

Bye-Bye Wi-Fi?

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Picture source: <https://techtalk.gfi.com/is-wi-fi-making-you-sick/>

Wi-Fi and mobile phone are dangerous to your health, our PRISMS students are told so. This is why our Wi-Fi is switched off every night from 00:04 -06:00 hrs. However, we looked at the available research and found that the reality is not so simple.

The question of Wi-Fi and mobile phone safety has been debated for as long as these technologies and devices have existed. Not surprisingly, researchers across the world – some serious, some not so qualified – have been looking into question and have conducted numerous meta-studies (studies of studies.)

An examination of four major meta-studies conducted by reputable scientists shows that the data available today is not conclusive. A pooled analysis of case-control studies involving malignant brain tumors and the use of mobile and cordless phones, published in the International Journal of Oncology (2010), shows, for example, that the risk of getting brain tumor increases with

latency time and cumulative use in hours, and was highest in subjects with first use before the age of 20.

The World Health Organization (WHO), on the other hand, does not indicate any association between health and radio frequency electromagnetic field exposure at levels typically encountered in people's everyday environment. The WHO bases its conclusion on research conducted by the Swiss Tropical and Public Health Institute and the University of Basel. They carried out a meta-analysis and discovered that "no single symptom or symptom pattern was found to be consistently related to exposure [to electromagnetic fields]". The scientists conclude that "no differences were found among the three groups in chromosomal aberrations, DNA damage or sister chromatid exchange frequency", and there is "no indication of an overall increase in cancer incidence".

Less clear is what a recent article "Effect of mobile telephones on sperm quality: a systematic review and meta-analysis" from the Environmental International Journal (2014) said. This study showed that the risk of getting a brain tumor increased with latency time and cumulative use. However, the evidence currently available lack of a certain biological plausibility. Mobile phone exposure's effect on concentration was less clear. The study shows that "exposure to mobile phones was associated with reduced sperm motility and viability". It also said that "pooled results from in vitro and in vivo studies suggest that mobile phone exposure negatively affects sperm quality."

Finally, the Ontario Agency for Health Protection concluded in 2010 that Wi-Fi is a relatively safe tool for us to use. The article, "Are there human health effects related to the use of wireless internet technology" (2010) involves the analysis of Wi-Fi exposure and cell phone health issues. Based on a study by the Royal Society of Canada, no conclusive evidence of adverse effects on health at exposure levels of Wi-Fi below current Canadian guidelines was discovered. In a subsequent study, scientists showed that Wi-Fi exposure was not only well within recommended limits but also a small fraction (less than 1%) of what is received during the typical use of a cell phone. Although there is emerging evidence that long-term frequent use of cell phones may be associated with an increased risk of tumors on the side of the head where the cellphone is used, Wi-Fi seems to be healthy because of its small fraction compared to cell phones, said the Ontario Agency for Health Protection.

After reading through all the studies, we have not found any source that directly points to the harm Wi-Fi could bring to human beings. However, according to large numbers of trials, it is conclusive that frequent exposure to mobile phone usage could hurt a person's health in multiple ways. While there is no scientific proof or theory developed about "Radioactive Wi-Fi", it is always wise to reduce one's exposure overall.