

Incineration emissions and health effects

Public Health Wales' view

Emissions from modern, well-managed and regulated incinerators are not a significant risk to health. While it is not possible to rule out adverse health effects from such facilities with complete certainty, any potential health effects on those living close-by are likely very small.

This Public Health Wales opinion – which is similar to that of other UK public health agencies – is based on detailed assessments of the effects of air pollutants on health and on the fact that these incinerators make only a very small contribution to local concentrations of air pollutants.

More information

Major studies on incineration and health (conducted by the Small Area Health Statistics Unit (SAHSU) at Imperial College London) were published in 2019 which added to the evidence in this field of research.

The first two papers (see links below) found no evidence of an increased risk of infant mortality for children living close to municipal waste incinerators. The third and final paper (see link below) found no evidence of increased risk of congenital anomalies from exposure to municipal waste incinerator emissions, but suggested a small potential increase in risk of congenital anomalies for children born within ten kilometres of municipal waste incinerators. The authors acknowledged that this finding may be down to not fully adjusting the study for all possible influencing factors which could include local sources of pollution other than incinerators and deprivation status. Importantly, a causal association between the increased risk of congenital anomalies for children born close to municipal waste incinerators has not been established.

Links to research papers:

<https://www.sciencedirect.com/science/article/pii/S0160412018316398>

<https://www.sciencedirect.com/science/article/pii/S0160412018326060>

<https://www.sciencedirect.com/science/article/pii/S0160412019308104?via%3Dihub>

Collaboration beyond Wales

Public Health Wales will continue to work closely with other UK public health agencies to keep this position under review.

Public Health England has [further information](#) about this topic on their webpages.

Health Protection Scotland has [further information](#) about this topic on their webpages.