

## Dear Head Teacher and Governing Body (Health and Safety Committee),

In the UK, the Government's Information and Communication Technology (ICT) agency for education, BECTA, is promoting and celebrating the use of mobile phones and hand-held wireless devices in schools.

However, the UK Government's Department of Health and Chief Medical Officers recommend that to avoid potential adverse health effects, young people under the age of 16 should not use mobile phones for non-essential calls (1). The International Commission for Electromagnetic Safety and some foreign governments are also calling for young people to limit their use of mobile phones and wireless technologies. France has banned pupils from using mobile phones in school.

"Do I believe mobile phones can cause brain cancer? The answer is yes, I do." Australian neurosurgeon Dr Charlie Teo. "The concern is not just brain tumours, but other health effects associated or reported to be associated with cell phones, including behavioural disturbances, salivary gland tumours, male infertility and microwave sickness syndrome. ...we should be concerned." Australian neurosurgeon Dr Vini Khurana. "It is not just brain tumours that these studies show an increased risk of but other types of cancers, migraines and cardiovascular disease. There are all kinds of health effects that can potentially occur with cell phone use." American neuro-oncologist Dr. Santosh Kesari. "Given the advice from the Department of Health, we would not endorse the compulsory use of mobile phones in schools for children under the age of 16." Braintumourresearch.org.

Several independent epidemiological studies have found that the use of mobile or cordless phones is associated with an increased risk of some brain or salivary gland tumours, after long-term use (2,3,4). The highest risks of tumours were in young people who started to use the phones under the age of 20 (5). Scientific studies have also found that mobile communication technologies may decrease fertility, alter brain function/behaviour, decrease cognitive abilities, alter the immune system and have adverse cardiovascular effects. **Some people are more sensitive to the modulated microwaves emitted from wireless technologies than others.**

The safety of mobile communication technologies is a controversial subject. This is a field where there are conflicts of interest and economic and political pressures. There are also scientific questions still to be answered. But the assertion that there are no damaging effects of mobile phones on our bodies is not supported by the scientific literature (6, [www.emf-portal.de/db\\_status.php?l=e&form=6](http://www.emf-portal.de/db_status.php?l=e&form=6), or search [www.ncbi.nlm.nih.gov/pubmed/](http://www.ncbi.nlm.nih.gov/pubmed/)). Some reports describe adverse effects and others find no effect. Biological systems are complex, and the way our bodies respond can depend upon biological or environmental conditions. Nevertheless, some people using wireless technologies in schools are likely to have molecules or cells in such a condition that the radiation will cause damage.

We realise that schools are under pressure to adopt new technologies, but we would like you to be aware of the warnings given by the Department of Health and members of the medical and scientific communities against the use of mobile phones by young people. **Compulsory exposure to mobile phones in the classroom takes away the rights of pupils (parents) or teachers to decide for themselves whether they want to take potential risks with their health.**

Many of the adverse biological effects published are also seen at exposures relevant to Wi-Fi-enabled devices. The choice of wired or wireless networks and which technologies are used currently lies with the school. Consider taking a safety-first, precautionary approach and wire-up, using dedicated network cabling (not power line communication), with plug-in network points for use throughout the school.

The current safety guidelines for electromagnetic fields are no longer considered protective by the European Environment Agency, the International Commission for Electromagnetic Safety or the European Parliament. New biologically-based safety guidelines are being drawn up by an international group of experts, The Scientific Panel on Electromagnetic Health Risks, and will be published this year. **Please wait to read the new, biologically-based safety guidelines before investing in any wireless technologies.**

Sent to you from [www.Wifiinschools.org.uk](http://www.Wifiinschools.org.uk). The letter is also kindly supported by Voice - the Union for Education Professionals, The Radiation Research Trust, Cavisoc, Wiredchild and P.A.M.T. (Precautionary Approach to Microwave Technology).

Electronic version and links can be found on [www.wifiinschools.org.uk/resources/letter+May+2010.pdf](http://www.wifiinschools.org.uk/resources/letter+May+2010.pdf)

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## Links for Letter, May 2010

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### (1) Department of Health leaflet

[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_4123981.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4123981.pdf)

### Children and young people under 16

Mobile phones are very popular with young people and have obvious attractions for personal security and keeping in touch with others. Parents and young people should make their own informed choices about the use of mobile phones. The current balance of evidence does not show health problems caused by using mobile phones. However the research does show that using mobile phones affects brain activity. There are also significant gaps in our scientific knowledge. Because the head and nervous system are still developing into the teenage years, the expert group considered that if there are any unrecognised health risks from mobile phone use, then children and young people might be more vulnerable than adults.

The expert group has therefore recommended that in line with a precautionary approach, the widespread use of mobile phones by children (under the age of 16) should be discouraged for non-essential calls. In the light of this recommendation the UK Chief Medical Officers **strongly** advise that where children and young people do use mobile phones, they should be encouraged to: use mobile phones for essential purposes only; keep all calls short - talking for long periods prolongs exposure and should be discouraged. **The UK CMOs recommend that if parents want to avoid their children being subject to any possible risk that might be identified in the future, the way to do so is to exercise their choice not to let their children use mobile phones.**

### (2) Surgical Neurology 72(3), 205-214, 2009. Cell phones and brain tumors: a review including long-term epidemiologic data.

[http://www.surgicalneurology-online.com/article/S0090-3019\(09\)00145-1/abstract](http://www.surgicalneurology-online.com/article/S0090-3019(09)00145-1/abstract)

“The results indicate that using a cell phone for > or = 10 years approximately doubles the risk of being diagnosed with a brain tumor on the same side of the head as that preferred for cell phone use. The data achieve statistical significance for glioma and acoustic neuroma.” The authors conclude that there is adequate epidemiologic evidence to suggest a link between prolonged cell phone usage and the development of a brain tumour.

### (3) Journal of Clinical Oncology 27(33), 5565-5572, 2009. Mobile phone use and risk of tumors: a meta-analysis.

<http://jco.ascopubs.org/cgi/mjgca?SEARCHID=1&VOLUME=27&FIRSTPAGE=5565&FIRSTINDEX=0&hits=10&RESULTFORMAT=&gca=jco%3B27%2F33%2F5565>

“The current study found that there is possible evidence linking mobile phone use to an increased risk of tumors”.

### (4) American Journal of Epidemiology 167(4), 457-467, 2008. Cellular phone use and risk of benign and malignant parotid gland tumours – a nationwide case-control study.

<http://aje.oxfordjournals.org/cgi/content/abstract/167/4/457> (the link gives free access to the full paper)

“Based on the largest number of benign parotid gland (salivary gland) tumours patients reported to date, our results suggest an association between cellular phone use and parotid gland tumours.”

### (5) International Journal of Oncology 35(1), 5-17, 2009. Mobile phones, cordless phones and the risk for brain tumours.

<http://www.spandidos-publications.com/ijo/35/1/5> (the link gives free access to the full paper)

Tumour risks were greatest for those who started to use mobile or cordless phones under the age of 20. Mobile phone use was associated with a 6.8 fold increased risk of acoustic neuroma on the same side of the head as phone use, for subjects who first used a mobile phone under the age of 20 (for all ages it was a 1.8 fold increase). For astrocytoma in this category there was a 7.8 fold increased risk (for all ages it was a 2.0 fold increase).

### (6) Scientific Research <http://wifiinschools.org.uk/6.html>

[http://www.emf-portal.de/db\\_status.php?l=e&sform=6](http://www.emf-portal.de/db_status.php?l=e&sform=6); <http://www.ncbi.nlm.nih.gov/pubmed/>

<http://wifiinschools.org.uk/>; <http://www.voicetheunion.org.uk/>; <http://www.radiationresearch.org/>;

<http://www.cavisoc.org.uk/>; <http://wiredchild.org/>