Long-Term Cell Phone Use Spurs Tumor Growth

If you have used your mobile phone for more than 10 years, you might have increased your risk of developing acoustic neuroma, a benign tumor on the auditory nerve.

Interestingly enough, studies found that the risk was confined to the side of the head that was used most often while talking on the phone. As a matter of fact, the risk of acoustic neuroma was nearly four times greater on the side of the head that the phone was most frequently held compared to the other side, which appeared normal.

A study revealed that the number of years of phone usage seemed to play a factor in the development of the tumor, as those using their phone 10 years or more were shown to nearly double their risk of acoustic neuroma. On the other hand, those who used their phone for less than 10 years didn't show any signs of increases risk.

Participants of the study included 150 people with acoustic neuroma and 600 healthy people.

Since the only types of phones used during the study were analog mobile phones, researchers questioned whether or not the same results would apply to long-term use of the digital phones, which have since replaced the bulkier and less advanced analog phones.

In response to the study results, the mobile phone industry claimed there wasn't any scientific evidence to supporting findings showing that using mobile phones causes negative health effects.
Study indicates mobile phones increase tumor risk
STOCKHOLM (Reuters) — Ten or more years of mobile phone use increases the risk of developing acoustic neuroma, a benign tumor on the auditory nerve, according to a study released on Wednesday by Sweden's Karolinska Institute.

The risk was confined to the side of the head where the phone was usually held and there were no indications of increased risk for those who have used their mobile for less than 10 years, the Karolinska Institute said in a statement.

The institute, one of Europe's largest medical universities and a clinical and biomedical research center, awards the Nobel Prize in physiology or medicine.

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

The mobile phone market is now dominated by GSM phones, which replaced the bulkier and less advanced analogue phones in many markets the mid- and late-1990s.

The mobile phone industry has said there is no scientific evidence of negative health effects from use of mobile phones.

The Karolinska Institute said 150 people with acoustic neuroma and 600 healthy people participated in the study.

"The risk of acoustic neuroma was almost doubled for persons who started to use their mobile at least 10 years prior to diagnosis," the institute said.

"When the side of the head on which the phone was usually held was taken into consideration, we found that the risk of acoustic neuroma was almost four times higher on the same side as the phone was held and virtually normal on the other side."

Finland's Nokia is the world's biggest mobile phone maker.

Other large producers include Motorola of the United States, South Korea's Samsung Electronics, Germany's Siemens and Swedish-Japanese joint venture Sony Ericsson.

Global mobile phone sales have been booming as thousands of new users sign up every day and existing subscribers replace their old handsets with new ones, capable of taking pictures or playing music.

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Mobile phone use and acoustic neuroma

A study from the Institute of Environmental Medicine (IMM) at Karolinska Institutet, Sweden, found that 10 or more years of mobile phone use increase the risk of acoustic neuroma and that the risk increase was confined to the side of the head where the phone was usually held. No indications of an increased risk for less than 10 years of mobile phone use were found.

At the time when the study was conducted only analogue (NMT) 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 also after long term use of digital (GSM) phones.

In close collaboration with the clinics where these patients are treated all new patients with acoustic neuroma were identified during a three year period in certain parts of Sweden. Persons without the disease were randomly selected from the population registry (controls). A nurse contacted all patients and controls and asked them if they wanted to participate in the study. All who agreed participated in a personal interview where detailed questions were asked about their mobile phone use and other issues of importance for the study.

A total of about 150 acoustic neuroma patients and 600 healthy controls participated in the study. The risk of acoustic neuroma was almost doubled for persons who started to use their mobile phone at least 10 years prior to diagnosis. When the side of the head on which the phone was usually held was taken into consideration, we found that the risk of acoustic neuroma was almost four times higher on the same side as the phone was held, and virtually normal on the other side.

Acoustic neuroma is a benign tumour on the auditory nerve that usually grows slowly over a period of years before it is diagnosed. It occurs in less than one adult per 100,000 per year.

This is the first report from the Swedish part of the so called INTERPHONE study, an international collaboration coordinated by WHO's cancer research institute, IARC (International Agency for Research on Cancer). The Swedish results need to be confirmed in additional studies before firm conclusions can be drawn. Other centers within the INTERPHONE study where a sufficient number of long term mobile phone users can be included – primarily the Nordic – will contribute valuable data. This Swedish study, and eventually other INTERPHONE reports, will be reviewed by the scientific community and a coherent evaluation will gradually emerge. It can also be expected that these results will stimulate experimental research which will also contribute information of importance for the interpretation of the findings.

The study was funded by the European Union Fifth Framework Program, "Quality of Life and Management of living Resources" (contract QLK4-CT-1999-01563), the Swedish Research Council, and the International Union against Cancer (UICC). The UICC received funds for this purpose from the Mobile Manufacturers' Forum and GSM Association. Provision of funds to the INTERPHONE study investigators via the UICC was governed by agreements that guaranteed INTERPHONE's complete scientific independence. These agreements are publicly available at [http://www.iarc.fr/pageroot/UNITS/RCA4.html](http://www.iarc.fr/pageroot/UNITS/RCA4.html)

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Cell Phone-Tumor Link Found?
Swedish Study Finds Some Cell Phone Users At Risk For Benign Tumor

By Bootie Cosgrove-Mather

(AP) A Swedish study suggests that people who use a cell phone for at least 10 years might increase their risk of developing a rare benign tumor along a nerve on the side of the head where they hold the phone.

In an interview Thursday with The Associated Press, 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 cell phones is linked to an increased risk of brain tumors. 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 not be a good idea for youngsters to use the phones 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 cell 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 tumor on the auditory nerve that takes several years to grow before being diagnosed, and 600 who did not have it, about their cell phone use.

All 750 subjects had been using cell phones for at least 10 years, nearly all early analog models that emit more electromagnetic radiation than the digital models now on the market. Digital phones emit radiation in pulses; the older analog varieties emit continuous waves. Since cell phones exploded in popularity in the late 1990s, most of those sold used digital technology.

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

The risk of developing a tumor was almost double for those who started to use phones before their diagnosis. In addition, the tumor 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 behavior and disease. Many links that emerge from such studies turn out not to be true under more rigorous study.

Acoustic neuroma tumors, which can affect hearing, occur in less than one adult per 100,000 people annually. The tumor 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 have said that's not the case.

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

The Wireless Association in Washington, D.C., a trade group representing American cell phone manufacturers, urged more research. "The wireless industry agrees that more research is needed in this area to provide definitive answers to any questions that might still exist," it said in a statement Wednesday.

Ahlbom conceded more research was needed, adding the study was not an excuse to avoid using cell phones. "You could say also, of course, if that someone is concerned about these results the easy way to avoid any risk is to use a hands-free set," he said.

By Matt Moore
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