A SWEDISH study suggests that people who use a mobile phone for at least 10 years might increase their risk of developing a rare benign tumour along a nerve on the side of the head. One of the researchers behind the preliminary study, Anders Ahlbom, said the results were surprising and more research is needed.

Several previous studies have investigated whether the use of mobile phones has been linked to an increased risk of brain tumours. Although experiments have shown radiation from mobile phones can affect brain cells in a lab, more relevant studies on people have found no evidence that the phones pose a health risk.

However, experts have said that because children's brains are developing, it may be best for youngsters to avoid using mobiles for long periods.

The three-year study by Ahlbom and Maria Feychting, professors at the Karolinska Institutet in Stockholm, focused on 750 Swedes who had used mobile phones for at least 10 years. It was published in the International Journal of Epidemiology.

In the study, researchers questioned 150 patients already diagnosed with acoustic neuroma, a benign tumour on the auditory nerve that takes several years to grow before being diagnosed, and 600 who did not have it, about their mobile phone use.

All 750 subjects had been using mobile phones for at least 10 years, nearly all early analogue models that emitted more electromagnetic radiation than the digital models now on the market. Digital phones emit radiation in pulses, while older analogue varieties emitted continuous waves.

"At the time the study was conducted, only analogue mobile phones had been in use for more than 10 years and therefore we cannot determine if the results are confined to use of analogue phones or if the results would be similar after long-term use of digital phones," the report said.

The risk of developing a tumour was almost double for those who started to use phones before their diagnosis. In addition, the tumour risk was almost four times higher on the side of the head where the phone was held, Ahlbom and Feychting said.

Retrospective questionnaires are not considered the most accurate method of determining a link between behaviour and disease. Many links that emerge from such studies turn out not to be true under more rigorous study.

Acoustic neuroma tumours, which can affect hearing, occur in less than one adult per 100,000 people annually. The tumour pushes on the surface of the brain, but doesn't grow into the brain itself, according to the Atlanta-based Acoustic Neuroma Association.

The study was funded by the European Union and is part of the wider Interphone study coordinated by the International Agency for Research on Cancer.
Previous studies, including one by Finnish scientists in 2002, found that electromagnetic radiation emitted by phones can affect brain tissue, but others found to the contrary.

The wireless industry has always maintained there is no link between mobile phones and cancer.

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