



## **Inaccurate claims related to INTERPHONE study**

Prior to the publication of the full INTERPHONE [results](#), some [British newspapers](#) selectively highlighted a result from a small data set of 'heavy users' and glioma – one type of brain cancer – in the study. By doing so they failed to convey the overall result, which was more accurately reflected by other media outlets such as the [BBC](#) and [ABC](#). Unfortunately, this early action resulted in some newspapers around the world to follow suit with headlines such as "[Half an hour of mobile use a day 'increases brain cancer risk'](#)".

In the INTERPHONE paper the researchers concluded that overall there was no link between the two most common types of brain cancers and mobile phone use. The prominence given to this sub-set of the data ignored the advice of the authors, which specifically advised against focusing on extreme values:

*"Rather than focus on the most extreme values, the interpretation should rest on the overall balance of evidence."*

### **Overall balance of evidence counts, not inconclusive data sub-sets**

The researchers also said that the evidence for an increased risk of glioma among the highest users was inconclusive, as the increase could be due to one or more of the possible sources of error.

For example, some of the small group of 'heavy users' said they used their mobile phone for more than 12 hours a day and the researchers believed that there was "reasonable doubt about the credibility of such claims."

Additional validation studies also found evidence that people diagnosed with a brain tumour over-reported their past mobile phone use and that this 'recall bias' may be more likely if subjects perceive that mobile phone use is associated with brain tumours, which has been widely speculated on by some reporters.

Professor Patricia McKinney, epidemiologist at the University of Leeds and leader of the UK North part of the study, said in a [statement](#): "For the estimated total (cumulative) hours of phone use there was an apparently increased risk of glioma seen in the highest ten percent of users. However, some of these had reported improbable levels of use, for instance 12 or more hours every day; there was no trend of increasing risk with greater phone use for people in the nine lower use categories; and there was no relation to risk for the cumulative number of phone calls made. These factors suggest

that the apparently increased risk with the highest cumulative hours of use cannot be interpreted as evidence of mobile phones causing brain tumours.”

### **IARC’s press release illustrates cut off points in patterns of use**

The IARC [media release](#) said: “The cut-point for the heaviest 10% of users (1640 hours lifetime), spread out over 10 years, corresponds to about a half-hour per day.” Therefore, the half-hour per day or 30 minutes, was providing a context for the cut off point for ‘heavy users’ in the study and, as pointed out earlier, some people in the study reported much higher than 1640 lifetime hours and this over-reporting may have caused the link. Professor Bruce Armstrong who led the Australian arm of Interphone also [discussed](#) this point.

The World Health Organisation updated its [fact sheet](#) on mobile phones and health to take the Interphone results into account but still resumes its standpoint that [“To date, no adverse health effects have been established for mobile phone use”](#). However, the US Food and Drug Administration in its latest Consumer Health Information [“No Evidence Linking Cell Phone Use to Risk of Brain Tumours”](#) also mentions that “people you want to reduce their RF exposure can (...) use speaker mode or a headset to place more distance between the head and the cell phone.”

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