

Living near a landfill could damage your health

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According to research published today in the *International Journal of Epidemiology*, health is at risk for those who live within five kilometres of a landfill site.

Researchers in Italy evaluated the potential health effects of living near nine different landfills in the Lazio region, and therefore being exposed to [air pollutants](#) emitted by the waste treatment plants. 242,409 people were enrolled in the cohort from 1996 to 2008.

The results showed a strong association between Hydrogen Sulphide (used as a surrogate for all pollutants co-emitted from the landfills) and deaths caused by [lung cancer](#), as well as deaths and hospitalizations for [respiratory diseases](#). The results were especially prominent in children. The annual average exposure levels of Hydrogen Sulphide was 6.3 ng/m³, compared to people living close to larger landfills in Rome whose levels averaged 45.ng/m³. At the end of the follow-up period there were 18,609 deaths.

Co-author Francesca Mataloni commented that, "The evidence on the health of those living near landfills is still controversial. Most of the published studies only use aggregate health data and do not adjust for social-economic status. We have used a residential cohort approach to attempt to overcome these limitations."

Respiratory symptoms were detected among residents living close to waste sites. These were linked to inhalation exposure to endotoxin,

microorganisms, and aerosols from waste collection and land filling. This is consistent with other studies; however the association between living proximity to landfill sites and cases of lung cancer is a new finding. The authors stressed that further studies need to be completed to confirm this.

More information: Karen A Lillycrop et al, Association between perinatal methylation of the neuronal differentiation regulator and later childhood neurocognitive function and behaviour, *International Journal of Epidemiology* (2015). [DOI: 10.1093/ije/dyv052](https://doi.org/10.1093/ije/dyv052)

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