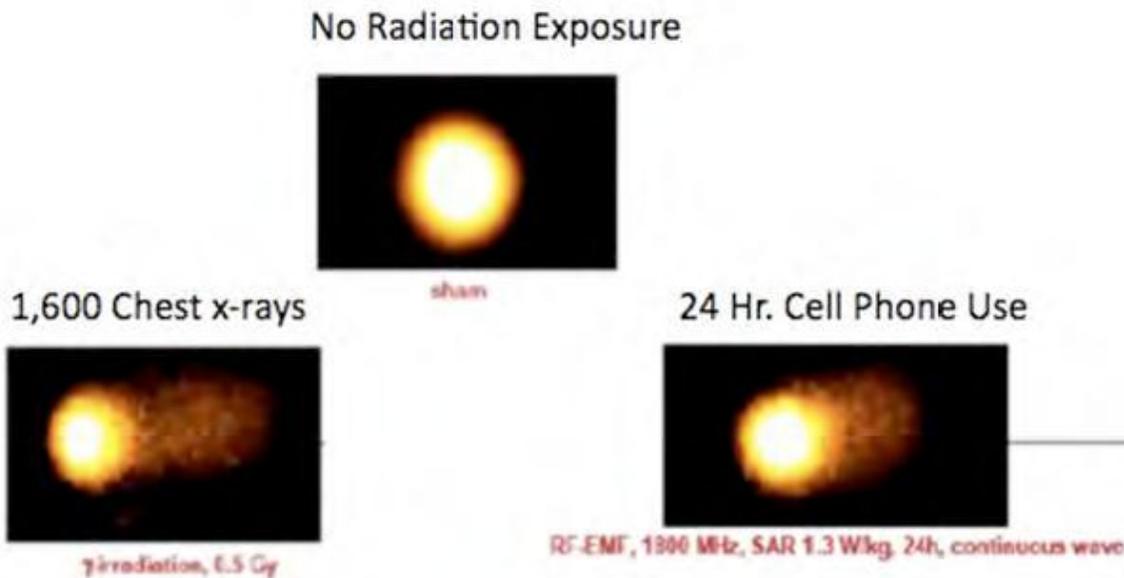




Electromagnetic Radiation in the Home, office and school

- 1) We need to recognise that our bodies are fundamentally electromagnetic and therefore vulnerable to outside sources of artificial fields. The brain, heart and nervous system are the most electromagnetic, but every single cell has an electrical charge, and the functioning of the components of each cell is based on electricity and electron transfers. Read one of the best early classics on this subject, "*The Body Electric*", by Robert Becker (<http://tinyurl.com/3ozf3g3>)
- 2) Appreciate the body's need to keep all systems working harmoniously for optimal functioning, including by synchronising with natural cycles and rhythms.
- 3) Consciously choose to minimize exposures to disruptive man- made electromagnetic fields of all kinds: electric fields, magnetic fields, dirty power, radiofrequency fields, microwaves and 'ionizing' radiation, such as X- rays and nuclear power. There is a massive and accumulating body of scientific evidence of harm to health and wellbeing from both short- term and prolonged exposures to very low intensity, non-ionizing (i.e. non- heating) electromagnetic fields (EMF), when they are at biologically active frequencies or frequency combinations.
- 4) Recognize children, toddlers, and foetuses are more vulnerable to disregulation caused by electromagnetic fields and will incur further risks from a longer lifetime of exposures.
- 5) Recognize that DNA, with its 'coil of coils' structure, is exquisitely sensitive to electromagnetic fields, including ELF, RF and ionizing radiation. It possesses the two structural characteristics of fractal antennas, electronic conduction and selfsymmetry. These properties contribute to greater reactivity of DNA to electromagnetic fields. (See International Journal of Radiation Biology, April 2011) <http://informahealthcare.com/doi/abs/10.3109/09553002.2011.538130>). As a result, risks with potentially grave consequences for future generations are now being taken in continually exposing our bodies to electromagnetic fields.
- 6) 24 hours of cell phone use (considered a 'non- heating' exposure) and 1,600 chest X-rays (high intensity exposure from ionizing radiation well- known to break electrons from atoms and to cause cancer):



Note the DNA

deterioration occurring from cell phone radiation is similar to 1,600 chest X-rays.

- 7) There is a growing body of science showing serious impacts to sperm and fertility from cell phone radiation. For example, in a study published in *Fertility and Sterility* (Vol. 89) in 2008 by A. Agarwal et al of the Cleveland Clinic, laboratory values of sperm count at an infertility clinic decreased as the duration of daily exposure to cell phones increased. In the highest exposure group, 1/3 of sperm count was lost with over 4 hours of male cell phone use, and 50% of the remaining sperm showed physical abnormalities, did not swim well or were non- viable. Documented cell phone impacts on sperm include: decreased sperm count, motility, viability, and normal morphology. (Read *ElectromagneticHealth.org*'s "Letter to Parents on Fertility and Other Risks to Children from Wireless Technologies" at <http://tinyurl.com/42basha>. Also see a recent article in *Holistic Primary Care* magazine for health professionals by Alasdair Philips, B.Sc. (Eng), DAgE, "Male Infertility Linked to Cell Phone EMF Exposure" at (<http://tinyurl.com/3gycrw3>)

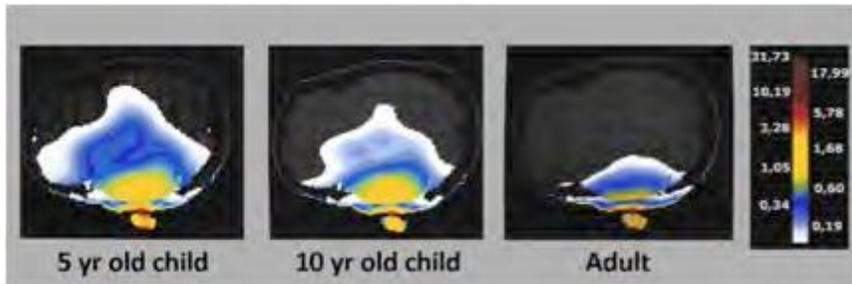


“Save the Male” Advertising Campaign by U. K.’s Radiation Research Trust. Posters being placed in men’s restrooms in London.



- 8) Never allow a child, whose immune and nervous systems are still very much in formation; whose brains absorb more radiation than adults; and who are five times more likely to get a brain tumor from cell phone use than an adult, to use a cell phone! People who begin using cell phones as teenagers or younger have a 680% increased risk of glioma. (*Hardell & Carlberg, Mobile phones, cordless phones and the risk for brain tumours. Int J Oncol 35: 517, 2009*)

Differences in Absorption of Cell Phone Radiation in the Brain by Age



- 9) Note that governments around the world are taking steps to protect children: Germany, Canada, Russia, Switzerland, United Kingdom and Finland have issued warnings with special emphasis on children, calling for use of headsets to minimize exposure to microwave radiation. France has made it illegal to market cell phones to children, will not allow use of cell phones in public schools and has called on manufacturers to create a cellular device with only texting ability, not audio. Recently, the UK Chief Medical Officer advised that children and young people under 16 be encouraged to use mobile phones for essential purposes only, and to keep calls short. Russia says children under 18 should not use cell phones. The Ministry of Telecommunication in India recommends children, pregnant women and people suffering from heart ailments limit use of mobile phones. South Korea says, "Cellular phones could harm the study atmosphere at schools and could cause health risks for kids. It is desirable to prohibit students from using cell phones at schools." The European Parliament officially recommends wireless be removed from schools, day-care, retirement centres and hospitals. (<http://tinyurl.com/3hfynym>), and the Council of Europe has recently called for drastic reductions in electromagnetic field exposure to humans from cell phone and wireless technologies:

17 May 2011: The Parliamentary Assembly Council of Europe (PACE) released Resolution 1815 on the *Potential Dangers of Electromagnetic Fields and their effect on the Environment*. This document has some excellent recommendations regarding cell phones, cordless phones, wireless baby monitors, WiFi, WLAN, WiMax, power lines, relay antenna base stations; with special concerns expressed for the protection of children and those who are electrosensitive. Click [here](#) for document.

- 1) **8.2.4. raise awareness on potential health risks of DECT wireless telephones, baby monitors and other domestic appliances which emit continuous pulse waves, if all electrical equipment is left permanently on standby, and recommend the use of wired, fixed telephones at home or, failing that, models which do not permanently emit pulse waves;**
- 2) **8.3. concerning the protection of children:**
- 3) **8.3.1. develop within different ministries (education, environment and health) targeted information campaigns aimed at teachers, parents and children to alert them to the specific risks of early, ill-considered and prolonged use of mobiles and other devices emitting microwaves;**



- 4) **8.3.2. for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises;**

18. May 31, 2011: International Agency for Research on Cancer (IARC) and World Health Organization (WHO) reclassified radio frequency electromagnetic fields as a Class 2B carcinogen (possibly carcinogen to humans). This applies to **all forms of radio frequency radiation** (and not just cell phones as some inaccurately claim). Click [here](#) for press release. Final report published in the July 1st issue of The Lancet Oncology. <http://www.youtube.com/watch?v=s4E2i5XFX9M>

No government body in South Africa has taken steps to protect the public's health. Our Government has passed the hot potato on this issue, raising the question of where in our government does responsibility for health or environmental consequences of telecommunications technologies lie?

One has to question why a more responsible and diligent approach to the assessment and monitoring of radiation-emitting technologies has not been taken. The only explanation scientists and health advocates have been able to think of is that until now it may be the case that powerful special interests and economic considerations have been influencing our government officials to turn a blind eye to the health consequences of cellular technologies, and that complete integrity, and interest in public health, has been lost.”

Research publications now show the Telecoms industry to be the most polluting on the planet exceeding that of the aviation industry.

Tips

- Children should only use cell phones in the event of an emergency (Russia recommends no under 18's and the UK recommends no U16's)
- Do not place a mobile phone on your body or against your head whilst it is switched on
- Use your cell phone on loud speaker away from your head
- Do not use a mobile phone in enclosed metal spaces such as trains, vehicles or elevators
- Pregnant women should highly restrict their use of cell phones and not work in Wi-Fi environments. (Chinese woman wear EMF shielded clothing when pregnant)
- Use a wired ADSL line for internet instead of Wi-Fi/ WiMax. Do not use routers to broadcast the signal throughout your home. Plug directly in using an ethernet cable
- Avoid Wi-Fi hotspots, especially when accompanied by children
- Avoid using DECT phones (portable), baby monitors and standing near microwave ovens when in use. It is preferable not to use a microwave oven at all.
- Avoid choosing a home near cell /broadband masts, electric pylons and sub stations.
- Do not have your cell phone next to your bed. Switch it off at night or place it in another room/ passage. Ensure your children are not sleeping with them.
- Holiday in non-Wi-Fi hotels and hotels that do not have cell antennae on the roof or near the resort.



- Ensure your child's school does not have Wi-Fi or a cell mast. Hardwired internet through ADSL is the safer option (with no routers in the classroom). Also say no to the use of i-Pads in your child's school.
- Children should have limited time on game consoles. Select consoles that come with wired controllers over wireless controllers.
- Do not sign on for wireless telephone systems. Insist on a cabled landline.
- Do not buy compact fluorescent bulbs as they emit high frequency transients – keep using incandescent or buy CLEDs.
- Do not agree to a cell/ Broadband mast on or near your property.
- Never complain about the poor reception on your cell phone.
- Search for nearby masts/antennae before buying a property.
- Disable wireless connectivity software on your computer.
- Choose a 'wired only' printer, and similar wired connections for all computer peripherals, including the keyboard and the mouse.
- If you stay with friends who use a wireless router, request the router be turned off at night so you get a good night's sleep.
- Strive to make the bedroom as electromagnetically clean as possible. This means no sources of microwave radiation (cell phones, portable phones, TVs, wireless routers or computer equipment). Switch off at the wall and unplug if you have a TV in the room.
- Be conscious of the amount of metal in the environment because it reflects radiation, creating unknown hotspots.
- Avoid airlines with in- flight wireless.
- Become self-reliant and learn to measure EMFs and to shield yourself against EMFs.
- Say no to smart meters.
- Say no to more powerful technologies such as LTE/4G that will further impact health and environment as has been seen in the trial areas.
- Lobby Government and political parties for change and legislation to protect the public.
- Promote the roll-out of optic fibre into the home, school and office to reduce environmental and health impacts from microwave radiation.

FOR FURTHER INFORMATION : WWW.EMRRFSA.ORG





Reality check

Wireless connectivity has a price

“There are no levels that have been declared safe for children except 0 V/m.”

- Professor Olle Johansson, The Karolinska Institute, Stockholm, Sweden.

What is the future of our children with no legislation in South Africa to protect them in their homes and places of study and play? Cancer? Neurological disorders? ADD? Epilepsy? Immune system deterioration? Blood disorders? Early arthritis? Diabetes? MS? Infertility? Autism? Alzheimers?

Did you know? • Russia and the Seletun Scientific statement recommends that U18's and pregnant women do not use cell phones • Taiwan removed all telecom masts (1500) from or near schools in 2007 • Switzerland and France have removed WiFi from schools and replaced it with fibre-optics • Schools worldwide have removed WiFi and ensured they are hard wired • India prohibits the use of children or pregnant women in cell phone advertisements • France has prohibited the use of WiFi in its public libraries and some cities have removed WiFi completely • Cell masts are not permitted at schools in France, Switzerland, Germany, Taiwan, New Zealand, Italy, Australia, Sweden, Finland and some parts in the USA.

The World Health Organisation has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans.

The Parliamentary Assembly of the council of Europe has advised its 47 member states to put in place information and awareness campaigns on the risks of the long-term biological effects of EMFs, especially targeting children, teenagers and young people of reproductive age.

The Electromagnetic Radiation Research Foundation was formed to research the latest medical papers and policies in other countries, where the public are being protected and disseminate that information to the relevant officials, public, media and schools.

Help us make a difference and ensure that safer biologically based levels and regulations are introduced by the South African government.

We need your support!

View our website for tips on protecting your family on www.emrrfsa.org

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