

Mobile phones and cancer: Evaluation of the international agency for research on cancer

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A multitude of equipments that emit non-ionizing radiofrequency fields (RF) are used in medicine, industry and military. A large increase in the number of people exposed to RF occurred with the introduction of household microwave ovens. The number of individuals using wireless communication devices that emit RF (handheld mobile phones and those that deliver voice, data and images) has escalated at an extraordinary rate in recent years. This has led to increased concern among the general public regarding the 'potential' adverse effects from RF exposure on human health, especially, the development of brain cancer since the antennas of mobile phones emit RF close to the head when the phones are being used. This issue was discussed recently at the international agency for research on cancer (IARC). A working group of scientists were invited to evaluate the carcinogenic potential of RF emitted from mobile phones. The group reviewed all peer-reviewed scientific publications dealing with RF: epidemiological investigations in humans, long-term exposure studies in animals as well as other relevant/related end-points such as blood brain barrier, gene and protein expression, genotoxicity, immune function, oxidative stress, etc which might provide mechanistic evidence. The IARC evaluation of RF emitted from mobile phones will be discussed.

Biography

Vijayalaxmi has completed her Ph.D from Sri Venkateswara University in South India. She received a post doctoral fellowship from the World Health Organization for advanced training in cytogenetics in British Medical Research Council's Human Genetics Unit in Scotland. She continued to work there until moving to the Department of Radiology, University of Texas Health Science Center in San Antonio, Texas, USA. Her major research interest is in the examination of biological/genetic effects of non-ionizing radiofrequency fields in animal and human cells. She has published >90 original research papers and serves as a member of the editorial board of several scientific journals.

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