



SEPTEMBER EDITION 2010

EME UPDATE

MOBILE TELECOMMUNICATIONS HEALTH AND SAFETY NEWS

- NEW 30 YEAR STUDY TO EXPLORE POTENTIAL HEALTH RISKS OF MOBILES >
- OUT OF AFRICA: HEALTH AUTHORITIES BACK MOBILE SAFETY STANDARDS >
- SAN FRANCISCO SAR RETAIL DISPLAY ORDINANCE HEATS UP SAFETY DEBATE IN USA >
- RESEARCH ON CHILDREN AND TEENS IS A HIGH PRIORITY SAYS WHO >
- US NATIONAL CANCER INSTITUTE FINDS NO LINK
BETWEEN MOBILE PHONES AND BRAIN CANCER RATES >
- US PRESIDENT'S CANCER EXPERTS DISMISS MOBILE CANCER LINK >
- NO MECHANISM FOR HEALTH EFFECTS FROM MOBILES, SAY ENGINEERS >
- A VICIOUS CIRCLE OF CONCERN, SYMPTOMS
AND MORE CONCERN CAUSES HYPERSENSITIVITY >
- CHILDREN'S HEALTH NOT AT RISK FROM MOBILES SAYS EXPERT REVIEW >
- CHILDREN ADVISED TO 'TEXT NOT CALL' BY WELSH MEDICAL CHIEF >
- UK HEALTH SERVICE SAYS MOBILE PHONES UNLIKELY TO MAKE YOUR EARS RING >
- PARENT'S SCHOOL WI-FI CONCERNS UNWARRANTED SAYS HEALTH CANADA >
- AUSTRALIAN CANCER EXPERT REFUTES CLAIMS OF A MOBILES LED
'BRAIN TUMOUR PANDEMIC' >
- IN BRIEF >

EME UPDATE



NEW 30 YEAR STUDY TO EXPLORE POTENTIAL HEALTH RISKS OF MOBILES

One quarter of a million European mobile phone users will subject their health and wellbeing to scientific analysis for up to 30 years in a study to identify if there are health risks associated with using mobile phones over a long period.

The study, known as [COSMOS](#) (cohort study on mobile communications), is the largest research project ever to investigate the potential health risks of long-term mobile phone use. The project will involve researchers and participants from Denmark, Finland, Sweden, the Netherlands and the UK.

At the launch of the UK arm of the project, [Dr Mireille Toledano](#), co-principal investigator from the school of public health at Imperial College London, said [COSMOS](#) is a very important step in the total research effort.



“For the benefit of current users and for future generations, it is important for us to carry out long-term health monitoring of a large group of mobile phone users so that we can identify if there are any possible health effects from this new and widespread technology that has become so central to our everyday lives,” Dr Toledano said. The study will require participants to complete an online questionnaire

about their mobile phone use, health and lifestyle. The researchers will monitor participants’ mobile phone use and any health problems they might develop, including cancers and neurological diseases such as Alzheimer’s disease, for at least the next 20 years. They will also analyse whether any changes in the frequency of symptoms, such as headaches and sleep disorders, are related to mobile phone usage.

In one of the first [joint papers](#) to come out of the project, Dr Joachim Schüz from the Institute of Cancer Epidemiology at the Danish Cancer Society discussed advantages of the design of the COSMOS study.

“A prospective cohort study conducted with appropriate diligence and a sufficient sample size, overcomes many of the

continued next page ...

- NEXT >
- BACK >
- HOME >
- PRINT >
- EXIT >

EME UPDATE



NEW 30 YEAR STUDY TO EXPLORE POTENTIAL HEALTH RISKS OF MOBILES

– continued from previous page

shortcomings of previous studies. Its major advantages are exposure assessment prior to the diagnosis of disease, the prospective collection of objective exposure information, long-term follow-up of multiple health outcomes, and the flexibility to investigate future changes in technologies or new research questions,” Dr Schüz said.

“Scientists have been looking at the effects of mobile phones on health for several years and so far, reviews of the research have been reassuring with respect to mobile phone use and health problems in the short term. However, as mobile phones have only been in widespread use for a relatively short time, we haven’t been able to carry out long-term studies until now,” said [Professor Paul Elliott](#), principal investigator from the



Dr Joachim Schüz says the COSMOS study will overcome many of the shortcomings of previous studies.

school of public health at Imperial College London.

“COSMOS aims to fill in important gaps in our knowledge of [mobile phones and health](#). By looking at large numbers of people across Europe over a long period of time, we should be able to build up a valuable picture of whether or not

there is any link between mobile phone use and health problems over the long term,” Professor Elliott said.

The COSMOS study follows previous studies on the use of mobiles which have been consistently reassuring, such as the recently published [INTERPHONE study](#), which found no overall evidence mobile phone use is associated with an increased risk of brain cancer for up to 12 years of use.

Another cohort study conducted by [Danish researchers](#) which followed 420,000 mobile phone users for up to 21 years also found no evidence of a link with cancer. This is supported by whole of life animal and cellular studies which have failed to produce a substantiated link with adverse health effects.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



OUT OF AFRICA: HEALTH AUTHORITIES BACK MOBILE SAFETY STANDARDS

More than 100 eminent scientists, policy makers and health authorities converged on the Kenyan capital of Nairobi in July in an effort to educate African leaders about science based electromagnetic field (EMF) policies at the International Telecommunication Union's (ITU) [workshop](#) on 'Delivering Good Quality Telecommunication Service in a Safe Environment in Africa'.

World Health Organization

The [World Health Organization's](#) (WHO) EMF project coordinator [Dr Emilie van Deventer](#) told the audience that despite some scientific uncertainty, overall there is no known health risk associated with exposure to the low powered radio signals used by mobile phones and base stations.



Dr Emilie van
Deventer

"To date, research does not suggest any consistent evidence of adverse health effects from exposure to RF fields at levels below those that cause tissue heating," Dr van Deventer said in her presentation.

She also made reference to the recently updated [WHO fact sheet on mobile phones](#), which says "to date, no adverse health effects have been established for mobile phone use."

Dr Van Deventer said research on the long-term effects of mobile phones is limited, but that the available evidence indicated mobile phone use of more than 10 years is not associated with an increased risk of brain cancer. She said research showing an increased risk for heavy users suffered from methodological biases and errors which prevent a causal interpretation.

Dr Van Deventer also noted the [WHO's fact sheet on electromagnetic hypersensitivity](#), and said "research has not been able to provide support for a causal relationship between exposure to EMF and self-reported symptoms."

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

OUT OF AFRICA: HEALTH AUTHORITIES BACK MOBILE SAFETY STANDARDS

– continued from previous page

Dr Van Deventer said the WHO constantly reviews the scientific literature on the health effects of EMF exposure and provides information on risk management. She said that although the WHO does not develop EMF standards, it does facilitate international consensus to establish limits on human exposure to EMF that provide protection against all known adverse health effects. Dr Van Deventer pointed to the [WHO's Model Legislation](#) which assists countries without appropriate legislation to protect their population from EMF.

Dr Van Deventer concluded by saying there is a "need for clear roles and responsibilities in government on this topic, a need for adoption and compliance of

Model Legislation

- To assist countries without appropriate legislation to protect their population from EMF
- Provides a legal framework to provide protection from EMF



http://www.who.int/peh-emf/standards/emf_model/en/index.html

Nairobi, Kenya, 26 – 27 July 2010

49

A slide from Dr Emilie van Deventer's presentation promoting the WHO's Model Legislation for EMF.

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

OUT OF AFRICA: HEALTH AUTHORITIES BACK MOBILE SAFETY STANDARDS

– continued from previous page

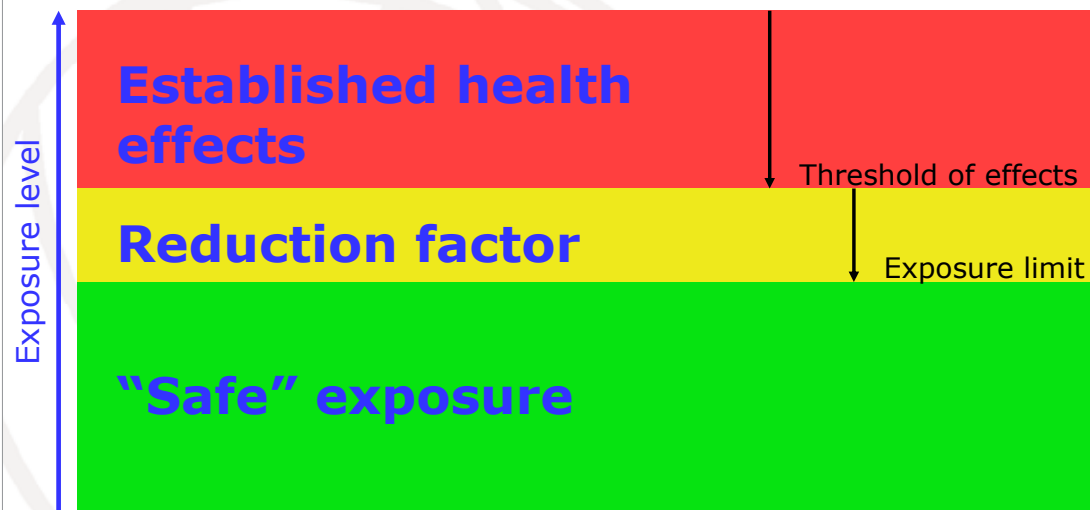
health-based standards, a need for a public information program and dialogue with stakeholders, and a need for promoting research to reduce uncertainty.”

Safety standards

Also presenting at the workshop was the Chairman of the [International Commission on Non-Ionizing Radiation Protection](#) (ICNIRP), which develops international guidelines on limiting exposure to non-ionizing radiation.

ICNIRP Chairman Dr Paolo Vecchia told the [workshop](#) that “...the scientific literature published since the 1998 guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields.”

Threshold-based approach



Nairobi, Kenya, 26 – 27 July 2010

14

A slide from Dr Vecchia's presentation explaining how the 'Reduction factor' acts as a safety margin between the exposure level known to cause health effects and a safe level of exposure.

continued next page ...

OUT OF AFRICA: HEALTH AUTHORITIES BACK MOBILE SAFETY STANDARDS

– continued from previous page

Dr Vecchia said the restrictions are based on science and only established effects are considered. He emphasized that all published studies are taken into consideration and the evidence is weighted upon its scientific quality, replicability and consistency. Dr Vecchia said although the guidelines were last updated in 1998, “old does not necessarily mean not valid any longer.”

“Long duration is in general a proof of good norms [and] a balance between stability and updating is needed,” Dr Vecchia said.

He added that social pressure, inconsistent regulatory approaches and longevity were not good reasons to revise a science-based standard.

“The revision of a standard is a long process that involves different



When speaking about the validity of the safety standards, ICNIRP Chairman Dr Paolo Vecchia said “old does not necessarily mean not valid any longer.”

bodies,” he said, noting that the process will include ICNIRP, the International Agency for Research on Cancer (IARC) and the WHO.

“The scientific evidence is consolidated and risk evaluations are unlikely to change. Most probably, the next revision of RF guidelines will not compromise the adequateness of present limits. Relevant modifications of basic restrictions and reference levels are unlikely to occur in the future,” Dr Vecchia said.

He noted that ICNIRP recently released a [statement](#) confirming

the validity of the present EMF exposure guidelines.

“ICNIRP recently published a [review](#) of the scientific evidence on the health effects of radiofrequency exposure from mobile phones. We found the existing evidence did not support an increased risk of brain tumours in mobile phone users within the duration of use yet investigated,” Dr Vecchia said.

“The subsequent publication of the [Interphone study](#) has added greatly to the volume of evidence available. [ICNIRP](#) believes on preliminary review of the results, however, that they do not change the overall conclusions. ICNIRP therefore considers that the results of the Interphone study give no reason for alteration of the current guidelines.”

EME UPDATE



SAN FRANCISCO SAR RETAIL DISPLAY ORDINANCE HEATS UP SAFETY DEBATE IN USA

The mobile phone safety debate has heated up in the USA after the city of San Francisco passed an ordinance which will require all cell phone retailers in the city to display emission levels of each model of phone at the same size as the phone's price.

"It's information that's out there if you're willing to look hard enough. And we think that for the consumer for whom this is an area of concern, it ought to be easier to find," Tony Winnicker spokesman for the San Francisco Mayor told the [New York Times](#).

When Mayor Gavin Newsom introduced the proposal in January, he compared it to chemical companies and the toxic levels of chemicals in products.



San Francisco Mayor Gavin Newsom passed an ordinance requiring cell phone retailers to display emission levels in stores.

"In addition to protecting the consumers' right to know," said Newsom, "this legislation will encourage telephone manufacturers to redesign their devices to function at lower radiation levels. This is similar to Prop 65, which dramatically reduced public exposure to toxic materials because chemical companies removed toxic

ingredients from their products in order to avoid product warnings."

The US wireless industry association, the CTIA, responded to the San Francisco ordinance by [suing](#) the city.

"CTIA has filed this lawsuit to prevent consumer confusion. The problem with the San Francisco ordinance is not the disclosure of wireless phone SAR values – that information is already publicly available. Consumers can learn a device's SAR value from a number of public sources, and the value is often included in user manuals and listed on the websites of manufacturers and the FCC," CTIA said in a [media release](#).

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



SAN FRANCISCO SAR RETAIL DISPLAY ORDINANCE HEATS UP SAFETY DEBATE IN USA

– continued from previous page

“CTIA’s objection to the ordinance is that displaying a phone’s SAR value at the point-of-sale suggests to the consumer that there is a meaningful safety distinction between FCC-compliant devices with different SAR levels.”

The Federal Communication Commission (FCC) agrees that SAR values cannot be used to “reliably compare individual cell phone models” in its consumer facts bulletin – [SAR For Cell Phones: What It Means For You.](#)

But there is no need for similar laws in Australia says the Australian Mobile Telecommunication Association (AMTA), because SAR information is widely available to consumers.

“Australian consumer have had access to SAR information in handset manuals and company websites since 2001,” Chris Althaus, AMTA CEO, said.

“I recognise that SAR can be hard to find on some websites, because it is not something most consumers are looking for and sometimes it gets lost amongst all the other data, but we support their right to have access to the information.

“In Australia SAR values for all the latest and most popular phones are regularly provided by the Australian Consumer Association (ACA) which includes radiation levels in the reviews published in its magazine, *Choice*.

continued next page ...



NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



SAN FRANCISCO SAR RETAIL DISPLAY ORDINANCE HEATS UP SAFETY DEBATE IN USA

– continued from previous page

“It is important that consumer bodies provide information on safety compliance and we support SAR information being published by the ACA in *Choice*,” he said.

However, SAR needs to be explained well because it is not a good measure of a phone’s safety or the best way to reduce exposure for consumers, Mr Althaus said.

“The SAR level reported by manufacturers is the maximum achieved in laboratory test conditions and the actual SAR level of the phone while operating can be well below this value,” he said.

“In everyday use mobile phones generally operate well below the safety limits because phones automatically adjust to the minimum power level needed to successfully connect and maintain a quality call. This allows them to operate more efficiently to preserve battery life, increase talk time and reduce interference.

The WHO agrees the best way to reduce exposure is by simply using a hands-free kit to keep the phone away from your head and body.”

SAR (Specific Absorption Rate) is the unit of measurement used in the safety standard. It is the amount of energy absorbed by the body and is expressed in watts per kilogram. The safety limit in Australia is based on the International Commission for Non-Ionizing Radiation Protection (ICNIRP) limit which is 2.0 watts per kilogram averaged over ten grams.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



RESEARCH ON CHILDREN AND TEENS IS A HIGH PRIORITY SAYS WHO

The World Health Organisation (WHO) says research on children and teenagers about the potential health effects of their mobile phone use is a high priority in their latest analysis of future research needs for radiofrequency fields (RF) and health.

“As yet, little research has been conducted in children and adolescents and it is still an open question whether children are more susceptible to RF EMF since the brain continues to develop during childhood and adolescence. Also, children are starting to use mobile phones at a younger age,” the WHO said.

They have also outlined the need for population studies to monitor the trends in brain tumours using cancer registries and exposure data on kids and teenagers in their latest research agenda.

“If there is a substantial risk associated with mobile phone use, it should be observable in data sources of good quality. Such time trend analyses can be performed quite quickly and inexpensively. By using modern statistical techniques for analysing population data it should be possible to link changes in exposure prevalence in the population to the incidence of brain tumours and, if high-quality surveillance data are available, the incidence of other diseases at the population level,” the WHO said.

A range of studies of children of different ages, to look for anyway mobiles could affect sleep and changes in brainwave patterns is also identified as a high priority.

“These studies should include validation of these effects using a range of brain imaging methods.

continued next page ...



- [NEXT >](#)
- [BACK >](#)
- [HOME >](#)
- [PRINT >](#)
- [EXIT >](#)

EME UPDATE



RESEARCH ON CHILDREN AND TEENS IS A HIGH PRIORITY SAYS WHO

– continued from previous page

They should also include studies investigating possible thresholds and dose-response relationships at higher exposure levels such as those encountered during occupational exposure.”

The increased public exposure to RF fields has made its effects on human health a topic of concern for scientists and the general public, the WHO said.

“To respond to these concerns, an important research effort has been mounted over the past decade and many specific questions about potential health effects of RF fields have already been investigated by scientists around the world. Nonetheless, several areas still warrant further investigation and the rapid evolution of technology in this field is raising new questions,” the WHO said.



**World Health
Organization**

“To avoid unnecessary duplication of effort and to make sure that all important questions are being studied, research coordination on a global level is important.”

To achieve this, the WHO regularly publishes [research agendas](#) for a range of health topics. The recently published 2010 *Research*

Agenda for Radiofrequency Fields outlines the latest research needs in population studies, human laboratory studies, animal studies and cellular studies.

Previous research agendas for RF have been instrumental in assisting countries to develop national funding priorities in this area, the WHO said.

Many large research funding agencies use the WHO research agendas as a basis for their funding research. Since 1997 over \$200million of funding for research has been conducted to complete these agendas.

This latest RF agenda has been developed ahead of the major [risk evaluations](#) on RF that the WHO and its agencies are due to carry out over the next two years.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



US NATIONAL CANCER INSTITUTE FINDS NO LINK BETWEEN MOBILE PHONES AND BRAIN CANCER RATES

Researchers from the US National Cancer Institute (NCI) say widespread mobile phone use has been a common part of everyday life now for a sufficient amount of time to detect any impact it may have on the incidence of brain cancer.

According to NCI, there is no evidence to support a possible link between the widespread use of mobile phones and brain cancer in the USA following the results of a new analysis of brain cancer rates.

Dr Peter Inskip and colleagues from [NCI's Division of Cancer Epidemiology and Genetics](#) used [NCI's SEER database](#) to examine brain cancer incidence trends between 1977 and 2006.



Dr Peter Inskip says the sharp increase in cell phone use in the past decade is not linked with brain cancer.

"In almost all age groups and in both men and women, the [trends for brain cancer](#) during these years were, if anything, slightly downward, indicating the massive increase in cell phone use during this time period is not linked with brain cancer," the researchers said.

The one exception was a statistically significant increasing trend among females in their twenties, but not males.

"This increase, however, was driven by cancers in the frontal lobe of the brain, which is not where the researchers would have expected to see an effect from cell phones. Studies have shown that other parts of the brain are more highly exposed to the radiofrequency radiation from cell phones," an [NCI bulletin](#) said.

Since the early 1990s, incidence rates have been flat or decreasing, according to Dr Inskip. During the period when the use of mobile

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



US NATIONAL CANCER INSTITUTE FINDS NO LINK BETWEEN MOBILE PHONES AND BRAIN CANCER RATES

– continued from previous page

phones was increasing sharply, the overall incidence of brain cancer changed little, he said.

“The use of cellular telephones has grown explosively during the past two decades, and there are now more than 279 million wireless subscribers in the United States. If cellular phone use causes brain cancer, as some suggest, the potential public health implications could be considerable. One might expect the effects of such a prevalent exposure to be reflected in general population incidence rates, unless the induction period is very long or confined to very long-term users,” the researchers said.



However, Dr Inskip suggests “sufficient time has elapsed since the use of cellular telephones began that one would expect to see cases with shorter than average

induction periods.” In conclusion, the researchers say, “overall, these incidence data from the United States based on high-quality cancer registries do not provide support for the view that use of cellular phones causes brain cancer.”

The US findings are consistent with a recent [study](#) of brain cancer incidence trends in four European countries. That study found no change in rates from 1998 to 2003, the period when possible associations between mobile phone use and cancer risk would likely be apparent assuming an induction period of 5 to 10 years.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



US PRESIDENT'S CANCER EXPERTS DISMISS MOBILE CANCER LINK



A special report on how to reduce environmental cancer risks prepared for US President, Barack Obama, in April by the President's Cancer Panel has concluded that no consistent or conclusive scientific evidence exists to support a link between mobile phone use and cancer.

The [2008-2009 President's Cancer Panel report](#) specifically examined the impact of environmental factors on cancer risk, including the possible risk posed by electromagnetic fields used by mobile phones. The report also highlighted the key barriers to better understand and reduce environmental and occupational carcinogenic exposures.

"The use of cell phones and other wireless technology is of great concern, particularly since these devices are being used regularly by ever larger and younger segments of the population. At this time, there is no evidence to support a link between cell phone use and cancer. However, the research on cancer and other disease risk among long-term and heavy users of contemporary wireless devices is extremely limited," the report said.

The [Panel](#) noted that while mobile phone use has increased dramatically in recent times, there has also been a change in the way people use the devices.

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

US PRESIDENT'S CANCER EXPERTS DISMISS MOBILE CANCER LINK

– continued from previous page

“At the same time, patterns of cell phone use appear to be changing, with a rising proportion of people using headsets or using the phone primarily to send and receive text messages. Using a cell phone in these ways dramatically reduces the time during which the phone is held against the head, and therefore, reduces individuals’ cranial exposure to RF,” the report said.

The report states considerable disagreement exists within the scientific community regarding potential harm due to RF exposure from cellular phones and other wireless devices, and many of the available studies have been interpreted quite differently by researchers on both sides of the issue.

“Brain cancer incidence trends by age from 1973–2005 show that incidence rates have not increased apace with the explosive rise in cell phone use in the United States since 1992. Studies also have assessed and failed to show an increased risk of cancer of the parotid gland, acoustic neuroma, meningioma, or uveal melanoma, even among longer-term (5–10 years) and heavier users,” the reports said.

“Thus, while considerable research has been conducted on cancer risk due to RF from cell phones, cell phone towers, and other wireless devices, the available data are neither consistent nor conclusive, and a mechanism of RF-related cancer has yet to be identified.”

Thus, while considerable research has been conducted on cancer risk due to RF from cell phones, cell phone towers, and other wireless devices, the available data are neither consistent nor conclusive, and a mechanism of RF-related cancer has yet to be identified.

[NEXT >](#)
[BACK >](#)
[HOME >](#)
[PRINT >](#)
[EXIT >](#)

EME UPDATE



NO MECHANISM FOR HEALTH EFFECTS FROM MOBILES, SAY ENGINEERS



There is no scientific evidence to suggest mobile phone use is a health risk, and no plausible scientific explanation of a mechanism of how mobile phones could cause harm, according to the world's leading professional body for the engineering and technology community.

The Institution of Engineering and Technology's (IET) Biological Effects Policy Advisory Group (BEPAG) updated its [position statement](#) on the possible harmful health effects of electromagnetic fields (EMF) in May, concluding that exposure to the low powered radio signals used by mobile phones is not associated with health risks.

"BEPAG has concluded that the balance of scientific evidence to date does not indicate that harmful effects occur in humans due to low-level exposure to EMFs. This

conclusion remains the same as that reached in its previous [position statements](#), the last being in May 2008, and our findings have not been substantially altered by the peer-reviewed literature published in the past two years," the IET said.

"Experimental studies have failed to demonstrate consistent effects and no mechanism has been established whereby low-level exposure to radiofrequency fields can cause harm."

The IET also sent a message to policy makers, urging caution when reacting to concerns from the community.

"In summary, the absence of robust new evidence of harmful effects of EMFs in the past two years is reassuring and is consistent with findings over the past decade.

continued next page ...

- NEXT >
- BACK >
- HOME >
- PRINT >
- EXIT >

NO MECHANISM FOR HEALTH EFFECTS FROM MOBILES, SAY ENGINEERS

– continued from previous page

The widespread use of electricity and telecommunications has demonstrable value to society, including health benefits. BEPAG is of the opinion that these factors, along with the overall scientific evidence, should be taken into account by policy makers when considering the costs and benefits of both the implementation of precautionary approaches to public exposure and also in the development of public exposure guidelines.”

Following its review of the research, the [IET](#) called on scientists to be more accountable for their actions in response to a number of poorly conducted research studies that erroneously claim mobile phones cause health effects.

“BEPAG continues to hold the view that scientists have a responsibility



to ensure that their findings are as robust as possible before publication. It remains concerned that pressures on scientists to publish their work may encourage the reporting of apparent effects that have not been adequately investigated. BEPAG regards the independent replication of experimental studies as essential in order to improve the quality of the existing literature and to verify

any claimed effect. It recommends that isolated reports of biological effects or epidemiological findings should be treated with caution, until confirmed by independent groups. BEPAG is also of the view that a journal which publishes an EMF study should be under an obligation to publish a well-conducted replication study if this fails to confirm the original findings,” the IET said.

The Institution of Engineering and Technology say there is no plausible scientific explanation of a mechanism of how mobile phones could cause harm.

EME UPDATE



A VICIOUS CIRCLE OF CONCERN, SYMPTOMS AND MORE CONCERN CAUSES HYPERSENSITIVITY

A vicious circle of concern about the potential effects of the radiation from mobile phones or household appliances which in turn causes real symptoms and increases concern and further symptoms might be the cause of electromagnetic hypersensitivity, Hungarian researchers have found.

The effect has been enhanced by exaggerated media stories and unnecessary warnings by government agencies, they add.

[Electromagnetic hypersensitivity \(EHS\)](#) is a medically unexplained illness in which self reported symptoms, such as skin irritations, headaches and fatigue, are reported following exposure to electrical appliances or mobile phones.

Researchers from [Eötvös Loránd University](#) in Budapest, Hungary, exposed 40 healthy university students to fake exposures while they sat in a chair above 2 large electromagnetic coils and these appeared to be connected to “an impressive electric power supply with coloured lights and an operating panel.” In fact, the coils were not connected to anything.

Each student – alone in the room – was asked to sign a consent form and complete several questionnaires by computer, such as to rate their electro-sensitivity and what symptoms they expected to experience when the field was turned on.

continued next page ...



A subject sits in a chair above two large electromagnetic coils which are not connected to anything.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



A VICIOUS CIRCLE OF CONCERN, SYMPTOMS AND MORE CONCERN CAUSES HYPERSENSITIVITY

– continued from previous page

The student was then informed that the first exposure was coming and that it would be to a weak magnetic field, comparable to everyday exposures. The student was asked to switch on the power supply and monitor themselves for 10 minutes, this time identifying and rating any symptoms they experienced.

This was repeated but this time they were told the field would be very strong, although within safety guidelines.

The researchers used a variety of statistical tests to analyse the data, and found links between the expectation of symptoms, the symptoms experienced and the expected strength of the fake exposure.

“A considerable part of complaints of healthy people with different

degrees of [EHS] seems to stem from a vicious circle of psychosocial factors to a great extent,” the researchers concluded.

“Information from the media and policy makers about health hazards of EMF pollution generate negative expectations and enhance the perception of risk. Increased expectancies and perceived risk lead people to monitor themselves and search for symptoms during EMF exposures.”

“...and finally these people label themselves as [EHS] sufferers, which, in turn, feeds the media for stories and precautionary advice of governmental organisations.”

The [study](#) was funded by the Hungarian National Scientific Research Fund.



NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



CHILDREN'S HEALTH NOT AT RISK FROM MOBILES SAYS EXPERT REVIEW



The health of children is not put at risk by exposure to the low powered radio waves from mobile phones or their base stations, according to a two-year expert review of all available scientific papers on the subject.

The [report](#), published by the Mensch Umwelt Technik (MUT) of the Jülich Research Institute in Germany, found no increased risk for several health endpoints, including cancer, fertility and cognitive effects.

“Overall, the review of the existing scientific literature does not support the assumption that children’s health is affected by RF EMF exposure from mobile phones or base stations,” the report concluded.

Although it noted that in some areas, such as cognitive effects, more research is still needed.

The report is based on the scientific opinions of seven international recognized experts and four advisory experts from Australia, Austria, Belgium, Germany, Italy and Switzerland as well as on a series of workshop discussions. An important criterion for the selection of the experts was that they have a strong record in EMF research, as documented by publications in internationally recognized and peer-reviewed academic journals.

The experts found no evidence that mobile phone exposures result in any increased risk of brain cancer in children.

“The available evidence does not provide an indication for an association between RF EMF exposure and brain cancer in children,” the report said.

continued next page ...

- NEXT >
- BACK >
- HOME >
- PRINT >
- EXIT >

EME UPDATE



CHILDREN'S HEALTH NOT AT RISK FROM MOBILES SAYS EXPERT REVIEW

– continued from previous page



Despite the often-held belief that radiation from mobiles has more of an effect on children because their thinner skulls let more microwaves penetrate into the brain, the group found no evidence of increased exposure.

“For children under 8 years no conclusive evidence exists for the assumption that the SAR level in children’s head is higher than for adults,” the report said.

The researchers added that even if future research did prove this to be incorrect, the international safety standards comprise large safety margins and real-world whole body exposure levels are usually far below the safety standard limit.

They also found it was “very unlikely” that children in the womb are at higher risks.

“For effects on embryonic and fetal development the picture is clear: No adverse effects have been detected at non-thermal exposure levels by the available studies,” the report said.

The report is consistent with the conclusions of a 2006 workshop that specifically investigated the issue of mobiles and children. Hosted by the German Research Association for Radio Application (FGF) and EMF-Net, the workshop concluded that the available scientific evidence does not suggest any significant reason to be concerned about the use of mobile phones by children and teenagers.

[NEXT >](#)
[BACK >](#)
[HOME >](#)
[PRINT >](#)
[EXIT >](#)

EME UPDATE



CHILDREN ADVISED TO 'TEXT NOT CALL' BY WELSH MEDICAL CHIEF



Children are urged to text rather than make calls on mobile phones, in new safety leaflets published by the chief medical officer for Wales.

Dr Tony Jewell also advises them to use a hands-free kit if possible or keep conversations short when calling.

“Protecting the health of the young people of Wales is a priority, and although current research indicates that using mobile phones does not appear to cause health problems, more work is still to be done” Dr Tony Jewell, the Chief Medical Officer for Wales said.

“We don’t expect young people to stop using mobile phones all together, but there are a few simple steps they can take to protect their health for the future. It is always better to be safe than sorry.” he said in [statement](#).

The Welsh Assembly Government published the two bilingual leaflets which provide young people and their parents precautionary guidance on mobile phone use.

One leaflet is aimed at [primary school children](#) and the other at [secondary school pupils](#).

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



CHILDREN ADVISED TO 'TEXT NOT CALL' BY WELSH MEDICAL CHIEF

– continued from previous page

The leaflets also offer advice on how children can avoid mobile phone theft and what to do if they receive unwanted texts or calls on their mobiles.

Welsh Health Minister Edwina Hart said there had been an interest for information to be made available for children on mobile phones and their health.

“These leaflets, which children across Wales helped shape, provide guidance on safe mobile phone use,” she explained.

“The precautionary advice has been put in an easy and understandable



Dr Tony Jewell advises children to text or use a hands-free kit if possible.

language and format for children and young people.”

“It is entirely understandable that some parents may be concerned about mobile phone safety and their children’s use of mobiles.” Mr Chris Althaus, Australian Mobile

Telecommunications Association CEO said in response to the move.

“We support the view of health authorities, such as the WHO, that people or parents who are concerned can take a number of similar [practical steps](#) to reduce their exposure such as using a hands-free kit or loudspeaker so the mobile is away from the head and body, using text messages when practical and limiting the length of calls,” Mr Althaus said

The [Australian Radiation Protection and Nuclear Safety Agency \(ARPANSA\)](#) also provides similar advice, he said.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



UK HEALTH SERVICE SAYS MOBILE PHONES UNLIKELY TO MAKE YOUR EARS RING

The UK National Health Service (NHS) says there is no clear link between mobile phone use and tinnitus – a condition that causes ringing in the ears – despite recent media reports in the UK which claim a substantive link with the disease.

“Talking on a mobile phone could dramatically increase the risk of the agonising ear disorder tinnitus, research suggests,” the [Daily Mail reported](#).

Austrian scientists from the Medical University of Vienna published a small [study](#) in July which included a borderline statistical result that use of a mobile phone for more than four years could almost double the risk of tinnitus.

However, an [analysis](#) of the research by NHS experts found limitations in the study’s design make it difficult to draw any firm conclusions.

“The risk of tinnitus did not appear to bear a relationship to using a mobile phone for more than 10 minutes a day, having ever used a mobile phone, or the number of calls a person made. While there was a borderline association between the risk of developing tinnitus and using a phone for more than four years, this remains questionable,” the NHS said.

The [BBC highlighted](#) that this was a small study, but all of the news reports, including the BBC’s,

continued next page ...



NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



UK HEALTH SERVICE SAYS MOBILE PHONES UNLIKELY TO MAKE YOUR EARS RING

– continued from previous page



emphasised ‘increased risks’ that were, in fact, not [statistically significant](#).

The [Daily Mirror reported](#) that, of the subjects with tinnitus, “virtually all were mobile phone users”, but it did not point out that virtually all of the people without tinnitus were mobile phone users too, the NHS said.

“Overall, the lack of clear associations and the small study size mean this research does not provide sufficient evidence to suggest that mobile phones increase the risk of developing tinnitus,” the NHS said.

Tinnitus is the sensation of hearing roaring, hissing or ringing which is

not generated by the outside world but by malfunctions in a section of the inner ear. The cause of tinnitus is not fully known but, in certain cases, the problem is associated with some ear diseases, head injury, exposure to loud sounds or the use of certain medications.

“The researchers said that the prevalence of tinnitus has increased over the past decade and is currently 10-15% in industrialised countries. They say that the rise in incidence may be due to better awareness of the condition and better diagnostic tools, but there may also be environmental factors that have contributed to the increase,” the NHS said.

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



PARENT'S SCHOOL WI-FI CONCERNS UNWARRANTED SAYS HEALTH CANADA

Health Canada have issued a statement which says exposure to the radio wave radiation from Wi-Fi systems is not dangerous to the public, in an attempt to reduce community concerns that Wi-Fi systems being installed in Canadian schools are harming school children.

“Based on scientific evidence, Health Canada has determined that exposure to low-level radiofrequency energy, such as that from Wi-Fi systems, is not dangerous to the public,” the [statement](#) says.

“Radiofrequency energy levels from Wi-Fi equipment in all areas accessible to the general public,



including school settings, are required to meet Health Canada’s safety guidelines,” said Health Canada. “The limits specified in the guidelines are based on an ongoing review of thousands of published peer reviewed scientific studies on the health impacts of radiofrequency energy ...[and] there is no convincing scientific evidence

that this equipment is dangerous to schoolchildren or to Canadians in general.”

The health controversy started when a school board in central Ontario, Simcoe County District School Board, started to install wireless internet access in classrooms to support 21st century learning programs.

Simcoe County is about 100 kilometres north of Toronto and includes communities such as Barrie, Collingwood and Alliston.

A group of parents from the Mountain View Elementary School community in Collingwood started to raise concerns regarding the

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



PARENT'S SCHOOL WI-FI CONCERNS UNWARRANTED SAYS HEALTH CANADA

— continued from previous page

technology claiming it made their kids sick. They began to notice a self diagnosed trend involving childhood headaches, nausea, vertigo, and insomnia.

They formed the [Simcoe County Safe School Committee](#) when, they say, they realised their children were displaying a 'novel group of symptoms' and that the problems cleared up on weekends and holidays when kids weren't in school.

Widespread [media reports](#) of the concerns prompted some teachers to propose a province-wide ban on Wi-Fi in Ontario elementary schools. The proposal was firmly

rejected in a vote by more than 500 members of the Elementary Teachers' Federation of Ontario annual general meeting held in August.

Simcoe County District School Board will continue to allow the use of Wi-Fi in its schools.

In a recent [statement](#), the Board provided its full correspondence with Ministry of Education and the Ministry of Health and Long Term Care, both of which "affirmed the Simcoe County District School Board's use of wireless technologies and confirmed the safety of these technologies for use in classrooms."



- NEXT >
- BACK >
- HOME >
- PRINT >
- EXIT >

AUSTRALIAN CANCER EXPERT REFUTES CLAIMS OF A MOBILES LED 'BRAIN TUMOUR PANDEMIC'

One of Australia's leading cancer epidemiologists has been reported saying that claims that mobile phone users are five times more likely to develop brain tumours which could lead to a brain tumour pandemic "just don't stack up".

The *Herald Sun* in June reported that activists from the US Environmental Health Trust claimed a "reanalysis" of six major studies of mobile phones found they had substantially underestimated their potential to cause cancer.

Lead researcher Lloyd Morgan warned the findings raised the possibility of a "brain tumour pandemic" unless people changed the way they used their phones.



EME UPDATE



AUSTRALIAN CANCER EXPERT REFUTES CLAIMS OF A MOBILES LED 'BRAIN TUMOUR PANDEMIC'

[Professor Bruce Armstrong](#) of the University of Sydney, who led Australia's participation in the global Interphone study, told the *Herald Sun*, although further study of mobile phone safety was justified there was no solid evidence mobile phones were dangerous. He said suggestions that tumours were more common on the side of the head that mobile phone users rested their handsets were not borne out by any corresponding rise in brain tumour rates in the community.

"If you take those estimates of a five times increase in risk, they just don't stack up against a complete lack of evidence for increases in



Professor Bruce Armstrong said claims mobile phone users are five times more likely to develop brain tumours 'just don't stack up'.

rates of brain tumours in people who use mobile phones the most," he said.

The [Interphone project](#) was the largest study ever to investigate the possible link between mobile phone use and brain cancers. [Cancer](#)

[Council Australia](#) CEO, Professor Ian Olver, said findings from the Interphone study were consistent with other research that had failed to find a link between mobile phones and cancer.

"This supports previous research showing mobile phones don't damage cell DNA, meaning they can't cause the type of genetic mutations that develop into cancer," Professor Olver said. "However, it has been suggested that electromagnetic fields associated with mobile phones may play a role in speeding up the development of an existing cancer. The Interphone study found no evidence to support this theory."

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



IN BRIEF

LATIN AMERICAN EXPERT REVIEW FINDS NO EVIDENCE OF HEALTH RISK

A review of all the scientific studies on the possible health effects from exposure to the low powered radio signals used by mobile phones has found no overall evidence radio frequency (RF) electromagnetic fields pose a risk to human health.

The Latin American Experts Committee on Electromagnetic Fields and Human Health published their literature review in June to “address the increasing preoccupation of the general public of Latin American countries with the possible detrimental effects of exposure of humans generated mainly from base stations and cell phones, wireless data communication networks, and similar technologies.”

“We conclude, therefore, that current published RF epidemiological studies have not shown any sizable, incontrovertible and reproducible adverse health effect, and that numerous methodological flaws, along with only the few outcomes

examined so far, do not allow for firm conclusions, particularly as it relates to children and to continuous exposure for periods larger than 20 years,” the [report](#) said.

The expert group called for more studies focusing on the social and economic benefits of mobile communication technologies.

EMERGENCY CALL STATISTICS SHOW AUSTRALIANS RELY ON MOBILES FOR SAFETY

Australians continue to rely on mobile phones in times of emergencies according to new figures released in 2009 by the Australian Communications and Media Authority (ACMA) which shows mobile phones account for two thirds of all calls to emergency services in Australia.

“The proportion of calls to emergency services made from mobiles remained relatively unchanged at 63 per cent during 2008–09, compared with 64 per cent of the total calls to emergency services during 2007–08,” [ACMA's Communications Report](#) states.



“There were 10,301,011 calls to the Triple Zero and 112 emergency service numbers in 2008–09, a decrease of 1,919,185 calls (16 per cent) from 2007–08.”

“Telstra attributed the decline in emergency service call volumes to the introduction of a recorded voice announcement for the Triple Zero service in December 2008. This provided people who have accidentally dialled Triple Zero with the opportunity to hang up before being connected to

continued next page ...

NEXT >
BACK >
HOME >
PRINT >
EXIT >

EME UPDATE



IN BRIEF

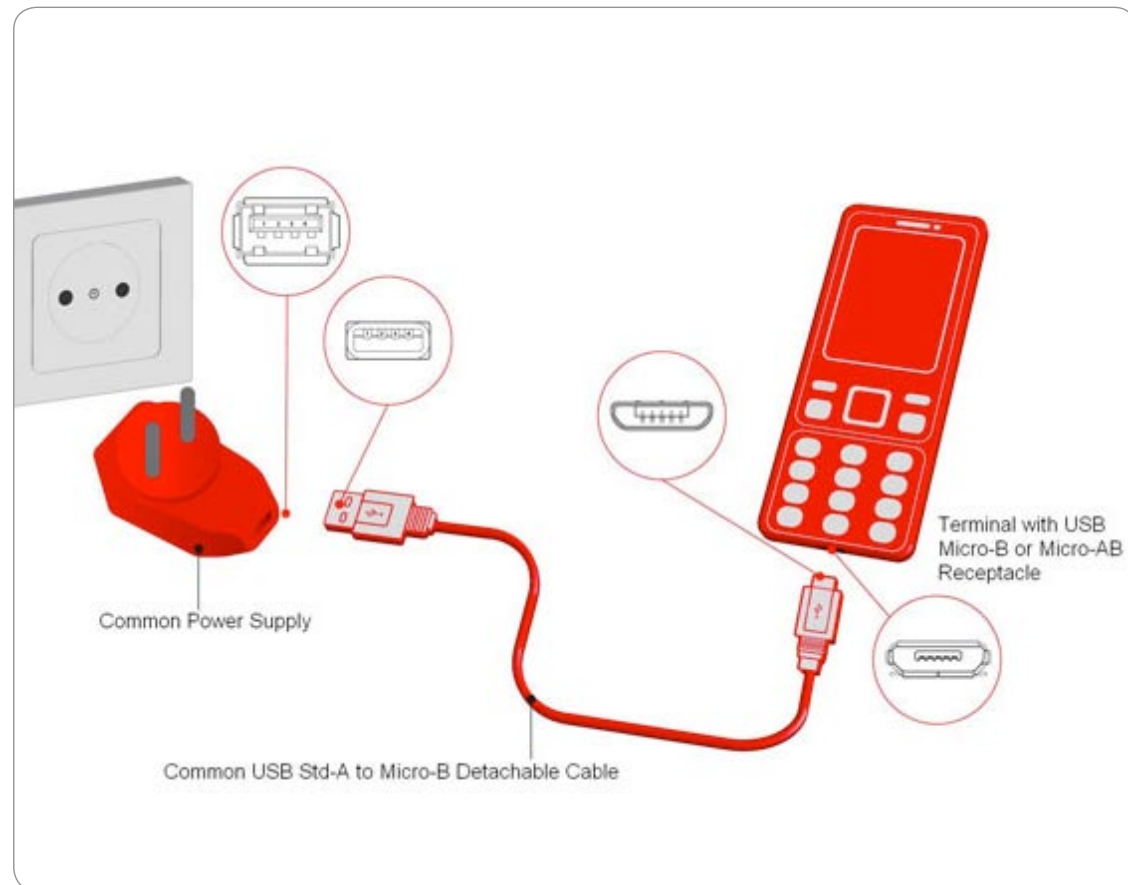
– continued from previous page

an operator, which allowed more time for the service to take genuine calls.”

ACMA also welcomed an [industry initiative](#) to address the incidence of non-genuine calls to the Triple Zero emergency call service. The industry initiative will progressively limit calls from mobile handsets being used to make repeated non-genuine calls to the Triple Zero emergency call service. Handsets from which repeated non-genuine calls are made to Triple Zero operators may be blocked across all mobile networks from being able to make calls.

MOBILE PHONE INDUSTRY SUPPORTS GLOBAL APPROACH TO COMMON PHONE CHARGERS

Leading mobile phone operators and manufacturers are working towards the 2012 date for the implementation of an energy-efficient universal charger for new mobile phones that will be available in Australia.



continued next page ...

- NEXT >
- BACK >
- HOME >
- PRINT >
- EXIT >

EME UPDATE



IN BRIEF

– continued from previous page

This issue was raised in the [Senate](#) in June with the Greens calling on the Federal Government “to legislate for the harmonization of mobile phone chargers in agreement with the mobile phone industry, similar to the agreement that has been reached in Europe”.

The Chief Executive Officer of the Australian Mobile Telecommunications Association (AMTA), Chris Althaus, said the universal charger, which should be available for the majority of all new mobile phone models in 2012, would make life simpler for all consumers, including Australians.

This global initiative of adopting a common format is led by the [GSMA](#) and will result in an estimated 50 per cent reduction in standby energy consumption and the potential elimination of up to 51,000 tonnes of duplicate chargers.

Mr Althaus said the industry in Australia welcomed the global

initiative, which was announced last year and received wide media attention.

MOBILES KILLING QUIZ NIGHTS

Quiz nights are traditionally evenings of banter, brainstorming and beer, but these days they’re more like a battleground – thanks to the mobile phone, *Adelaide’s Sunday Mail* newspaper [reports](#).

From Academy Award winners to capital cities and flags, answers to tricky questions can be Googled in seconds on most punters’ mobiles.

Not even the music round is safe, with smart phone users able to download an app that can identify mystery tunes.

With most contestants now able to discreetly look up information in seconds under the table, quizmasters are having to come up with ingenious ways to beat the cheats.



HOME >
BACK >
PRINT >
EXIT >