still see an association with an increased risk of death. Moreover, we do not see any signs of a safe level, but rather that improvements are beneficial at all levels. This shows how important it is to reduce air pollution emissions," says Leo Stockfelt, who emphasizes that on the individual level, there is no cause for alarm:

"Those who live centrally should not be particularly worried about their own health, as the increased risk is small compared to other risk factors, for each individual. But as everyone is exposed to air pollution daily, it is an important public health issue.

Wood smoke has negative effects

In another study, 16 people were exposed to wood smoke to examine if it affected biomarkers indicating inflammation in the lungs or body. The study showed that wood smoke has negative effects on the airways.

"The finding is consistent with the epidemiological studies that have seen increased numbers of respiratory diseases from exposure to wood smoke, for example, from forest fires. Residential wood burning is a major source of air pollution, so it is important that we burn wood in a way that minimises emissions," says Leo Stockfelt. Risks from wood smoke are greatest for those who already have asthma or other respiratory diseases.