## **Precautionary Measures**

Prefer wired routers over wireless routers.

Prefer **wired** phones over **cordless** phones, especially over 24x7 DECT cordless phones.

Make sure your **cell phone** is not a 24x7 phone and use it sparingly. Turn off your cell phone at night or put it in "airplane/flight" mode.

24x7 Wireless technologies may also exist in the following:

- \* **DECT Baby Monitors**: Prefer non-DECT monitors
- \* **Laptops**: Disable wireless functionality when not in use
- \* Wireless Keyboards/mice: Switch to wired ones
- \* Wireless Printers and Projectors: The 24x7 wireless module can often be physically removed.
- \* Wi-Fi enabled laptops, PDA's, E-book readers, and Gaming Systems: Check for options to disable wireless functionality

Stay 10+ meters away from a **microwave oven** during usage.

Turn off 24x7 wireless sources at night.

Borrow a **Cornet Basic RF meter** to check your prospective home's wireless levels. Even if you are taking precautions yourself, your efforts may be voided by your neighbors' wireless usage or a nearby cell tower, even through the wall.

Additionally, observe a **1 meter distance** from electrical appliances. Choose LCD flat panel monitors over CRT monitors. Limit use of headsets/earpieces, due to their power line magnetic fields. Borrow a **Trifield Meter** to check power line magnetic fields, e.g., from CRT monitors, or **Stetzerizer Meter** to check dirty electricity levels, e.g., from CFL bulbs.

For more information and to learn about further actions that you can take, see:

http://www.wireless-precaution.com http://www.electromagnetichealth.org (USA) http://www.emrpolicy.org (USA) http://www.magdahavas.com (Canada) http://www.radiationresearch.org/ (UK)

# Is 24x7 Wireless Exposure Safe?



## Inside this Pamphlet, find out:

- •Which new technologies are 24x7?
- •The long-term dangers of 24x7 exposure.
- •Why Smart Phones may not be a Smart Idea
- •The problem with newer cordless phones
- •What is a cell tower?
- •Why scientists, neurosurgeons, and public health officials are concerned.
- What precautions you can take.

# Did You Know?

## **A Public Health Emergency**

**Cell tower** survey studies in at least 4 different countries show increases of health symptoms within 400 meters of cell towers. Cancer clusters have been found near cell towers.

**Wi-Fi routers** expose people 24x7 to similar or higher power densities than cell towers. There are now health warnings about Wi-Fi from Austria, Germany, and the European Environment Agency.

### **Scientists Speak Out**

The **BioInitiative Report** (2007) compiles ~2000 studies related to the dangers of power lines, radio waves, and microwaves: www.next-up.org/pdf/BioInitiativeReportComplete.pdf

The authors have since been published in the **Journal of** Pathophysiology, August 2009 issue, available at www.journals.elsevierhealth.com/periodicals/patphy/issues

These writings document the effects of wireless technology and power line magnetic fields, from DNA breaks and cancer to neurological disease and immunological effects.

- ✓ DNA Strand Breaks (11 studies, e.g., Lai/singh, REFLEX, U.Vienna)
- ✓ Increased Free Radical Activity (24 studies)
- ✓ Fertility Impairment (Studies from 5 different countries)
- ✓ Stress proteins (Martin Blank)
- ✓ Altered neurotransmitter levels
- ✓ Changes to Immune System (O.Johansson)
- ✓ Blood cell clumping (Havas, Bo Semelius) and 50



## Truth Under Siege

The recent 10-year **Interphone** epidemiological study is severely flawed in a way that grossly underestimates risk. Check out the 11 Flaws listed in "Cell phone and Brain Tumors: 15 Reasons for Concern": http://www.radiationresearch.org/pdfs/reasons us.pdf

- Excluded Vulnerable Young Adults & Youth
- Defined a "regular user" as using a cell phone at least once a week for 6 months or more (This could include people with very low usage)
- Did not control for other wireless exposures

See Leonnart Hardell's studies, which do indicate risk. Furthermore, the latest generation of smart phones have yet to be tested! Don't be a statistic!

## **Unknowingly Using DECT?**

Cordless phones have almost escaped the spotlight. However, newer cordless phones appear to be more dangerous than before. DECT, for Digital Enhanced Cordless Telecommunications, is a newer standard for home cordless telephones and baby monitors.

Check for this 4 letter-label on your cordless phone or baby monitor.

Unlike older, analog models, DECT phones transmit at high powers (250mW) similar to cell phones. Unlike older models, the base transmits **non-stop**, 24x7, the moment it is plugged in.



There are warnings from Germany, Salzburg, and Sweden about the non-stop DECT cordless phones.

### <u>Highlight: What is a Cell Tower?</u>

A **cell tower**, also know as a mobile phone base station, mobile phone mast, or cellular phone transmitter, transmits and receives microwave signals to and from cell phones to enable mobile telephony.



Increased cancer and health symptoms have been observed within 300-400 meters:

#### Cancer

- •Naila, Germany: 3x new malignancies <400m after 5 years exposure (Eger, '04)
- •Netanya, Israel: 4x cancer < 350m (Wolf and Wolf, '04)

#### Electrosensitivity

- •**Spain**: Increasing health symptoms the closer you get to a cell phone transmitter (Santini, '01)
- •Also: Egypt (Abdel-Rassoul, 'o6), Cyprus (Preece, 'o5), Poland (Bortkiewicz, 'o4), Spain (Navarro, 'o3),

## What about Radio & TV Towers?

Similarly, increased cancer incidence and health symptoms also occur near Radio and TV towers:

#### Cancer

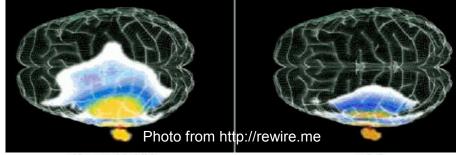
- •Rome, Italy: Radio tower, (Michelozzi, 2002).
- •Sutro Tower, San Francisco (Cherry, 2000)
- •Sutton Coldfield TV tower, Great Britain (Dolk, 1997)
- •Australia TV tower, (Bruce Hocking, 1996)

## Other Health Symptoms

- •Schwarzenberg, Switzerland: Sleep/attention;
- •Ouruhia, NZ: Cancer, electrosensitivity, heart problems, asthma,...

#### **Youths & Young Adults At Greater Risk**

- \* Cancer specialist Ronald Herberman notes that brain cancer is on the rise for young adults in the last decade.
- \* Leonnart Hardell found children using cell phones before age 20 had 5.2x elevated risk for malignant brain tumors.
- \* Neurosurgeons like Keith Goh are noticing a trend of increasingly younger patients.
- \* Om Gandhi found RF energy absorption differences between children & adults (see images below).



10 year old child

adult

#### **Government Action**

#### Europe

In 2009, the **European Parliament** voted overwhelming to do something about the EMF health issue, including mobile phone base stations (cell towers), Wi-Fi, and DECT cordless phones (rapporteur: Frédérique Ries).

In 2008 and 2009, European nations, **Belgium and Liechtenstein**, tightened cell tower safety limits.

#### USA

In 2008 and 2009, **US Congress** held sessions to reevaluate the growing evidence that cell phones are dangerous.

In 2009, the **L.A. County Board of Supervisors** voted unanimously to seek federal legislation to overturn Section 704 of the Telecommunications Act of 1996, which took away local gov's' rights to refuse cell towers for health reasons.

In 2010, **San Francisco** became the first city to require SAR ratings on cell phones at point of sale.

## Some of the Worst Offenders: 24x7 Radiation Sources

We are in danger from the proliferation of non-stop wireless technologies over the last 10-15 years. These transmit 24 hours a day, 7 days a week.



**24x7** "Smart" Phones (Blackberry, android, iPhone, etc.) Some models transmit continuously, at least once a minute or two, even when not on a call. In contrast, *Old-fashioned Cell Phones* had standby modes.



**24x7 Cordless Phones(DECT model)** The base transmits the moment it is plugged in with peak transmit power ~250mW, similar to cell phones. In contrast, *Old-fashioned Cordless Phones* had standby modes.



#### 24x7 Wi-Fi Router

24X7 even when no computer is connected. Even printers, projectors, and other Wi-Fi peripherals can be transmitting 24x7.



#### 24x7 Cell Towers

Those within 300-400 meters have increased health symptoms and cancer clusters.

#### 24x7 "Smart" Meters

A new system being deployed that would wirelessly transmit utility usage 24x7!

## **3-5** years to start feeling it, **10** years to disease...

**Hecht and Balzer** uncovered Russian medical literature indicating that symptoms may take 3-5 years of chronic 24x7 exposures to emerge, and 10 years to become severe, approaching disease.

#### **Symptoms of Chronic Exposure**

**Neurological:** Headaches, dizziness/nausea, memory & concentration difficulties, insomnia, depression/anxiety, fatigue/weakness, numbness/tingling, muscle and joint pains.

*Cardiac:* Heart palpitations, shortness of breath, heart arrhythmias, high blood pressure.

Eyes: Pain/discomfort, pressure in the eyes, deteriorating vision

**Ears:** Ringing in the ears, hearing loss

*Other:* Skin problems, digestive problems, dehydration, nosebleeds, impaired sense of smell and light sensitivity.

From http://www.icems.eu/docs/EMFacts-WIFI.pdf

## Electrohypersensitivity

**Electrohypersensitivity, or EHS**, is a condition where someone develops a heightened response to microwaves.

- •Sweden: EHS is recognized as a disability in Sweden. An estimated 230,000 or more Swedes have EHS. The book, Black on White, documents the Swedish experience.
- •**France**: In 2007, France National Library withdrew Wi-Fi as a result of health complaints of staff workers. In 2009, Next-Up created the first radiation-free refuge for those seeking escape from modern life.
- •USA: In 2009, The EMR Policy Institute has compiled legal affidavits from across the country of individuals with health issues around cell towers
- •International Association of Firefighters: Petitioned for health study on cell towers; firefighters were affected by disabling illnesses after antennae installations

EHS has also hit the **UK**, **Netherlands**, **Canada**, and so forth. Up to 3% or more of the population may be affected. For more info, see studies by Magda Havas, Olle Johansson, and Bruce Hocking.