

Childhood leukaemia risk doubles within 100 metres of high voltage power lines - damning results known for 3 years

The biggest ever publicly funded UK study [1] into power lines and child cancer has found that children under the age of 15 living within 100 metres of high-voltage power lines have close to twice the risk of developing leukaemia. Children aged 0-5 are the most vulnerable so their risk is likely to be even higher.

This result from the OXFORD CHILDHOOD CANCER RESEARCH GROUP study, headed by Gerald Draper analysed and compared 33 years of data (from 1962 to 1995) on 35,000 children diagnosed with cancer, with their distance to the nearest electricity transmission line. These latest findings from the Draper study of a direct effect on childhood leukaemia from U.K. power lines follow from the acknowledged International studies that the risk of childhood leukaemia is doubled for magnetic field exposures above 0.4 microtesla, well below that seen under high voltage powerlines.

We have learned that “ preliminary results” of the latest Draper study, funded to run from 1997-2001 were known as long as 3 years ago and were formally shown confidentially to the U.K. Department of Health in May 2003, but to date has not as yet been entrusted to the public.

We of the Trentham Environmental Action Campaign, an independent research and activist group, concerned about adverse health effects from power-lines, believe it to be absolutely scandalous that 3 years after telling the Department of Health of these latest U.K. findings, it is only as a consequence of our intervention that we are now able to make these findings public. There appears to have been a determination to withhold the Draper Report for as long as possible.

Trentham has a high voltage powerline crossing many of the houses and there are a significant number of households with young children within 100 metres of the line. Our concerns are also shared by REVOLT, Powerwatch and Electromagnetic Hazard and Therapy, organisations which have also voiced concerns about the health risks of electromagnetic fields for many years.

Our campaign group has been in constant contact with the Government, Mr George Hooker at the Department of Health and the National Radiological Protection Board [NRPB]. We have also been deeply disappointed in the organisations’ continuing denial of the problem despite their knowing about these new study results. The NRPB already acknowledges that there is international consensus on the fact that the incidence of childhood leukaemia is doubled at a magnetic field of 0.4 microtesla, which is exceeded under most powerlines. In March 2004, the NRPB reduced the national magnetic field exposure guidelines from 1,600 microtesla to 100 microtesla [3]. They said “*In the light of these findings (the association between exposure to magnetic fields and childhood leukaemia) and the requirement for additional research, the need for further precautionary measures should be considered by government*”. However, 100 microtesla is still 250 times higher than the level (0.4 microtesla) at which the risk of developing childhood leukaemia is doubled.

Electromagnetic fields from powerlines are also linked to adult cancers, depression and suicide. Our Trentham group carried out a local survey which produced extremely worrying results. Depression, miscarriages, headaches, insomnia (with its attendant chronic health problems due to immune system damage) were much more common in the people who lived near the powerline, compared with those who lived further away. Some of these health problems were also found in the important California Health Department report [4] of 2002.

The leukaemia link has now been repeatedly demonstrated. The government should take our nation's health seriously enough to stop allowing houses to be built near high-voltage lines and to remove overhead powerlines from residential areas.

The Minister for Housing and Planning, Keith Hill, in a letter dated July 2004, said "*We are aware that there is continuing debate about the effect of living under power lines and whether this can have adverse long-term health effects. We are of the opinion that power lines are unlikely to have significant effects on the environment*". Is this a government statement about people's health or about the environment? Is this confusion, or spin?

It is time the government and planners took the health issue seriously, and reversed their policy of favouring developers, clearly ignoring the risk to children's health. New housing near powerlines should be restricted, and existing lines through residential areas phased out.

Only 50 years ago developing childhood leukaemia was an almost certain death sentence. Due to dramatic improvements in treatment, about 80% of children who suffer from the most common form of childhood leukaemia (ALL, acute lymphoblastic leukaemia) now live for more than 5 years after treatment, but childhood leukaemia remains the largest child killer disease. Survivors often suffer ongoing adverse health complications. The number of children developing leukaemia has been steadily growing over the last 50 years. In 2001, Dr Sam Milham reported [5] a link between the growth in electricity supply and the growth in leukaemia incidence in the USA.

We ignore this at our peril.

- [1] Draper G, Vincent T, Kroll M & Swanson J - *Childhood cancer and electromagnetic field exposures from powerlines* – Department of Health funded 1997-2001, RRX 46 (as yet still unpublished)
- [2] International Scientific Conference on the incidence, causal mechanisms and prevention of childhood leukaemia and other cancers. Westminster, 6-10th September 2004. See: www.leukaemiaconference.org
- [3] See: www.nrp.org for details of their announcements and downloadable publications
- [4] Neutra R R, DelPizzo V & Lee G M – *An Evaluation of the possible risks from electric and magnetic fields (EMFs) from power lines, internal wiring, electrical occupations & appliances*, 2002, California Department of Health & Human Services, The Program, Oakland, California. <http://www.dhs.ca.gov/ehib/emf/RiskEvaluation/riskeval.html> See commentary on: www.electric-fields.bris.ac.uk
- [5] Milham S & Ossiander E M – *Historical evidence that residential electrification caused the emergence of the childhood leukaemia peak* Medical Hypotheses, 2001, **56**(3) 290-295

Further information about powerlines and health problems (including the Trentham survey) can be found on the following websites

TEAC <http://www.revolt.co.uk/trentham> Media (only) Tel: 01782 658648 Mobile 07963915428
(Maureen A)

EMH&T <http://www.em-hazard-therapy.com> Simon Best 01730 816 799 (media only)

Powerwatch <http://www.powerwatch.org.uk/contents.asp>

REVOLT <http://www.revolt.co.uk>

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