

Sleep EMF and Children's Health: Protecting the Brains of the Future

Cell Phones, Wireless and Children's Health PAS Session 4580

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What resources can I share with patients so they can educate themselves about this issue?

The BabySafe Project babysafeproject.org

Environmental Health Trust ehtrust.org

Grassroots Environmental Education grassrootsinfo.org

American Academy of Pediatrics Letter to the FCC on Radiofrequency Fields 8/29/2013

<http://bit.ly/17tQclg>

AAP Letter to Rep. Kucinich Support of H.R. 6358, Cell Phone Right to Know 12/2012 <http://goo.gl/ErffB8>

[Textbook of Children's Environmental Health, 2013](#) Edited by Philip J. Landrigan and Ruth A. Etzel, Chapter 41. *Electromagnetic Fields* by Kurt Straiff, Robert Baan, and Neela Guha

What materials detail simple steps that patients can take at home to reduce exposures?

Dr. Moskowitz Director of the Center for Family and Community Health Tips <https://goo.gl/hmQkun>

Vienna Medical Association Cell Phone Tips [Full Poster](#) [Printable PDF](#) <https://goo.gl/SQ9idz>

Doctors Advice on Cell Phones Brochure <http://goo.gl/8palei>

Doctor's Advice on Wireless <http://goo.gl/ptSM4D>

BabySafe Booklet <http://goo.gl/l0Zeeb> ([Poster](#))

What resources exist for best practice in a school setting?

Several organizations have developed best practices for schools. Several teacher unions and governments have as well. Please see the below information.

Collaborative For High Performance Schools Low-EMF Best Practices Criteria <http://goo.gl/rQWgc4>

The Child Safe School Site thechildsafeschool.org

EHT Wi-Fi in School Webpage ehtrust.org/key-issues/cell-phoneswireless/wifi-in-schools

An example of [Best Practices in a private school: Upper Sturt Wireless Policy](#) <https://goo.gl/U0h5M8>

Guidelines for Safer Use of Technology for Schools for the New York State Teachers Union

<http://goo.gl/g5lew7>

The United Federation of Teachers has a Webpage on Wireless Radiation

<http://www.uft.org/our-rights/wireless-radiation>

Canadian Teacher Federations brief "The Use of Wi-Fi in Schools" <http://goo.gl/SG6zWy>

Read policy efforts by governments such as France, Israel, Belgium and Spain. <http://goo.gl/bN0nn3>

Where can I learn more about the science?

Environmental Health Trust ehtrust.org

Dr. Moskowitz Director of the Center for Family and Community Health at the University of California Berkeley School of Public Health Electromagnetic Radiation Safety saferemr.com

Microwave News microwavenews.com

TRANSCEND Research Program (Martha Herbert) transcend.mgh.harvard.edu/

EMF Portal An extensive literature database from Aachen University <http://www.emf-portal.de/>

Collaborative on Health and the Environment/Electromagnetic Fields

healthandenvironment.org/initiatives/emf

Scientific Citations on Sleep and RF exposure

Bengt et al., (2007) [The Effects of 884 MHz GSM Wireless Communication Signals on Self-reported Symptom and Sleep \(EEG\)- An Experimental Provocation Study](#) PIRS Online Vol. 3 No. 7 pp: 1148-1150

Cao H et al., (2015) [Circadian rhythmicity of antioxidant markers in rats exposed to 1.8 ghz radiofrequency fields](#). International Journal of Environmental Research and Public Health. Feb 12;12(2):2071-87.

[Danker-Hopfe et al.,\(2016\) Effects of mobile phone exposure \(GSM 900 and WCDMA/UMTS\) on polysomnography based sleep quality: An intra- and inter-individual perspective](#), [Environ Res.](#) 2016 Feb;145:50-60. doi: 10.1016/j.envres.2015.11.011.

[Eyvazlou et al., \(2015\) Association between overuse of mobile phones on quality of sleep and general health among occupational health and safety students](#). [Chronobiol Int.](#) 2016;33(3):293-300.

Loughran SP, Wood A, Barton JM, Croft RJ, Thompson B, Stough C (2005). [The effect of electromagnetic fields emitted by mobile phones on human sleep](#). [Neuroreport](#), 16, 1973- 6.

Lowden A, Åkerstedt T, Ingre M, Wiholm C, Hillert L, Kuster N, Nilsson JP, Arnetz B (2011). [Sleep after mobile phone exposure in subjects with mobile phone-related symptoms](#). [Bioelectromagnetics](#), 32, 4-14.

Lustenberger C et al., (2013) [Stimulation of the brain with radiofrequency electromagnetic field pulses affects sleep-dependent performance improvement](#). [Brain Stimul.](#) Sep;6(5):805-11.

Mann and J. Röschke, (1996) [Effects of Pulsed High-Frequency Electromagnetic Fields on Human Sleep](#), [Neuropsychobiology](#) 33:41-47,

Mohammed HS, Fahmy HM, Radwah NM, Elsayed AA (2013). [Non-thermal continuous and modulated electromagnetic radiation fields effects on sleep EEG of rats](#). [J Adv Res](#), 4(2), 181-7.

Regel Set al. (2007) [Pulsed radio-frequency electromagnetic fields: dose-dependent effects on sleep, the sleep EEG and cognitive performance](#). [J Sleep Res.](#) Sep;16(3):253-8.

Schmid et al., (2012) [Sleep EEG alterations: effects of different pulse-modulated radio frequency electromagnetic fields](#). [Sleep Res.](#) Feb;21(1):50-8.

Schmid M, Murbach M, Lustenberger C, Maire M, Kuster N, Achermann P, Loughran S (2012b). [Sleep EEG alterations: effects of pulsed magnetic fields versus pulse-modulated radio-frequency electromagnetic fields](#). [J Sleep Res](#), 21(6), 620-9.

Stalin et al., (2016) [Mobile Phone Usage and its Health Effects Among Adults in a Semi-Urban Area of Southern India](#), [Journal of Clinical and Diagnostic Research.](#) Jan, Vol-10(1): LC14-LC16

Thomee S, Härenstam A, Hagberg M (2011). [Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults – a prospective cohort study](#). [BMC Public Health](#), 11, 66.