

TUMOUR RISK FOR RURAL MOBILE USERS

By Nic Fleming, Science Correspondent
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Mobile phone users who live in the countryside are more likely to develop brain tumours than those in towns and cities, a study published today shows.

Researchers found that people from rural areas who had used a digital mobile for five years or more were up to four times more likely to be diagnosed with a tumour.

They claimed the finding was due to handsets operating at greater power levels when they are further away from transmitters.

Mobile phone manufacturers rejected the findings, pointing out that all mobile phones operate at power levels that are within international safety limits.

Prof Kjell Hansson Mild, a biologist at Örebro University, Sweden, said: "Mobile phones can use up to 1,000 times more power when they are far away from a base station.

"Our research suggests that you are more at risk of a brain tumour if you live in the countryside and are consistently using a mobile far from their transmitters."

When a mobile phone either makes or receives a call, it initially operates at full power. After measuring the signal strength coming from the transmitter, it turns itself down to the lowest power possible without losing the call.

Transmitter masts are more spaced out in the countryside and someone using a mobile frequently in rural areas absorbs far more energy from their handset than someone who uses their phone mainly in towns and cities.

Prof Mild and Prof Lennart Hardell, also at Örebro University, whose research is published today in the journal Occupational and

Environmental Medicine, identified 1,429 people living in central Sweden aged 20 to 80 diagnosed with brain tumours between January 1997 and June 2000, and matched them with a control group.

All participants were asked about phone use, of older analogue or newer digital models, or cordless phones.

Those who lived in the countryside who had used digital mobile phones for more than a year were 56 per cent more likely to have been diagnosed with a brain tumour than town and city dwellers.

Among those who had used a digital mobile for more than five years, those in rural areas were three-and-a half times more likely to have a tumour than those in urban areas. When those in both groups who had used their phones the most were compared, the risk was four times greater in rural areas.

Alasdair Philips, of PowerWatch, said holding a phone away from the head after dialling, until a call is answered, could reduce people's exposure to high power emissions. Dr Michael Clark, of the Health Protection Agency, said: "The results should be interpreted with caution."

Mike Dolan, the executive director of the Mobile Operators Association, said: "All mobile handsets in the UK comply with international health and safety guidelines which apply whether the phones are used in rural or urban areas."