

NEWS

Mobile phones are unlikely to cause brain tumours, report says

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A committee of the International Commission on Non-Ionizing Radiation Protection has concluded after a comprehensive review that there is little cause for concern about the suggested link between mobile phone use and brain tumours.

“Although there remains some uncertainty, the trend in the accumulating evidence is increasingly against the hypothesis that mobile phone use can cause brain tumours in adults,” say the committee members in their review, published on 1 July in *Environmental Health Perspectives* (doi:10.1289/ehp.1103693).

The committee, chaired by Anthony Swerdlow of the Institute of Cancer Research in London, considered all available studies on the topic. But it paid particular attention to the largest study yet, the recently published “Interphone” study (*International Journal of Epidemiology* 2010;39:675-94, doi:10.1093/ije/dyq079). This was a case-control study of phone use by more than 5000 adults from 13 countries who developed glioma and meningioma, the two commonest types of brain tumour. Rather than any rise, it found a significant diminution of the risk of both tumour types among regular users of mobile phones. The committee offers various explanations for this unexpected result, including non-response bias and other methodological difficulties.

Other findings were the absence of a trend in risk of either tumour type with cumulative hours of phone use and no relation with the number of calls made, with years of use of mobile phones, or with years since first use. Overall there was no

convincing evidence of a link. “At present,” the committee says, “there are no data on risk of childhood tumours.”

Asked by the *BMJ* whether any of the 30 or so previous studies of cancer and mobile phones had come up with anything very conclusive, Professor Swerdlow singled out the work of Lennart Hardell from Örebro University in Sweden. “His results are at considerable variance with everybody else’s. If you thought the Hardell results were correct, you’d have to believe there’s a large risk of brain tumours from using mobile phones. From all the rest of the literature you’d come to a different conclusion,” said Professor Swerdlow.

The residual uncertainty about a link between mobile phone use and cancer should diminish over coming years, he added.

“We’ve gone from a world where no one used mobile phones to one where almost everyone uses them,” said Professor Swerdlow. “If the population rates [of brain tumours] don’t start rising at some point, it’s either a very small subset of people being affected or a very small effect.”

He added that although mobile phone studies may have failed to show a causal link that they were designed to investigate, they had provided tangible benefits. “Some of them involved collecting blood samples, and several genetic causes of brain tumours have been now been found using, to a fair extent, these samples.”

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