

Power lines don't raise risk of leukaemia in children

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(Medical Xpress)—Children who live near overhead power lines in early life do not have a greater risk of developing childhood leukaemia, researchers from the Childhood Cancer Research Group at the University of Oxford have found.

Their study in the *British Journal of Cancer* found no increased risk of [leukaemia](#) in children born since the 1990s whose mother lived within a kilometre of overhead [power lines](#).

The study included nearly 16,500 children who were diagnosed with leukaemia in Britain between 1962 and 2008.

An earlier study using information on [childhood leukaemia](#) diagnosed between 1962 and 1995 had suggested that there was an elevated risk for children born within 600 metres of overhead power lines. This new study includes children diagnosed up until 2008, and finds that children born after the 1980s don't have an increased risk.

This strongly suggests that there is no direct biological effect of power lines on leukaemia risk.

The previous findings could be explained by changes in the characteristics of people living near power lines, be down to chance or problems with the study design.

Lead author Kathryn Bunch said: 'It's very encouraging to see that in recent decades there has been no increased risk of leukaemia among children born near overhead power lines.

'More research is needed to determine precisely why previous evidence suggested a risk prior to 1980, but parents can be reassured from the findings of this study that overhead power lines don't increase their child's risk of leukaemia.'

The study used cancer information drawn from the National Registry of Childhood Tumours, which has kept records of nearly all children diagnosed since 1962, linked with birth records for those born in Britain. The registry is estimated to be more than 99% complete for leukaemia

over the many decades included in this study.

Overall, leukaemia is the 11th most common cancer in the UK, but it accounts for around a third of all cancers diagnosed in children. Around 460 new cases of leukaemia are diagnosed in children under the age of 15 each year in Great Britain.

Dr Julie Sharp, Cancer Research UK's head of health information, said: 'There has been a lot of concern that overhead power lines could increase the risk of [cancer](#), particularly leukaemia, in children.

'This study is reassuring for anxious parents, as it indicates that overhead power lines don't cause leukaemia or other cancers in children.'

More information: "Residential distance at birth from overhead high-voltage powerlines: childhood cancer risk in Britain 1962–2008." K J Bunch, T J Keegan, J Swanson, T J Vincent and M F G Murphy *British Journal of Cancer*, (6 February 2014). [DOI: 10.1038/bjc.2014.15](https://doi.org/10.1038/bjc.2014.15)

Provided by Oxford University

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