

New studies link brain tumors to mobile phones

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By Robert Uhrig, Technology Correspondent

TWO new studies have shown links between mobile phone usage and brain tumors, according to scientists who say people should reduce time spent on a mobile and use hands-free devices.

The studies are not absolutely conclusive but the American and Swedish authors have urged users to ration use of mobile phones until more is known.

Dr. Lennart Hardell, a Swedish cancer specialist and author of one of the studies, said: "There is a biological indication that there is a problem which should be studied much more.

"I think that until we have the definite conclusion, the definitive results of much larger studies, we need to minimize exposure to human beings."

Dr. Hardell's study, as yet unpublished, looked at brain tumor sufferers. It found a correlation between phone use and cancer.

His study showed that mobile phone use, regardless which side of the head it was held against, increased the risk of a brain tumor by almost two and a half times.

Dr. Hardell said he was particularly concerned about the effects on children, because growing tissue was more sensitive to cancer risks. "We need to use mobile phones which give a low exposure to brain. We need to be cautious about the use of phones by children or young adults."

His findings will be shown on BBC1's Panorama this evening.

Dr. George Carlo, head of an American research body funded by the mobile phone industry, will speak out on Panorama for the first time about an as yet unpublished study which also shows an increased risk of getting type of rare brain tumor.

Dr. Carlo said his and the Swedish study could be a "problem" for the mobile phone industry and he has called for the public to be given full health information on use of mobiles.

It was no longer a responsible position for the manu- problem. "We clearly have results that suggest there could be something more here than meets the eye.

"The science we have today clearly shows that this is not black and white. That we have moved now into a gray area, that suggests there could be a problem that needs to be looked at very, very carefully."

Dr Alan Preece of Bristol University, who has conducted independent research into the physiological effects of using mobile phones, agreed that the public should minimize exposure.

"Keep the exposure as short as possible – use a hands-free device," he said.

Dr. Preece has conducted the only study so far into the effects on brain function of mobile phones. He

tested the memory and reaction times of 36 volunteers at Bristol University after they were exposed to 20-30 minutes of mobile phone-type radiation.

He found a change in the subjects' ability to make choices which involve the visual cortex, the part of the brain involved in processing sight. However, contrary to expectation, reaction times to visual stimuli were faster after using a mobile phone.

Although there was no scientific proof that mobile phones are harmful, Dr. Preece said there was also almost no scientific evidence that mobile phones were safe.

He said the most responsible behavior for manufacturing minimize exposure". The Panorama program also talks to those who believe they have been made ill buy mobile phones, including Steve Corney, who until four years ago was employed as a BT engineer using a new digital phone for up to five hours at a time.

Mr. Corney is now out of work and suffering from memory loss and speech problems. He has tried to sue his employer, BT, but had to drop the case because there is insufficient scientific evidence that his problems stemmed from using a mobile phone. Hundreds of BT engineers are healthy despite working in the same conditions as Mr. Corney.

In America, the program talks to David Reynard whose wife Suzie died of a golfball-size tumor behind her left ear – directly next to her phone antenna.

Panorama's report into mobile phones is on BBC1 tonight at 10.05pm

All makes scored within safety limit

RESEARCHERS at the National Physical Laboratory examined emission levels relating to eight makes of phone.

All scored significantly below the safety limit of 10 SAR, the specific absorption rate set by the National Radiological Protection Unit. But there was a considerable difference between the lowest and highest.

The lowest, a Motorola Star Tac 70, had an SAR of 0.02, while the Nokia 2110 with a SAR of 0.44 had a figure 20 times higher.

Others measured included the newer Nokia 5110 with an SAR of 0.37 and the Ericsson GA628 with an SAR of 0.26.

The research carried out for the Panorama television program also found that hands-free devices reduced the exposure to the head by 98 per cent. Previous research had found that many devices sold as shields to protect the head from radiation did not perform as claimed. But the NPL research found that a device sold under the name microshield cut emissions by 80 per cent.

The disparity in measurement has alarmed scientists investigating the possible biological effects. Dr. Preece has called for the results of Panorama's research to be made available to the public.

Companies whose phones were tested said the only thing that mattered was that their phones were within safety levels.

Peter Harrison of Nokia, whose phone had the highest emissions of the eight, said: "It doesn't indicate that one phone is better or worse in terms of safety than the other, because they all meet the same guidelines."