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The Electromagnetic Radiation Health Threat - Part II

- Dorothy - 15/5/97

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To download Dr Neil Cherry's reports and to read more about work, please visit his [website](#) for more information.

What has been the reaction internationally to this research? What can be done to ensure that we are not exposed to unnecessary risks from electromagnetic radiation? Dr Neil Cherry discusses some aspects of this question and the importance of our being well informed on the topic. If you have not already—please read [Part I](#) first.

Opposition to publication of the research

The U.S. Air Force ridiculed the idea that electromagnetic radiation could cause illness. The Environmental Protection Agency, the statutory body set

up to protect public health in the U.S., conducted a big review in 1989-90 and published a report recommending that power line ELF's be declared a probable carcinogen, and that microwaves and radiowaves be declared possible carcinogens. This was based on experiments on animals and epidemiology. The White House and the Air Force declared that the report should not be published on grounds of national security and that such a report would alarm the public. The report was put on hold until the administrators of the E.P.A. changed the conclusions to say there was no proven effect. This does not contradict probable and possible effects, but it hides these words. The data remains.



Neil Cherry

Recently funds for the project were cut, but the researchers said that the evidence was now stronger than in 1990. Early in 1995 a study of U.S. Air Force officers exposed to ELF's, RF microwaves and ionising radiation showed a small but statistically significant increase in brain tumours in officers exposed to RF microwaves and ELF's but not in those exposed to ionising radiation. Now even the Air Force is recognising that their highly trained staff are getting more brain tumours.

The statements that Neil makes to the public are not based on fear, but on research, on extensive international studies, and data from work in the laboratory, from animals, from epidemiology.

"It is a matter of national security that public health is protected from avoidable exposures. That to me is a higher level of national security than being able to listen to the Russians, the Indonesians or the Australian trade practices," he said.

This research could well explain why cancer rates in New Zealand are rising because this is one of the few potential carcinogens which we know is rising and everybody is exposed to it. This applies not just in New Zealand, but all round the world. This means that we should be doing our darnedest to get the standards down to make sure that industry does not unwittingly and unnecessarily expose people. This includes making sure that power lines and cell sites are away from houses, hospitals, and schools. Radio and TV towers should be well away from where people live and work so that by the time the signal reaches our radios, TVs and cell phones the signal is so low that it is below that at which we know there is a low, but significant risk of it affecting public health.

How the legal requirements should help

The Resource Management Act 1991 was written for this situation. It says that we are "to avoid, remedy or mitigate any adverse effects of an activity on the environment including any cumulative effect of low potential probability and high potential impactregardless of scale, intensity, duration or frequency". The threat from ELF's is of low potential probability and high potential impact.

Resistance to this application of the law

No one, not even the Courts, wants to accept this as a possibility because the impact on commercial development in New Zealand is that it would be severely curtailed.

What can the individual citizen do to minimise the risk from ELF's?

The first thing is to listen and take the risk seriously. It is difficult because it is odourless, tasteless, silent, colourless, and does not appear to exist until we think about it.

We can minimise our exposure - cut back on our use of cordless phones and cellphones, keep away from the microwave oven when it is not necessary to be close to it, (more than a foot away when it is operating), stop our children from sitting close to the television set or the VDU, and go for low emission screens.

We can get our houses checked out with a meter that will check the ELF's in houses. If our house is not 'quiet' we can contact the electrician to find out why and where. Maybe there is a wiring fault. In New Zealand most houses should be good with our system of AC signals with our wires.

Industry has been acting very responsibly. Lower emission technology is being produced all the time. But if we sit close we will still get above the 2 milligauss standard. This is the level where epidemiology is starting to find some effects like an increase in childhood leukaemia when the emission gets above the two milligauss level near power lines.

What action can our local bodies take to protect us?

We have to get our city and regional councils to take this research seriously. They have the legal power with the Resource Management Act to require that major transmission power lines be moved away from houses and to require that cell sites are placed well away from key places.

The power lines could be routed around cities without technical problems. Money is the only obstacle to this change. A number of other countries have made it a legal obligation to make this change in a staged programme of removal of existing power lines, with no new power lines being located within cities.

Neil's recommended public health protection standard for RF microwaves is 0.1 microwatts per sq. cm.

Who is setting the standard that allows it to be 200 and wanting it now to go up to 500 for cell sites?

Do you know that the Standards Committee includes Telecom New Zealand, BCL New Zealand, and Telstra Australia, the military, civil aviation, unions and consultants who regularly appear for industry?

Do you know that there is a public health expert in New Zealand who says that cell sites are safe? He is presented on radio as 'totally independent', a doctor who is paid large sums by Telecom. He says that they are safe. He is not therefore perceived by the public as independent, but he is on the Standards Committee.

Of twenty three people on this committee we have only one public representative - Dr. Ivan Beale, Associate Professor of Psychology from Auckland University.

In Australia the interests of the people on their Standards Committee are openly listed. Nine of the twelve members are users or sellers of the technology. Three are apparently public health people, but the National Institute of Occupation Health representative used to be the medical head of Telecom medical research in Australia. The former chairman of the committee has appeared for companies all round the world to say that there is no problem.

Telstra Australia got their head of medical research to do a study to allay people's fears about cell sites - a toe in the water study. As the sites were too new to have produced significant statistics on cancer rates they used the municipalities around three TV towers in Sydney, and compared them with six other municipalities further away. This study showed an increase in childhood leukaemia of 61%, and increase in childhood leukaemia death of 274 fold in that inner ring. All other possible causes were investigated, but not linked. (The scientist who headed the study no longer works for Telstra.)

In Christchurch people have been very concerned that Telecom has been planning to site a cell phone tower next to Shirley Primary School. With the help of Vicky Buck, the Mayor of Christchurch, and Gary Moore, a city councillor, Telecom have looked for alternative sites. If these prove unsatisfactory they wish to build the tower next to the school. They have offered to reduce the output power to take it down to less than one microwatt per sq. cm. when it reaches the infant block.

We need to be informed about such issues and have our views heard.

To answer readers' questions, here is a [third article](#) based on a further interview with Dr Neil Cherry.

In addition, if you are looking for comprehensive technical research on the potential effects of radiofrequency and microwave radiation, then you may want to consider downloading [Dr Neil Cherry's Reports](#).

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