



Have Your Say

This is your College and we are interested to hear what you have to say about issues as they relate to nutritional and environmental medicine. You may have a testimony, an opinion, some research information, you may agree or disagree with something (tell us why). Just send a letter addressed to: *The ACNEM Journal*, 13 Hilton Street, Beaumaris, 3193 or email: mail@acnem.org

Dear Sir

The recent Australian media coverage of a high-profile young TV actress suffering from Hodgkin's lymphoma brings to mind whether or not doctors should consider advising cancer patients to limit their use of wireless phones, in situations that may expose the cancer site to radiofrequency / microwave energy (RF/MW).

In the case of cancer affecting lymphatic tissue, wireless phone use could expose the cancer site to levels of RF/MW energy in excess of levels associated with brain cancer, leukaemia and other cancers in epidemiological studies of broadcast and radar exposures.^{1,2}

Most people think that it is only the antenna of a wireless phone that emits the signal. All mobile and cordless phones I have tested also have emissions out of the sides and bottom of the phone, due to a lack of shielding, in order to keep the price of the phone down.

As the base of a wireless phone is emitting RF/MW, it can be within a few inches of the lymph glands, thus exposing the glands to the phone's energy, the level of which depends upon the type of phone, frequency of use and how and where the phone is being held.

Evidence that microwave exposure can accelerate the growth of cancerous tissue was admitted in a 1995 Australian joint government statement by the Australian Radiation Laboratory (now ARPANSA), Spectrum Management Agency, AUSTEL and the CSIRO. The two-page Information Sheet was titled: "Safety of Mobile Phones and Towers - The Answers".

Although the information sheet was non-committal in connection with possible health effects, the CSIRO managed to include a very important paragraph, that needs to be remembered when treating cancer patients who may use a wireless phone.

Under the section: "Is cancer an issue" it stated: "There is yet insufficient scientific knowledge of many aspects of health effects of radio waves. One common question is: Do radio waves from mobile phones increase the risks of cancer? The answer is that there is no experimental evidence that radio waves directly cause cancer. *Laboratory studies on animals suggest that where cancer exists, radio waves may accelerate its growth*".³

This information sheet was soon withdrawn from circulation, apparently due to industry concerns as to the possible implications of such an admission.

In a paper on cancer and electromagnetic radiation by Dr John Holt, published in *Medical Hypothesis* in 1979, he mentions that "low intensity VHF [RF and MW] can stimulate the rate of growth of many common cancers and alter the microscopic appearances of cancer".⁴ In a recent phone conversation this writer had with Dr Holt, he said he was of the strong opinion that close exposure to mobile phone emissions could have the same effect on nearby cancers.⁵

Besides the possibility that RF/MW exposure can accelerate cancer growth, there is also evidence that tumours can absorb significantly more RF/MW than other cancers, or healthy tissue. This increased absorption may be a factor in accelerating cancer growth.

The study, examining electrical properties of cancer tumours was conducted at Duke University, North Carolina, USA, in 1993. The researchers found that "In general, at all frequencies tested [50 to 900 MHz], both conductivity and relative permittivity were greater in malignant tissue than in normal tissue of the same type. The differences in electrical properties from normal to malignant were least for kidney (about 6% and 4% average differences over the frequency range in permittivity

and conductivity, respectively), and these differences were the greatest for mammary gland (about 233% and 577% average differences in permittivity and conductivity, respectively).⁶

As Hodgkin's disease mostly affects the 15-35 age group, the same age group who are the most active wireless phone users, it is likely that a majority of Hodgkin's disease patients use a wireless phone.

In the best interests of the cancer patient, refraining from wireless phone use should be strongly encouraged as a precaution. This is NOT saying that wireless phone use causes cancer, only that with established cancers, of whatever cause, exposure to RF/MW may lessen the chances of a successful recovery.

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References

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3. *Safety of Mobile Phones and Towers - the Answers*. The Australian Radiation Laboratory, Spectrum Management Agency, AUSTEL and the CSIRO. 1995.
4. Holt AG. "The Cause of Cancer: Biochemical Defects in the Cancer Cell Demonstrated by the Effects Of Electromagnetic Radiation, Glucose and Oxygen." *Medical Hypothesis*, Vol 5, pp 109-143, 1979.
5. Private correspondence with Dr. AG Holt, July 16, 2003.
6. Joines WT, Zhang Y, Chenxing L, Jirtle RL (1993) "The measured electrical properties of normal and malignant human tissues from 50 to 900 MHz." *Medical physics*, Vol. 21, April 1994, p. 547-550.

[ARPANSA operates an EMR Health Complaints Register at www.arpansa.gov.au - ed]

