

# What You Need to Know About Wireless Radiation and Your Baby

By Patti Wood

**T**he beautiful and awe-inspiring process by which a few cells develop into a new life is truly miraculous. Through intricate and complex steps, the creation of a new life unfolds, forming delicate organs and vital systems, making billions of important connections in the brain alone.

Scientists and medical professionals around the world are working hard to understand how a developing human life is affected by environmental exposures in the food we eat, the air we breathe, the water we drink, and the surroundings in which we live and work.

One focus of current research is wireless radiation, also referred to as microwave radiation or radio frequency radiation (RFR), emitted by the myriad wireless devices we encounter every day. It was once thought to be relatively harmless. Decades ago, when exposure thresholds were established, the thermal or heating effects on human tissue were the main concern.

However, we now know wireless radiation can cause non-thermal biological effects as well, including damage to cells and DNA, even at low levels. The International Agency for Research on Cancer (IARC) of the World Health Organization (WHO) has classified wireless radiation as possibly carcinogenic to humans, and numerous animal studies have shown neurological effects, including behavioural disorders, that may lead to long-term health consequences.

Radio frequency waves have been used for more than a hundred years to carry signals from transmitting towers to distant receivers. However, the technology offered today puts powerful transmitters as well as receivers much closer to users of all ages than ever before. This two-way communication, and the increased radiation needed to support it, is the reason for concern.

Consumer demand for connectivity everywhere, however, has resulted in hundreds of thousands of rooftop, pole-mounted, and tower transmitters (antennas) being installed in close proximity to private homes, apartments, schools, office buildings, and retail and recreation areas. Free WiFi is commonly advertised to attract customers at bars, restaurants, hotels, and coffee shops. These wireless routers in public spaces are powerful because they are designed to connect with many devices simultaneously.

## About the Science

A recent study (Aldad, et al, 2012) conducted at Yale University found that pregnant laboratory mice exposed to ordinary cellphone radiation produced offspring that were more hyperactive and had poorer memories compared to a control group that was not exposed.

Dr. Hugh Taylor, chair of the Department of Obstetrics, Gynecology, and Reproductive Sciences at Yale University School of Medicine, and his team of researchers followed a steady progression of scientific studies that demonstrated health and behavioural effects from wireless radiation. They concluded that cellphone radiation had damaged neurons in the prefrontal cortex of the brain.

A review of the scientific literature on radiofrequency/microwave radiation con-



The BabySafe Project  
www.BabySafeProject.org

ducted by the US Air Force Materiel Command (Bolen, 1994) concluded, "behaviour may be the most sensitive biological component to RF/microwave radiation." Scientists at the University of Washington demonstrated DNA breaks in brain cells of rats resulting from exposure to microwave radiation (Lai, et al, 1995).

Over the next decade, numerous studies were conducted regarding the safety of RF radiation with varying results. Of particular importance was the work of researchers at the University of Kentucky who showed how exposure to wireless radiation could damage or even destroy brain cells (Zhao, et al, 2007). Researchers in Samsun, Turkey published findings that rats prenatally exposed to cellphone radiation developed impaired learning and experienced damage to those parts of the brain involved in memory and learning (Inkinci, et al, 2013). In yet another study, rats prenatally exposed to wireless radiation had damaged spinal cords (Odaci, et al, 2013).

Regarding human impacts of wireless radiation, UCLA researchers (Divan, et al, 2008) studied 13,000 mothers and children and found that prenatal exposure to cellphones was associated with a higher risk for behavioural problems and hyperactivity in children.

Every stage of your baby's development will be affected by the choices you make and the environments in which you live. Despite the ubiquity of the ever-growing wireless world, you can still make some personal choices to reduce your exposure. This includes keeping a safe distance from transmitters or antennas, keeping your personal wireless devices away from your body, and reducing the amount of time you spend using wireless devices. Remember: exposure adds up over time.

While we wait for the scientific process to provide us with a deeper understanding of this issue and for government agencies to adopt more protective exposure thresholds, a precautionary approach, especially during pregnancy, seems warranted.

Manufacturers of wireless devices warn consumers to keep their phones, tablets, baby monitors, and other devices away from their bodies. Unfortunately, such warnings are often buried in the fine print of product manuals, which few consumers ever read.

Please visit [BabySafeProject.org](http://BabySafeProject.org) for other scientific studies on wireless radiation and its biological effects, a current list of medical doctors, researchers, and health advocates who have signed the Joint Statement on Pregnancy and Wireless Radiation, a list of government agencies, professional



"Most pregnant women understand that they should stay away from cigarette smoke, avoid alcohol, and be careful about eating potentially contaminated foods of any kind. The weight of evidence clearly supports the need to protect pregnant women from wireless radiation exposures, as well." Dr. Devra Davis, University of California at Berkeley  
Photo: [www.maxpixel.freegreatpicture.com](http://www.maxpixel.freegreatpicture.com), CC0 Public Domain

"Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standards for cellphones and other wireless devices be based on protecting the youngest and most vulnerable population to ensure they are safeguarded throughout their lifetimes." American Academy of Pediatrics 2013 Photo: [www.maxpixel.freegreatpicture.com](http://www.maxpixel.freegreatpicture.com), CC0 Public Domain



societies, and public health organizations around the world calling for further research, and tips on how to reduce exposure to fetuses and babies.

The BabySafe Project is a joint initiative of Grassroots Environmental Education and Environmental Health Trust.

Patricia (Patti) Wood is founder and executive director of Grassroots Environmental Education, a not-for-profit environmental health organization at [www.grassrootsinfo.org](http://www.grassrootsinfo.org). The organization uses science-driven arguments for clean air, clean water, and a safe food supply, and advocates for stricter regulation of non-

ionizing radiation and chemical toxins. A Visiting Scholar at Adelphi University, Ms. Wood lectures on the environment and related health issues in the College of Nursing and Public Health. Ms. Wood is the co-producer of the documentary film Our Children at Risk, which explores the latest scientific research linking environmental toxins to children's health problems. She is also the author of The ChildSafe School, a program which promotes and provides a framework for a comprehensive approach to reducing environmental toxins in schools, and Helping to Heal, a book for parents of children with cancer and other life-threatening illnesses.

## Leading Edge Wood Products Quality Above All

•Siding •Flooring •Panelling •Roof Decking  
•Beams and Timbers

### CUSTOMER SERVICES:

•Sawing •Planing •Profiling •Kiln Drying

Leading Edge Wood Products  
A Cut Above

Email:  
[info@leadingedgewoodproducts.ca](mailto:info@leadingedgewoodproducts.ca)  
[www.leadingedgewoodproducts.ca](http://www.leadingedgewoodproducts.ca)  
5622 Horsefly Lake Road, Horsefly

250-620-3629