

## ***Cell Phone Usage Affects Brain, New Study***

*Posted on Tuesday, February 22, 2011 (EST)*

*Cell phone radiation "affects brain function" in human subjects, according to a new study published February 22, 2011.*

*Cell phone radiation "affects brain function" in human subjects, according to a new study published February 22, 2011. Photo Credit: Motorola*

February 22, 2011, ([Sawf News](#)) - Cell phone radiation "affects brain function" in human subjects, according to a new study published February 22, 2011.

The radiation leads to "increased brain glucose metabolism in the region closest to the antenna," according to the study.

The cause of the change in brain function, or its potential effect on the human body is not yet understood.

The cell phone industry claims that cell phone radiations cause no effect on the brain other than heating due to radiation absorption by brain tissue. However, study authors have ruled out heating as the cause of changes that they observed.

The study published in the Journal of the American Medical Association was led by Dr. Nora D. Volkow, a pioneering brain imaging scientist who heads the National Institute on Drug Abuse.

It's the first investigation to document changes in brain glucose metabolism after cell phone use.

**"This research offers an important insight into potential effects of cell phone radiation on the human brain," Renee Sharp, director of the Environmental Working Group (EWG) California office said. "It joins the growing list of studies that have raised concerns about cell phone use and the brain."**

While scientists continue investigating the question, EWG recommends cell phone users limit their exposure to cell phone radiation by taking easy steps such as getting a headset, using speaker-phone mode, keeping the phone away from their body, and looking for low-radiation phone models.



## Study Details

The research team explored the impact of cell radiation on the brain by placing cell phones on both ears of 47 healthy volunteers. The volunteers, seated in a darkened room, were directed to keep their eyes closed and remain still for 50 minutes. On the first day, both phones were turned off. On the second day, one was turned on.

The volunteers' brains were subjected to positron emission tomography, commonly known as PET scans, a medical imaging technology, to measure glucose metabolism. "Compared with no exposure, **50-minute cell phone exposure was associated with increased brain glucose metabolism in the region closest to the antenna," the study said.**

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CHICAGO, Feb 23 (bdnews24.com/Reuters) - **Spending 50 minutes with a cellphone plastered to your ear is enough to change brain cell activity in the part of the brain closest to the antenna.**

But whether that causes any harm is not clear, scientists at the National Institutes of Health said on Tuesday, adding that the study will likely not settle recurring concerns of a link between cellphones and brain cancer.

"What we showed is glucose metabolism (a sign of brain activity) increases in the brain in people who were exposed to a cellphone in the area closest to the antenna," said Dr. Nora Volkow of the NIH, whose study was published in the Journal of the American Medical Association.

The study was meant to examine how the brain reacts to electromagnetic fields caused by wireless phone signals.

*Volkow said she was surprised that the weak electromagnetic radiation from cellphones could affect brain activity, but she said the findings do not shed any light on whether cellphones cause cancer.*

*"This study does not in any way indicate that. What the study does is to show the human brain is sensitive to electromagnetic radiation from cellphone exposures."*

Use of the devices has increased dramatically since they were introduced in the early-to-mid 1980s, with about 5 billion mobile phones now in use worldwide.

Some studies have linked cellphone exposure to an increased risk of brain cancers, but a large study by the World Health Organization was inconclusive.

Volkow's team studied 47 people who had brain scans while a cellphone was turned on for 50 minutes and another while the phone was turned off.

While there was no overall change in brain metabolism, they found a 7 percent increase in brain metabolism in the region closest to the cellphone antenna when the phone was on.

Experts said the results were intriguing, but urged that they be interpreted with caution.

"Although the biological significance, if any, of increased glucose metabolism from acute cellphone exposure is unknown, the results warrant further investigation," Henry Lai of the University of Washington, Seattle, and Dr. Lennart Hardell of University Hospital in Orebro, Sweden, wrote in a commentary in JAMA.

"Much has to be done to further investigate and understand these effects," they wrote.

Professor Patrick Haggard of University College London said the results were interesting since the study suggests a direct effect of cellphone signals on brain function.

But he said much larger fluctuations in brain metabolic rate can occur naturally, such as when a person is thinking.

**"If further studies confirm that mobile phone signals do have direct effects on brain metabolism, then it will be important to investigate whether such effects have implications for health," he said.**

John Walls, a spokesman for CTIA-The Wireless Association, an industry group, said the scientific evidence so far "has overwhelmingly indicated that wireless devices, within the limits established by the FCC (Federal Communications Commission), do not pose a public health risk or cause any adverse health effects."

**Volkow said her the findings suggest the need for more study to see if cellphones have a negative effect on brain cells.**

**Meanwhile, Volkow isn't taking any chances. She now uses an ear phone instead of placing a cellphone next to her ear.**

**"I don't say there is any risk, but in case there is, why not?"**

[bdnews24.com/cr/0921h](http://bdnews24.com/cr/0921h).

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## **Study eyes cell phone use, brain changes**

Feb 23, 2011, by McClatchy-Tribune Information Services

Feb. 23--Brain activity surges in people who hold cell phones to their ears for long conversations, raising new questions about the devices, according to a new study. The research measured the effects from phone radiation and is the first to document that mobile phones have an impact on brain function. While the health implications remain unknown, the discovery, published in Wednesday's Journal of the American Medical Association, is certain to fuel the global debate over potential risks, particularly

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<http://news.yahoo.com/video/health-15749655/24288467>

## **Cell phone use stimulates brain activity, study finds**

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on a mobile phone can alter activity in our brain cells. A small study from the National...

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