

CANCER

- 1.F. Barnes and B. Greenenbaum, "[Some Effects of Weak Magnetic Fields on Biological Systems: RF fields can change radical concentrations and cancer cell growth rates.](#)" in *IEEE Power Electronics Magazine*, vol. 3, no. 1, pp. 60-68, March 2016.
- 2.Coureau et al., (2014). [Mobile phone use and brain tumours in the CERENAT case-control study.](#) *Occup Environ Med.* 71(7), 514-22.
- 3.Lerchl et al., (2015) [Tumor promotion by exposure to radiofrequency electromagnetic fields below exposure limits for humans.](#) Biochemical and Biophysical Research Communications, Available online 6 March 2015.
- 4.Morgan LL, Miller AB, Sasco A, Davis DL, [Mobile phone radiation causes brain tumors and should be classified as a probable human carcinogen \(2A\) \(review\).](#) *Int J Oncol.* 2015 May;46(5):1865-71. Epub 2015 Feb 25.
- 5.Carlberg M, Hardell L. [Decreased Survival of Glioma Patients with Astrocytoma Grade IV \(Glioblastoma Multiforme\) Associated with Long-Term Use of Mobile and Cordless Phones.](#) *International Journal of Environmental Research and Public Health.* 2014;
- 6.L. Hardell, M. Carlberg, [Cell and cordless phone risk for glioma - Analysis of pooled case-control studies in Sweden, 1997-2003 and 2007-2009.](#) *Pathophysiology* (2015), Available online 29 October 2014.
7. Lerchl et al., [Tumor promotion by exposure to radiofrequency electromagnetic fields below exposure limits for humans.](#) Biochemical and Biophysical Research Communications, Available online 6 March 2015.
8. Soffritti et al., [Life-span exposure to sinusoidal-50 Hz magnetic field and acute low-dose \$\gamma\$ radiation induce carcinogenic effects in Sprague-Dawley rats.](#) *International Journal of Radiation Biology.* Vol. 92, Iss. 4, 2016
9. Yakymenko et al.,(2015) [Oxidative mechanisms of biological activity of low-intensity radiofrequency radiation.](#) *Electromagnetic Biology and Medicine.* July 7,

REPRODUCTION

- 1.Adams J, Galloway T , Mondal D, Esteves S, Mathews F. (2014). [Effect of mobile telephones on sperm quality: A systematic review and meta-analysis.](#) *Environment International.* 80, 106-112.
- 2.Atasoy HI, Gunal MY, Atasoy P, Elgun S, Bugdayci G. (2013). [Immunohistopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional Wi-Fi devices.](#) *Journal of Pediatric Urology.* 9(2), 223-9.
- 3.Avenidaño C, Mata A, Sanchez Sarmiento CA, Doncel GF.(2012). [Use of laptop computers connected to internet through Wi-Fi decreases human sperm motility and increases sperm DNA fragmentation.](#) *Fertility Sterility.* 97(1), 39-45.
- 3.Yüksel M, Nazıroğlu M, Özkaya MO. [Long-term exposure to electromagnetic radiation from mobile phones and Wi-Fi devices decreases plasma prolactin, progesterone, and estrogen levels but increases uterine oxidative stress in pregnant rats and their offspring.](#) *Endocrine.* 2015 Nov 14. [Epub ahead of print]
4. Odacı E, Hancı H, Yuluğ E, Türedi S, Aliyazıcıoğlu Y, Kaya H, Çolakoğlu S.[Effects of prenatal exposure to a 900 MHz electromagnetic field on 60-day-old rat testis and epididymal sperm quality.](#) *Biotech Histochem.* 2015 Oct 15:1-11.
5. Ziberlicht A, Wiener-Megnazi Z, Sheinfeld Y, et al. [Habits of cell phone usage and sperm quality – does it warrant attention?](#) *Reproductive BioMedicine.* Published online September 2015
- [Gul A, Celebi H, Uğraş S.\(2009\). The effects of microwave emitted by cellular phones on ovarian follicles in rats.](#) *Arch Gynecol Obstet.* 280(5), 729-33.

6. Bakacak M, Bostancı MS, Attar R, Yıldırım ÖK, Yıldırım G, Bakacak Z, Sayar H, Han A. [The effects of electromagnetic fields on the number of ovarian primordial follicles: An experimental study.](#) Kaohsiung J Med Sci. 2015 Jun;31(6):287-92. doi: 10.1016/j.kjms.2015.03.004. Epub 2015 Apr 30.

RADIO FREQUENCY ABSORPTION

1. Morris, R.D.; Morgan, L.L.; Davis, D.L., “[Children Absorb Higher Doses of Radio Frequency Electromagnetic Radiation From Mobile Phones Than Adults.](#)” in Access, IEEE , vol.3, no., pp.2379-2387, 2015 doi: 10.1109/ACCESS.2015.2478701

2. Fernandez-Rodriguez, C.E.; De Salles, A.A.A.; Davis, D.L., “[Dosimetric Simulations of Brain Absorption of Mobile Phone Radiation–The Relationship Between psSAR and Age.](#)” in Access, IEEE , vol.3, no., pp.2425-2430, 2015 doi: 10.1109/ACCESS.2015.2502900

3. 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.

4. Juliana Borges Ferreira and Álvaro Augusto Almeida, [Specific Absorption Rate \(SAR\) in the head of Tablet user's](#) Proceedings of the 7th Latin American Workshop On Communications - 2015

5. Redmayne M, Johansson O. [Radiofrequency exposure in young and old: different sensitivities in light of age-relevant natural differences.](#) Rev Environ Health. 2015 Dec 1;30(4):323-35. doi: 10.1515/reveh-2015-0030.

6. Gandhi, Om. [Yes the Children are more exposed to radio-frequency energy from mobile telephones than adults.](#) IEEE Spectrum. PP(99):1. Jun 23, 2015.

7. Panagopoulos, D. J., Johansson, O., & Carlo, G. L. (2015). [Real versus Simulated Mobile Phone Exposures in Experimental Studies.](#) *BioMed Research International*, 2015, 607053. <http://doi.org/10.1155/2015/607053>

STRUCTURAL

1. Zhang (2015), [Exposure to 900 MHz electromagnetic fields activates the mcp-1/ERK pathway and causes blood-brain barrier damage and cognitive impairment in rats.](#) *Brain Res.* 2015 Mar 19;1601:92-101. doi: 10.1016/j.brainres.2015.01.019. Epub 2015 Jan 15.

2. Dasdag et al., [Effects Of 2.4 Ghz Radiofrequency Radiation Emitted From Wi-Fi Equipment On microRna Expression In Brain Tissue.](#) *Int J Radiat Biol.* 2015 Mar 16:1-26.

3. Bas et al., (2009). [900 MHz electromagnetic field exposure affects qualitative and quantitative features of hippocampal pyramidal cells in adult rat.](#) *Brain Research.* 1265, 178–185.

4. Jing J, Yuhua Z, Xiao-qian Y, Rongping J, Dong-mei G, Xi C. (2012). [The influence of microwave radiation from cellular phone on fetal rat brain.](#) *Electromagn Biol Med* 31(1), 57-66.

5. Naziroğlu M. and Gumral. (2009). [Modulator effects of L-carnitine and selenium on wireless devices \(2.45 GHz\)-induced oxidative stress and electroencephalography records in brain of rat.](#) *Int J Radiat Biol.* 85(8), 680-689..

6. Nittby H, Brun A, Eberhardt J, Malmgren L, Persson BR, Salford LG. (2010). [Effects of microwave radiation upon the mammalian blood-brain barrier.](#) *European Journal of Oncology.* 5, 333-355.

7. Sirav B, Seyhan N. (2011). [Effects of radiofrequency radiation exposure on blood-brain barrier permeability in male and female rats.](#) *Electromagnetic Biology and Medicine.* 30(4), 253-60.

8. Narayanan SN, Kumar RS, Karun KM, Nayak SB, Bhat PG., (2015) [Possible cause for altered spatial cognition of prepubescent rats exposed to chronic radiofrequency electromagnetic radiation.](#) *Metab Brain Dis.* 2015 Oct;30(5):1193-206.

9. Margaritis L.H. et al., 2014. [Drosophila oogenesis as a bio-marker responding to EMF sources.](#) *Electromagn Biol Med.* 33(3): 165-189. <http://www.ncbi.nlm.nih.gov/pubmed/23915130>

10. Papageorgiou C.C. et al, (2011) [Effects of Wi-Fi signals on the p300 component of event-related potentials during an auditory listening task](#) *Journal of Integrative Neuroscience* 10(2):189–202

11.Leszczynski et al., (2002) [Non-thermal activation of the hsp27/p38MAPK stress pathway by mobile phone radiation in human endothelial cells: molecular mechanism for cancer- and blood-brain barrier-related effects.](#) Differentiation.May;70(2-3):120-9

How to Protect Your Family

- Choose wired over wireless.**
 - Get a corded landline phone and forward cell phone calls to it.
 - Use corded plug-in (not wireless) connections for printers, monitors, Internet, gaming, and movies, etc.—with all wireless routers OFF.
- Safe guard sleep.**
 - Stop use of and power off computers, tablets and phones one hour (or longer) before bedtime.
 - Do not sleep with a cell phone, tablet or laptop.
- Maximize distance from self and others.**
 - Radiation decreases as you move away from the source.
 - Leave devices away from legs, breast pockets, or the abdomen; can damage sperm and may be linked to breast cancer.
 - Use an air tube headset for long periods; place at maximum distance from head and body.
- Protect children.**
 - Children are particularly vulnerable and should not use cell phones except in an emergency.
 - If children are using a phone or other device for work or play, select all 9 of the following settings to turn off the radiation from cell phones and wireless devices: Airplane mode; OFF; and Wi-Fi; OFF; and Bluetooth; OFF.
 - Do not use a mobile device while a child is on your phone's your car.
- Power off in vehicles.**
 - Mobile device status screens, and many vehicle radiation during travel, and metal structures create radiation hot-spots.

more at www.EHTrust.org

Doctors' Advice to Patients & Families

Wireless & Health: Simple Precautions Make Sense



This pamphlet reviews precautionary advice by Doctors and governments to reduce exposure to wireless radiation.



Brought to you by: www.EHTrust.org

Wireless Radiation Exposures

Wireless devices—such as phones, laptops, game consoles, baby monitors, and Wi-Fi routers—all emit the same type of wireless microwave radiation as cell phones. Children, pregnant women, and men helping to father healthy children are more susceptible to this exposure.

The Child Brain and Skull Absorb up to Ten Times More Invisible Wireless Radiation than the Adult



Cell phone radiation absorbed into brain, skull, and eyes of 10-year old. (Perkins et al., 2011)

New uniformly based research at Iowa radiation absorption.

Increased Cancer Risk

Wireless mobile telephone radiation was classified as a Class 2B "Possible Human Carcinogen" by the World Health Organization's International Agency for Research on Cancer in 2011. Evidence has also increased since then, indicating that cell phone use causes radiation should be classified as a "probable carcinogen" because of increased brain cancer (Wahl et al., 2013).

Recent research at Virginia Tech shows up to eight times more brain cancer risk.



Wireless Exposure Damages Brains

Research shows that wireless exposure causes brain damage and cognitive impairment. (Wahl et al., 2013)

How Wireless Impacts Children's Health

Accumulating research shows that wireless microwave radiation affects early brain development, the immune system and reproductive function. Even very low doses of wireless radiation affect brain metabolism and mitochondrial activity.

Yale University researchers found that when pregnant mice were exposed to wireless radiation, their offspring had increased anxiety, increased hyperactivity and altered learning. Female offspring exhibited more anxiety symptoms than development in various ages.

The Reproductive System

Wireless radiation affects the reproductive system, causing sperm damage and early pregnancy losses (Wahl et al., 2013).

Testes Damaged by Wi-Fi Equipment Radiation



Long-term Wi-Fi exposure decreases testis volume. (Wahl et al., 2013)

Government Protections Worldwide

[Click here to download the Doctors Advice on Wireless](#)

How to Protect Your Family

- Do not hold the phone directly against your head or body. Use speakerphone, other hands-free device, or another device that meets FCC guidelines.
- Use a headset or a wired cord. Your phone emits radiation and sends information into you when the signal is weak or blocked.
- Protect children, the pregnant women, and men who want to become fathers. Children absorb twice as much radiation as adults. Sperm are especially vulnerable.
- Do not sleep with your cell phone. Phones do not emit radiation when off or in airplane mode.
- Cordless landlines are wireless, safer, and more secure. Cordless phones also emit microwave radiation.
- Do not text while moving (e.g., driving, hiking, boating, working, eating). Microsoft can cause the difference between life and death.

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Doctors' Advice to Patients & Their Families

Cell Phones & Health: Simple Precautions Make Sense



This pamphlet reviews precautionary advice by governments to reduce your exposure to cell phone radiation.



Cell phones are lowering microwave radio that were never properly tested for safety.

Antennas for cell phones are constantly searching for signals from towers to send and receive information. The body or brain absorbs about half the radiation emitted from a phone at any time.

Children absorb more radiation than adults

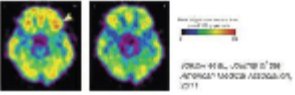


Source: Dr. T. Garcia and Gene Aronow

World Health Organization (2011)

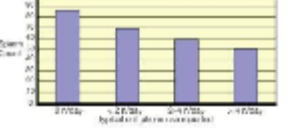
Can Cell Phones Cause Cancer and Disease?

A number of well-designed studies indicate that cell phone use increases cancer risk. Cell phone usage has risen after 15 minutes of using a cell phone or on hold to the rest, the brain of a healthy adult shows significant changes in glucose metabolism—the brain fuel—of precisely those areas exposed by cell phone radiation. The long-term effects of these changes are unknown. Recent research suggests that cell phone, cordless phone, and other wireless devices can also damage brain cells.



Cell Phones Lower Sperm Count

Men who use cell phones 2 to 4 hours per day have 30% lower sperm count than men who use them less than 1 hour a day. In 40% lower sperm count. Studies have shown that microwave radiation can damage sperm.



Health Canada (2011)

[Click here to download the Doctors Advice for Cell Phones](#)

