# The Research: Biological Effects

# Thousands of Studies Are Showing Biological Effects

### Increases Cancer Risk

- \* 200% increase in Brain Tumors and Acoustic Neuromas for those using a cell phone on the same side of the head for 10 years (average 30 minutes per
- \* Children who start using a cell phone before the age of 20 are 5 times more likely to get brain cancer 49.
- \* Cell Phone Radiation Breaks DNA leading to mutated genes cancers, and deformities 50.
- \* There is evidence that we are indeed moving towards a brain tumor epidemic. Experts are predicting a 2000% increase in brain tumors the next 20 years 51.

#### Affects Fertility and Breaks DNA

- \* Cell Phone Use/Exposure decreases sperm count and sperm motility (the ability for the sperm to find its way to the egg) 52.
- \* Experiments show increased rates of deformities/mortality in chick embryos 53

#### Triggers (and may cause) Allergic Reactions

\*Increases allergic reactions like eczema, asthma, and hay fever 54.

#### **Disrupts Hormones and Neurotransmitters**

- \* EMR exposure changes the levels of hormones and neurotransmitters in the brain like melatonin, serotonin, dopamine, norepinephrine, and acetylcholine55. Changes in these hormones/neurotransmitters are associated with sleep disturbances, Sudden Infant Death Syndrome, Attention Deficit Hyperactivity Disorder (ADHD), CFS, miscarriages, heart disease, cancer, Alzheimer's, Parkinson's, depression, behavior changes, chemical sensitivities, and suicide56.
- \* Produces an (initial) increase in the adrenal stress hormones Adrenaline and Cortisol - connected with restlessness and anxiety and eventuating in adrenal exhaustion57.

#### Weakens Immune System

- \* Research has shown that just having a wireless device on your body in standby mode can weaken your immune system<sup>58</sup>.
- \* Decreases Natural Killer Cell counts necessary for defending against pathogens and destroying abnormal (virally-infected and cancer) cells<sup>59</sup>.
- \* Changes the T-helper/T-suppressor (T4/T8) cell ratio from normal to abnormal - which has been shown to lead to increased susceptibility to viral, fungal, and bacterial infections<sup>60</sup>. Symptoms include "sore throats, lowgrade fevers, weakness, persistent fatigue, and swollen lymph glands61."

### Can Damage Kidney and Heart Function

In a study carried out by Dr George Sajin at the European Research Institute for Electronic Components based in Bucharest, samples of blood were exposed to varying degrees of microwave radiation over a period of between 10 and 60 hours. Even at levels lower than those emitted by mobile phones, the cells leaked hemoglobin. The unsequestered iron from hemoglobin can accumulate in - and hence damage - kidney and heart tissue 62.

# The Copenhagen Resolution

The Copenhagen Resolution 65 was passed at the conference "The Shadow Side of Wireless Society" in Copenhagen. Denmark on October 9th, 2010. It is based on previous international appeals, resolutions and the Bioinitiative Report from Medical Doctors and Scientists who state the need for prevention of damage to public health from the exposure to radiation from Wireless Technology. It makes the following demands:

- \* A considerable lowering of guidelines and exposure to wireless microwave radiation, to a biologically based precautionary level, with a peak-level maximum of 0.6 V/m as recommended by the BioInitiative report.
- Information and official warnings for the general public, regarding the health risks from wireless microwave radiation - with emphasis on increased risks for pregnant women and children.
- Warning labels on wireless radiation emitting products and a determination by the producers to design such products to emit as little radiation as possible, and emit radiation only when necessary.
- \* Restrict and discourage children's access to, and use of wireless radiation emitting products.
- \* Electro Hyper Sensitivity must be officially recognized as a functional impairment.
- \* Enable and respect local community influence on the location of wireless base stations and a full disclosure of all existing and planned wireless base-station locations.
- \* Minimize wireless radiation exposure in public spaces occupied by vulnerable groups, like schools, day care facilities and public transport.
- \* Establish White-Zones: low-radiation communities where Electro Hyper Sensitive people can live as well as providing financial support for shielding from wireless radiation in existing homes.
- \* Promote health safe alternatives to wireless technology.
- \* Independent research must be undertaken.

Recommended Books 66: The Zapping of America, The Body Electric, Cross Currents, Electromagnetic Fields, Would You Put Your Head in a Microwave Oven?, Dirty Electricity, Zapped, Disconnect, Wireless Radiation Rescue -Safeguard Your Family From Electro-pollution, Cell Phones: Invisible Hazards In The Wireless Age, Public Health SOS: The Shadow Side of the Wireless Revolution,

Recommended Movies/Videos 67: Full Signal, Public Exposure, Radiant Day, Panorama: WiFi, A Warning Signal, Dear Helen Clark, The Cell Phone Song: Invisible Hazards in the Wireless Age

#### The Sunflower Project

Recently, there has been a dramatic increase in environmental illnesses like Multiple Chemical Sensitivity (MCS), Atopic Dermatitis, Asthma, Autism, CFIDS, ADHD, etc. due to increases in environmental pollutants. The primary goal of the Sunflower Project (the brainchild of Kato Yasuko of Sapporo, Hokkaido, Japan) is to create a clean, safe, and healthy living environment for all life and living beings on this planet.

### International Coalition for an EMR-Safe Planet (IC-ESP)

For references see http://www.scribd.com/doc/58140784/References-for-Unwittingly

The Sunflower Project EMR Fact Sheet



# Are You "Unwittingly" Being Affected By Electromagnetic Radiation?

While we may not be able to sense it with your five senses (sight, sound, smell, taste, touch), we are now being exposed to from thousands to millions of times1 the amount of electromagnetic radiation we would normally get from natural sources (Sun, Earth, Stars etc.).

Worldwide, a rapidly increasing number of people are becoming sensitive to the electromagnetic radiation (EMR) emitted by cell phone towers, cell phones, WiFi, WiMax, TETRA<sup>2</sup>, Smart Meters, etc. In fact, several European scientists have predicted that by 2017, 50% of the population may be electro-sensitive (ES)<sup>3</sup>.

If you experience any of the following "unexplained" symptoms, you may in fact be unknowingly exhibiting the symptoms of ES yourself:

•Headaches •Nausea •Brain Fog •Memory Problems • Fatigue •Dizziness •Insomnia •Heart Pain/Palpitations •Swollen Lymph Nodes •Intestinal Disturbances •Eye Pain •Dry Eyes •Vision Problems •Night Sweats •Excessive Thirst •Increased Allergies/Sensitivities

If you put a frog in hot boiling water, it will jump out. However, if you put a frog in cold water and slowly heat the water, you can cook the frog because it will not notice the gradual change in temperature. Well, with the ever-increasing amount of ambient electromagnetic radiation in our environments, we might be experiencing the same fate as the frog that does not realize it is being cooked.



As a human being aware of being affected by electromagnetic radiation, I would like to ask you to consider the possibility this technology might adversely be affecting you and others around you and to be more conscious, considerate and compassionate when using your devices around other human beings - especially in buses, trains, airplanes, where this radiation is reflected and increased. Thank you!



### What is Electro-sensitivity/Microwave Sickness?

Electro-sensitivity/Microwave Sickness is a condition where a person feels sick when exposed to the EMR given off by cell phone towers (masts), DECT<sup>4</sup>, WiFi; and electronic devices such as mobile phones, and computers. Symptoms appear when the person is exposed to the offending EMR and diminish as the person moves out of range of the EMR.

**Major Symptoms:** (Very often appearing with the installation of a nearby cell-phone tower, a home WiFi [Wireless Internet] or DECT system. [Cancer clusters start forming around cell towers after between three & seven years<sup>5</sup>.])

•Headache •Sleep disturbances (Insomnia) •Dizziness
•Nausea •Heart Palpitations •Heart Pain •Concentration
Problems •Fatigue •Listlessness •Indigestion •Reddening
of Skin •Tingling Sensations •Anxiety Attacks •Memory
Problems •Swollen Lymph Nodes •Excessive Thirst
•Frequent Urination •Vision Problems • Tinnitus
(Ringing in the Ears), etc.



# Fifty Percent of Population Affected by Year 2017?

There has been a drastic increase in the number of people affected by EMR and it is predicted that by the year 2017 over half the population may suffer from symptoms of electro-sensitivity. In 2008, 57.25 million prescriptions for sleeping pills were issued in the US.6; brain tumors are the leading cause of cancer death in children<sup>7</sup>; an estimated one in 110 children (in the USA) now suffer from Autism Spectrum Disorders (ASD)<sup>8</sup> – up from 1 in 2000 in the 70s<sup>9</sup>; one in four Americans now suffer from diabetes or pre-diabetes conditions<sup>10</sup> and one in seven couples suffer from fertility problems<sup>11</sup>.



Deformed cows near cell phone towers in Germany are just one example among many animal deformities appearing around the world. (Research has also connected the worldwide disappearance of frogs, birds, and insects [most recently bees] with the dramatic increase of electrosmog permeating our planet.<sup>12</sup>).

### You Have Been Warned: The Momentum Is Building!

1971 - \*USSR Institute of Labor Hygiene and Occupational Diseases researchers describe comprehensive set of symptoms, identified as *Microwave Sickness*. Symptoms include low blood pressure, slow pulse, headaches, dizziness, eye pain, sleeplessness, irritability, anxiety, stomach pain, nervous tension, inability to concentrate, hair loss, adrenal exhaustion and ischemic heart disease<sup>13</sup>.

1972 - \*Zory R. Glaser of Naval Medical Research Institute writes paper "Bibliography of reported biological phenomena ('effects') and clinical manifestations attributed to microwave and radio-frequency radiation" reviewing over 2000 studies, finding a multitude of problems including "headaches, insomnia, restlessness, fatigue, seizures, convulsions, heart problems, dizziness, memory loss," and so on14.

**1977** - \*Paul Brodeur`s book *The Zapping of America*<sup>15</sup> further warns of the dangers of electropollution.

1985 - \*The Body Electric 13 by Dr. Robert O. Becker further warns of the dangers of electropollution.

1995 - \*Further warnings are issued in B. Blake Levitt`s book *Electromagnetic Fields*<sup>16</sup>.

**1998** - \*It is agreed at the **Vienna Resolution**<sup>17</sup> that the biological effects of low-intensity EMFs are scientifically established.

2002 - \*German medical doctors - the Interdisciplinary Society of Environmental Medicine - issue concern about wireless technology (cell phones, DECT, etc.) in Freiburger Appeal<sup>18</sup> (reaching close to 40,000 signatories) after finding a cause-and-effect relationship between "a dramatic rise in severe and chronic diseases" (e.g. behavioral disorders, ADD, blood pressure disorders, heart attacks and strokes, brain-degenerative diseases, & cancers like leukemia and brain tumors) with increased exposure to EMR.

2005 - \*World Health Organization (WHO) officially recognized electro-sensitivity as a "real and sometimes disabling condition" 19. \*Vienna Doctors Chamber (Wiener Arztekammer) — after the REFLEX20 Studies clearly showed genetic damage — create posters (posted in hospital waiting rooms) warning of dangers and listing rules for use<sup>21</sup>.

**2007** - \***Italy** enacts ban on all cell phones in schools<sup>22</sup>. \***Report** is issued by international group of renowned scientists, researchers, doctors, and public health experts entitled the **BioInitiative**.org), which warns

Prolonged exposure to radiofrequency and microwave radiation from cell phones, cordless phones, cell towers, Wl-Fl and other wireless technologies have been linked to physical symptoms including headache, fatigue, sleeplessness, dizziness, changes in brainwave activity, and impairment of concentration and memory.

\*German government warns citizenry not to use mobile phones and WiFi<sup>24</sup>.
\*London Resolution<sup>25</sup> calls on governments to protect children from harm posed by EMFs. City of Paris votes to ban WiFi in Public Libraries<sup>26</sup>. \*Australian Democrats commission discussion paper finding microwave radiation from cell phone towers very likely be behind the drastic rise in disease states like cancer, diabetes, asthma, allergies and Alzheimer's disease etc<sup>27</sup>.

2008 - \*Toronto's department of public health issues advisory warning teenagers and young children to limit use of cellphones to avoid potential health risks<sup>28</sup>. \*Director of the University of Pittsburgh Cancer Institute calls for caution<sup>29</sup> in the use of cell phones. \*UK Teacher Union Chief, Philip Parkin calls for the suspension of WiFi in all UK schools<sup>20</sup>. \*European Parliament notes that EMF exposure limits are obsolete<sup>31</sup>.

2009 - \*Finnish Radiation and Nuclear Safety Authority (STUK) recommends restricting the use of mobile phones by children<sup>32</sup> \*Belgium Government votes to reduce ambient exposure limits to 3V/M<sup>33</sup> \*European Parliament votes for reductions in EMF exposures<sup>34</sup>. \*French government imposes a ban on cell phones in all primary schools<sup>35</sup>. \*Mayors of several French cities request a trial period for reducing EMF exposures in their cities<sup>36</sup> \*Liechtenstein votes to adopt the Bioinitiative recommendations of 0.6 V/M<sup>37</sup>.

2010 - \*Interphone studies finally acknowledge link between cell phone use and brain tumors<sup>38</sup>. \*San Francisco passes cell phone radiation law, in which stores selling cell phones are required to display the amount of radiation emitted by phone<sup>39</sup>. \*The following month, the CTIA (the representative of the wireless industry) sues the city of San Francisco over the law and withdraws its annual conference in San Francisco<sup>40</sup>. \*High Court in Italy rules that an employer who forced his staff to use mobile and cordless was legally responsible for a brain tumor and instructed to pay compensation to the person concerned, plus legal costs<sup>41</sup>. \*Swisscom offers free fiber optics to all Swiss schools<sup>42</sup>.

2011 - \*Parliamentary Assembly of the Council of Europe (PACE) calls on governments to take reasonable measures to reduce exposures to electromagnetic fields<sup>43</sup>. \*WHO's International Agency for Research on Cancer declares cell phones a possible carcinogen<sup>44</sup>.

### The Vienna Doctors Chamber's Rules for Cell Phone Use

- Cell phone calls should be as few and as brief as possible. Children and teenagers under 16 should not use cell phones.
- Cell phones should not be held near the head while making and receiving calls.
- Cell phones should not be used in vehicles (cars, buses, trains) the radiation there is higher!
- When sending text messages the cell phone should be held as far away from the body as possible!
- A caller should position herself several meters away from other people
   the radiation is harmful to them as well!
- Never use a cell phone to play games!
- Headphones (earplugs) may also be unsafe the wire may attract radiation!
- Wireless Networks (WiFi, WiMax, etc.) produce high amounts of
- Always switch your cell phone off at night and never keep it near your head while sleeping.
- Never keep your cell phone in your front pocket the radiation can affect male fertility.

Before the call.



After the call.



The effect of a ninety-second cell phone call on red blood cells (RBC) on both the user and those within at least 1.7 meters. This affects the RBC's ability to transport oxygen to and carbon dioxide away from cells<sup>45</sup>.

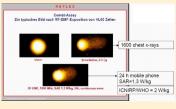








The amount of radiation penetration of the skull of an adult, a 10-year old, and a 5-year old.



The REFLEX studies clearly shows DNA breaks. The photo in the top left corner is a normal cell. The photo on the right is a cell exposed to 1600 chest x-rays. The photo on the bottom is a cell exposed to 24 hours of cell phone radiation. The trails coming out of the cell are called micronuclei -broken DNA leaking out of the cells<sup>47</sup>.