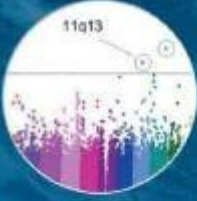


Tubelight  
And  
Tester  
Glow Under  
400 kv  
hv powerline  
DUE TO EMF





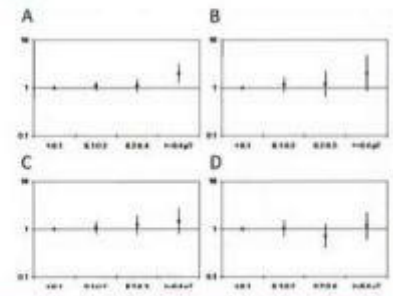
# World Cancer Report 2014

Edited by BERNARD W. STEWART and CHRISTOPHER P. WILD

International Agency for Research on Cancer  
World Health Organization

From <http://dx.doi.org/10.1093/monographs/monograph14>

**Fig. 2.8.6** Comparison of results from pooled analyses of epidemiological studies of residential exposure to extremely low-frequency magnetic fields and the risk of child leukaemia (A) or childhood leukaemia (B), (C) childhood leukaemia (D) including (E) and excluding (F) studies from Group 1 and (G) childhood leukaemia (H). Pooled odds ratios and their 95% confidence intervals (ext) are shown by frequency levels of exposure to extremely low-frequency magnetic fields reference category:  $< 2 \mu\text{T}$ .



and broadcasting. Normal residential background exposure to extremely low-frequency magnetic fields is usually below  $0.1 \mu\text{T}$ . A small fraction of households located very close to high-voltage power lines or other sources can have appreciably higher background exposures. Higher but short-term exposures occur when electrical devices are used and may also be experienced in particular categories of work, such as by electricians and electrical engineers. For most people, the highest exposure to radiofrequency electromagnetic fields occurs when using mobile cell phones because the source of emission is held close to the head. Much lower levels of exposure arise from transmitters, but field strength may exceed 1 V/m even at points several kilometres from high-output television or radio broadcast transmitters. The number of sources continues to increase with further use of the whole electromagnetic frequency spectrum.

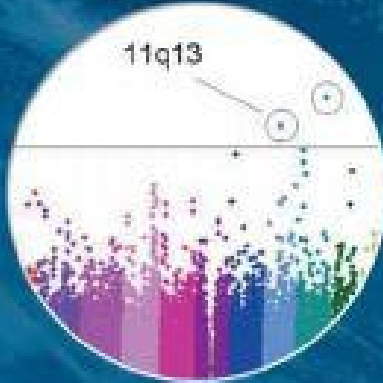
### Cancer risk

Studies have been conducted in residential settings by investigating cancer risk in relation to the nearest overhead high-voltage power lines and the resulting magnetic fields, as well as in occupational settings that involve electrical work. Epidemiological studies have consistently recorded a positive association of extremely low-frequency magnetic fields with childhood leukaemia, with an overall only 2-fold higher risk at average 24-hour exposure levels exceeding  $0.3-0.4 \mu\text{T}$  (Fig. 2.8.5) [22-25]. However, a causal relationship has not been established due to the potential for bias and confounding in the observational studies and because supporting evidence from experimental studies and mechanistic data are lacking [26]. If a causal association did exist, it is estimated that  $< 1-4\%$  of childhood leukaemia cases could be attributable to exposure to extremely low-frequency magnetic fields [27]. The 2001 IARC Monograph on extremely

low-frequency magnetic fields classified them as possibly carcinogenic to humans (Group 2B); the evidence for other types of malignancy was evaluated to be inadequate. Other reviews came to similar conclusions later [22, 28]. Recent studies have not shown an effect of exposure to extremely low-frequency magnetic fields on survival after childhood leukaemia [29].

In the 2001 IARC Monograph evaluation, extremely low-frequency electric fields and static electric and magnetic fields were considered not classifiable as to their carcinogenicity to humans (Group 3). Since 2001, there have been few studies relevant to these evaluations and none suggest a basis for re-evaluation, as recently reflected by an expert panel of the European Commission [28].

Radiofrequency electromagnetic fields have been classified as possibly carcinogenic to humans (Group 2B) (see 'An IARC announcement that made waves') (Fig. 2.8.6). Case-control studies on mobile phone use and cancer have reported increased risks of glioma and acoustic neuroma in heavy users of mobile phones [30]. A large Danish nationwide cohort study of mobile phone subscribers did not reveal any association with brain tumour risk. Such an increased risk was suggested from a series of interrelated case-control studies in 13 countries, in which a 40% increased risk for glioma and also for acoustic neuroma was observed, restricted to the 10% of people who were the heaviest users of mobile phones. Several factors, including inaccuracy and evidence of bias in self-reported use, prevented causality being established by these studies [31]. True trends in glioma incidence based on Nordic countries and the USA exclude any large increase in incidence attributable to mobile phone use, albeit with reference to a relatively short time from initiation of exposure. No association was observed between mobile phone use and other cancers. Several studies on occupational



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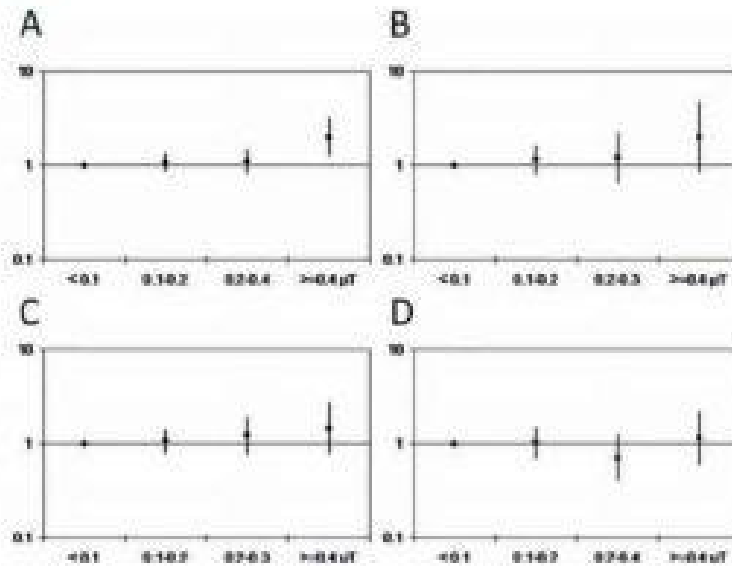
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World Health  
Organization

**Fig. 2.8.5.** Comparison of results from pooled analyses of epidemiological studies of residential exposure to extremely low-frequency magnetic fields and the risk of childhood cancer: (A) childhood leukaemia [23]; (B,C) childhood leukaemia [24], excluding (B) and including (C) a study from Brazil, and (D) childhood brain tumours [25]. Pooled odds ratios and their 95% confidence intervals (vertical axis) are shown by increasing levels of exposure to extremely low-frequency magnetic fields (reference category < 0.1  $\mu\text{T}$ ).



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#### Cancer risk

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Electromagnetic Field Testing"  
(32.2 mG = 3.22  $\mu$ T)

EMF Exposure level Above 0.4  $\mu$ T will affect Human Health  
and Causes Childhood Leukemia, Brain Tumors, etc.  
-World Health Organization



20-Dec-2018 5:23:04 PM  
11°6'37.72055"N 77°12'6.19876"E  
Kannimar Kovil Road  
Elachipalayam, Coimbatore 641659  
India  
Udumalpet to Arasur 400 KV HV Powerline



## DISTRESS CALL

# 'EMR emission by tower line alarmingly high'

**EXPRESS NEWS SERVICE**  
@ Coimbatore

THE farmers protesting against the installation of High Voltage Direct Current (HVDC) transmission tower lines in their agricultural lands say emission of electromagnetic radiation (EMR) has exceeded the normal level of 2 mG.

Slamming the Power Grid Corporation of India for its contention that the radiation level is within permissible limit and does not pose a risk of harm, the farmers have released a video clip wherein EMR level right under an electric tower line in the district is shown at a high of 28.8 mG.

"According to cancer research studies, EMR above 2 mG is harmful for living things especially human beings that it can cause cancer.



This being the case, a random sample reading taken by us using an electromagnetic field tester under a HVDC tower line, that goes to Arasur sub-station, at

### Plans for legal step

Airmunai Young Farmers' Movement has planned to take legal recourse against the HVDC project using the evidence and the members said they would not allow its installation anywhere in the farm lands in the region. Meanwhile, officials have been maintaining that there is no EMR emission

The electromagnetic field tester indicating 28.8 mG of radiation under the tower line at Elachipalayam in Coimbatore | **EXPRESS**

Elachipalayam in the outskirts of the city showed it to be 28.8 mG," said S Sathishkumar, a member of Airmunai Young Farmers' Movement.

He said the high level of radiation emission from the tower line would definitely affect human beings and animals over a period of time though not immediately, but the officials have been maintaining that there is no EMR emission.

The movement has planned to take legal recourse against the HVDC project using the evidence and the members said they would not allow its installation anywhere in the farm lands in the region.

When contacted, a senior official from the electricity board said, "The EMR emission is taken as one of important factors for living things. However, we need to check the veracity of their claims. As regards the calibration, there are some procedural norms before conducting the test and they have to be considered."

**EFFECT OF ELECTROMAGNETIC FIELD  
ON SOME SELECTED CROP PLANTS**

A thesis submitted to  
**MADURAI KAMARAJ UNIVERSITY**  
for the Degree of Doctor of Philosophy

By  
**S. SOMASEKARAN**



Guide  
**Dr. K. Muthuchelian, D.Sc.,**

School of Energy, Environment and Natural Resources  
Madurai Kamaraj University  
Madurai – 625 021, India.

**DECEMBER – 2007**

Plate 8. A photograph showing the effect of EMF from 230 KV and 110 KV power lines on *Vigna unguiculata*.



Control Under 110 KV Under 230 KV



Control Under 110 KV Under 230 KV

ன்

ஆலங்குடி அருகே

## பலாமரத்தில் ஏறிய விவசாயி மின்சாரம் பாய்ந்து சாவு

ஆலங்குடி, மார்ச் 23: ஆலங்குடி அருகே பலாமரத்தில் பலாப் பழம் பறிப்பதற்காக ஏறிய போது உயர் மின்னழுத்த கம்பியில் இருந்து மின்சாரம் பாய்ந்து விவசாயி உயிரிழந்தார்.

புதுக்கோட்டை மாவட்டம் ஆலங்குடி அடுத்த அணவயலை சேர்ந்தவர் தமிழ்செல்வன் (55), விவசாயி. இவர் நேற்று அதே பகுதியில் உள்ள தனது தோட்டத்தில் உள்ள பலாமரத்தில் ஏறி பலாப் பழம் பறிக்க முயன்றார். அப்போது, மரத்தின் அருகே சென்ற உயர் மின்னழுத்த மின் கம்பியில் இருந்து மின்சாரம் பாய்ந்துள்ளது. இதில், மரத்தில் இருந்து தூக்கி வீசப்பட்ட தமிழ்செல்வன் கீழே விழுந்தார். இதில், பலத்த காயமடைந்த தமிழ்செல்வனை அருகே தோட்டத்தில் வேலை செய்து



▶ பலாமரத்தில் ஏறிய போது மின்சாரம் பாய்ந்து உயிரிழந்த விவசாயி தமிழ்செல்வன்.

கொண்டிருந்தவர்கள் பேராலுணி அரகமருத்துமனைக்கு கொண்டு சென்றனர். அங்கு தீவிர சிகிச்சை அளிக்கப்பட்டும், சிகிச்சை பலனின்றி தமிழ்செல்வன் உயிரிழந்தார். இதுகுறித்து வடகாடு போலீசார் விசாரணை நடத்தி வருகின்றனர்.

23: ண் தவி கள் லகர் யில் றது. ண் ஶார் ஶார். ஶாக தற் ஶை ஶங்கு தும் ஶங் ஶிக் ஶ்ப் ஶது. ஶங்க ஶுய ஶன் ஶை ஶாட் ஶலர்

27/3/2018



