

# MEDICAL RECOMMENDATIONS ON CELL PHONES AND WIRELESS

## Compilation of US & Recent International Guidance

### International EMF Scientist Appeal

In 2015, the [International EMF Scientist Appeal](#), now signed by over 225 scientists from 41 nations, including the USA, was submitted to the United Nations, World Health Organization and U.N. Member Nations urging the development of more protective guidelines for EMF encouraging precautionary measures, and calling for education of the public about health risks, particularly risks to children and fetal development.

### The American Academy of Pediatrics Recommendations To Families About Cell Phones

AAP Healthy Child.org Webpages: [Cell Phones](#), [Cell Towers](#), [Press Release](#)

[AAP Letter in Support of the Cell Phone Right to Know Federal Legislation](#)

[AAP Policy: Media Use by Children Under 2 Years](#)

[AAP Policy: Children, Adolescents & the Media](#)

- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe level.
- When talking on the cell phone, try holding it an inch or more away from your head.
- Use text messaging when possible, and use cell phones in speaker mode or with the use of hands-free kits.
- Make only short or essential calls on cell phones.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.

### California Department of Health Guidelines on How to Reduce Exposure to Radiofrequency Energy from Cell Phones

[Press Release](#), [PDF of Cell Phone Guidance 12/2017](#)

"Laboratory experiments and human health studies have suggested the possibility that long-term, high use of cell phones may be linked to certain types of cancer and other health effects, including: brain cancer and tumors of the acoustic nerve and salivary glands, lowered sperm quality and inactive or less mobile sperm, headaches and effects on learning and memory, hearing, behavior and sleep."

"What about children? Children may be more at risk for harm from exposure to RF energy because: RF energy can reach a larger area of a child's brain than an adults brain. A child's brain and body grow and develop through the teen years. During this time, the body may be more easily affected by RF energy and the effect maybe more harmful and long lasting."

### Cyprus Medical Association, Vienna Austrian Medical Chamber & Cyprus National Committee on Environment and Children's Health signed the Nicosia Declaration in 2017 with 16 practical recommendations which include:

- Children and teenagers under the 16 should carry mobile phones for emergencies only.
- Internet access via a hardwired connection such as a LAN does not emit radiation. It is fast and secure. Constantly radiating DECT cordless phones, Wi-Fi access points, data sticks, and LTE modems should be avoided!

### INTERNATIONAL

[Cyprus Medical Association](#)

[Athens Medical Association](#)

[Vienna Medical Association](#)

[Child and Youth Service Geneva Switzerland](#)

[Bioinitiative Working Group 2012](#)

[EMF Scientist Appeal](#)

### WATCH

[CNN Sanjay Gupta](#)

[PBS Investigates Cell Phone Safety: Part 1](#)

[PBS Investigates Cell Phone Safety: Part 2](#)

[CBC Report](#)

[ABC Catalyst Documentary](#)

[The Today Show](#)

[Canada AM](#)

### READ

[Consumer Reports](#)

[American Academy of Pediatrics](#)

[Maryland State Children's Environmental Protection Council](#)

[Connecticut Department of Health](#)

[The California Medical Association](#)

[Santa Clara Medical Bulletin Article](#)

[Dr. Martha Herbert](#)

[Dr. Lennart Hardell](#)

[Dr. Martin Pall](#)

[Doctors Letters on Wi-Fi](#)

[Medical Recommendations](#)

### FACTSHEETS & PRINTABLES

[Doctor's Advice on Cell Phone Radiation:](#)

[English, Spanish, Greek, Finnish, Turkish, Italian](#)

[EHT FactSheets:](#)

[What Parents Need to Know About Wireless Radiation](#)

[American Academy of Pediatrics Recommendation](#)

[Protect The Ones You Love Card: English, Spanish](#)

[C4ST Factsheets:](#)

[Wireless Safety Tips](#)

[Presentation Reducing Exposure 101](#)

[Easy steps you can take to minimize your exposure](#)

[BabySafe Project for Pregnant Women: "Reduce Your Wireless Exposure" English Brochure, Spanish Brochure](#)

[New Jersey Education Association:](#)

["Minimize health risks from electronic devices"](#)

[Article, PDF of Recommendations](#)

# SCIENTIFIC IMAGING OF WI-FI AND CELL PHONE

## Children Are More Vulnerable

### VIRTUAL REALITY: SCIENTIFIC IMAGING OF CELL PHONES IN VR POSITION SHOWS RADIATION INTENSITY INTO THE BRAIN OF CHILDREN

Published research on cellphones close to the eye and brain of a child in VR positions finds higher microwave radiation exposures to the eyes. This imaging also shows radiation dose into the brain. These simulations employed an anatomically based model of a six year old and generated estimates of how the young brain absorbs cell phone radiation.

**Powerpoint Presentation: Smartphone in Virtual Reality**  
**Research on cell phones in VR Position**

### RESEARCH CONFIRMS THAT CELL PHONE RADIATION IS ABSORBED DEEPER INTO CHILDREN'S BRAINS.

Because children's skulls and bones are thinner and their brains and bodies contain more fluid, they will naturally absorb more cell phone microwave radiation. These simulations were run through a sophisticated computer system that the U.S. Food and Drug Administration (FDA) currently applies to evaluate medical devices. Multiple research studies confirm the higher absorption of microwave radiation into deeper structures in the young brain than into older individuals. **In these images the lighter colors represent a higher SAR and the darker colors are a lower SAR. SAR is a measure of cell phone radiation intensity and absorption into the body called Specific Absorption Rate.**

### WIRELESS TABLETS EXPOSE BRAINS TO MICROWAVE RADIATION.

Wireless tablets have several transmitting antennas that emit regular pulses of radiation unless the Wi-Fi is turned off. Although the tablet is not touching a child's head, the radiation penetrates into a child's brain.

### CELL PHONES AND OTHER WIRELESS DEVICES EMIT MICROWAVE RADIATION THAT DAMAGES SPERM AND THE TISSUE OF THE TESTES.

Evidence from experimental research, epidemiological studies and in vitro (cells) laboratory, and in vivo (animal) studies shows that the radio frequency radiation exposure from wireless devices is associated with reduced sperm count, reduced sperm motility and concentration, damaged sperm DNA, altered sperm cell structure, and increased erectile dysfunction.

#### Scientific Imaging Videos

**Published Research on Wi-Fi Radiation**  
**Published Research on Brain Development**  
**Published Research on Cell Phone Radiation**

#### RESEARCH STUDIES

Clegg et al., "Building Science and Radiofrequency Radiation: What makes smart and healthy buildings." Building and Environment, 2019

Miller et al., "Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102)." Environmental Research, Volume 167, 2018

Fernández et al., "Absorption of wireless radiation in the child versus adult brain and eye from cell phone conversation or virtual reality." Environmental Research, 2018

Gandhi OP, Morgan LL, De Salles AA, Han YY, Herberman RB, Davis DL. (2012). "Exposure limits: the underestimation of absorbed cell phone radiation, especially in children." Electromagn Biol Med. 31(1), 3451.

Carlberg, Michael and Lennart Hardell. "Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation." BioMed Research International, vol. 2017, 2017.

Lerchl, Alexander, et al. "Tumor promotion by exposure to radiofrequency electromagnetic fields below exposure limits for humans." Biochemical and Biophysical Research Communications, vol. 459, no. 4, 2015, pp. 585-90.

Avendaño, C., et al. "Use of laptop computers connected to internet through Wi-Fi decreases human sperm motility and increases sperm DNA fragmentation." Fertility and Sterility, vol. 97, no. 1, 2012, pp. 39-45.

Aldad, Tamar S., et al. "Fetal radiofrequency radiation exposure from 800-1900 Mhz-rated cellular telephones affects neurodevelopment and behavior in mice." Scientific Reports, vol. 2, no. 312, 2012.

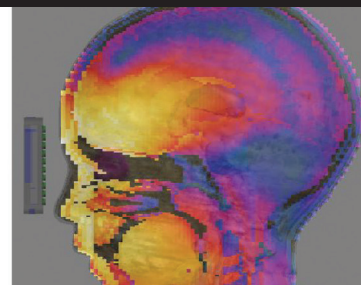
Bas, O., et al. "Chronic prenatal exposure to the 900 megahertz electromagnetic field induces pyramidal cell loss in the hippocampus of newborn rats." Toxicology and Industrial Health, vol. 25, no. 6, 2009, pp. 377-84.

Kim, Ju Hwan, et al. "Long-term exposure to 835 MHz RF-EMF induces hyperactivity, autophagy and demyelination in the cortical neurons of mice." Scientific Reports, vol. 7, 2017.

West JG, Kapoor NS, Liao S, Chen JW, Bailey L, Nagourney RA. (2013). "Multifocal Breast Cancer in Young Women with Prolonged Contact between Their Breasts and Their Cellular Phones." Case Reports in Medicine. Volume 2013, Article ID 354682.

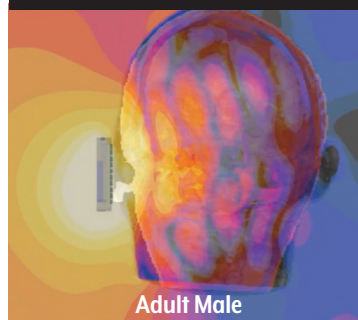
Atasoy, Halil I., et al. "Immunohistopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional Wi-Fi devices." Journal of Pediatric Urology, vol. 9, no. 2, 2013, pp. 223-9.

### Radiofrequency Exposure at Eye Plane of 6-Year-Old Child. Smartphone Placed in Cardboard Simulation Position



© University of Porto Alegre

### Cell Phone Radiation Into The Brain



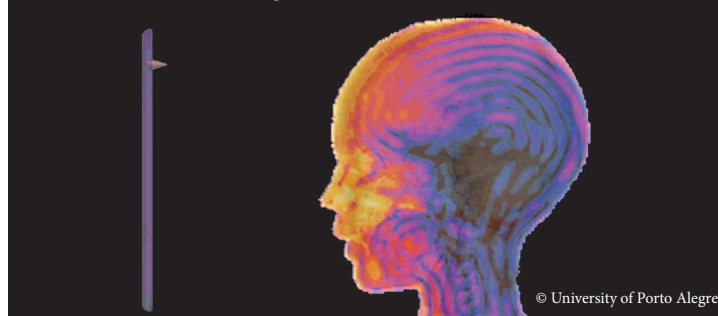
Adult Male



6 Year Old Child

© Fernandez 2017

### Wi-Fi Tablet Penetrating Into The Brain Of A 6-Year-Old Child



© University of Porto Alegre



Cell Phone Radiation Penetrating Into Male Reproductive Organs

© Fernandez 2017