

Radio-frequency Radiation Facts

Interview with Katharina Gustavs in April 2014, Certified in Environmental and Occupational Health with Rainbow Consulting, info@buildingbiology.ca. For additional information see <http://buildingbiology.ca/wd/>.

When radio-frequency (RF) electromagnetic fields were classified as possibly carcinogenic in May 2011 by the World Health Organization, Health Canada issued a health alert, encouraging “parents to reduce their children’s RF exposure from cell phones.” In the same year, Health Canada claimed and continues to claim that the RF exposure from Wi-Fi devices is “very low” and that therefore “no precautionary measures are needed” — regardless of the fact that a given cell phone or Wi-Fi antenna in tablets/iPads emit roughly the same amount of RF energy.

Charles – please make this whole article into pdf including below facts.

Back in 2003, the chief medical officer of Russia had already issued a federal safety guideline regarding cell tower siting and cell phone use, recommending that children **under the age of 18** should not use a cell phone.

Original safety guideline in Russian: <http://www.vrednost.ru/2182241190-03.php>

Since 2000, the chief medical officers in the UK advise that children **under the age of 16** should be encouraged “to use mobile phones for essential purposes only.”

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4123981.pdf

In 2009, EMF researchers at the Vienna Medical University once again confirmed the existence of nonthermal effects of cell phone radiation. Sensitive cells responded with a significant increase in protein synthesis, indicating an increased level of cell stress. Since affected cells included especially those that are metabolically active, **children and youth seem to be most susceptible to the possible health effects**. As a direct result, the Austrian Ministry of Health issued a flyer on how to avoid unnecessary wireless radiation exposure during cell phone use, especially with regard to children.

English summary of AUVA report: http://www.diagnose-funk.org/assets/2009-7-20_df_bp_auva-report_english.pdf

Austrian Ministry of Health Flyer (German): http://www.diagnose-funk.org/assets/ministerium_oesterreich_handyfolder160709.pdf

Katharina Gustavs is presently working together with the Competence Initiative, a group of scientists based in Germany, whose Physicians’ Working Group issued an appeal in 2012:

<http://freiburger-appell-2012.info/en/home.php?lang=EN>

Katharina Gustavs presentations to the Victoria School Board regarding Wi-Fi:

<http://buildingbiology.ca/wd/electromagnetic-spectrum/wi-fi/>

The Salzburg Public Health Department in cooperation with the German Association of Building Biology Professionals issues a Building Biology Indoor Environment Checklist that details low-EMF alternatives:

http://www.baubiologie.net/uploads/media/VDB_Building_Biology_Indoor_Environment_Checklist_english_01.pdf

Ukraine has the lowest official RF exposure limits I am aware of: 24,000 $\mu\text{W}/\text{m}^2$ in contrast to the 2 to 10 million $\mu\text{W}/\text{m}^2$ in Canada.

http://buildingbiology.ca/media/pdf/rf_exposure_limits_cell_antennas.pdf

Ukrainian scientists around Igor Yakmenko at the Institute of Experimental Pathology, Oncology and Radiobiology in Kiev just published a review paper regarding low-level RF radiation exposure and oxidative stress (2014):

“To clarify the picture, we analyzed peer-reviewed publications on oxidative effects of RFR and found altogether 80 currently available papers, of which a remarkable part, 76 papers (92.5%), reported the detection of significant oxidative stress.”

<http://www.scopemed.org/fulltextpdf.php?mno=154583>

The BC Centre for Disease Control acknowledged **oxidative stress** as a plausible effect mechanism for adverse **nonthermal effects** on male reproductive health in its RF Tool Kit, which was released last year. (See section 1 page 4.)

http://www.bccdc.ca/NR/rdonlyres/9AE4404B-67FF-411E-81B1-4DB75846BF2F/0/RadiofrequencyToolkit_v4_06132013.pdf

“Oxidative stress or decreased antioxidants are suggested as plausible mechanisms for these nonthermal effects from RF exposure. Better exposure assessment is needed in future studies, such as determining the effect of usually carrying an active mobile phone in the front pants pocket.”

As of March 2014, Belgium has new regulations regarding the sale of cell phones. The sale and advertising of cell phones specifically manufactured for children **under the age of 7** are prohibited. In addition, SAR values for each cell phone have to be listed anywhere where cell phones are sold.

http://health.belgium.be/eportal/19089508_EN#.U1lkDVeurQR