

# EMFs 101: Impacts on Health in the Community

- ElectroSmog
- ElectroHyperSensitivity
- Electromagnetic Hygiene



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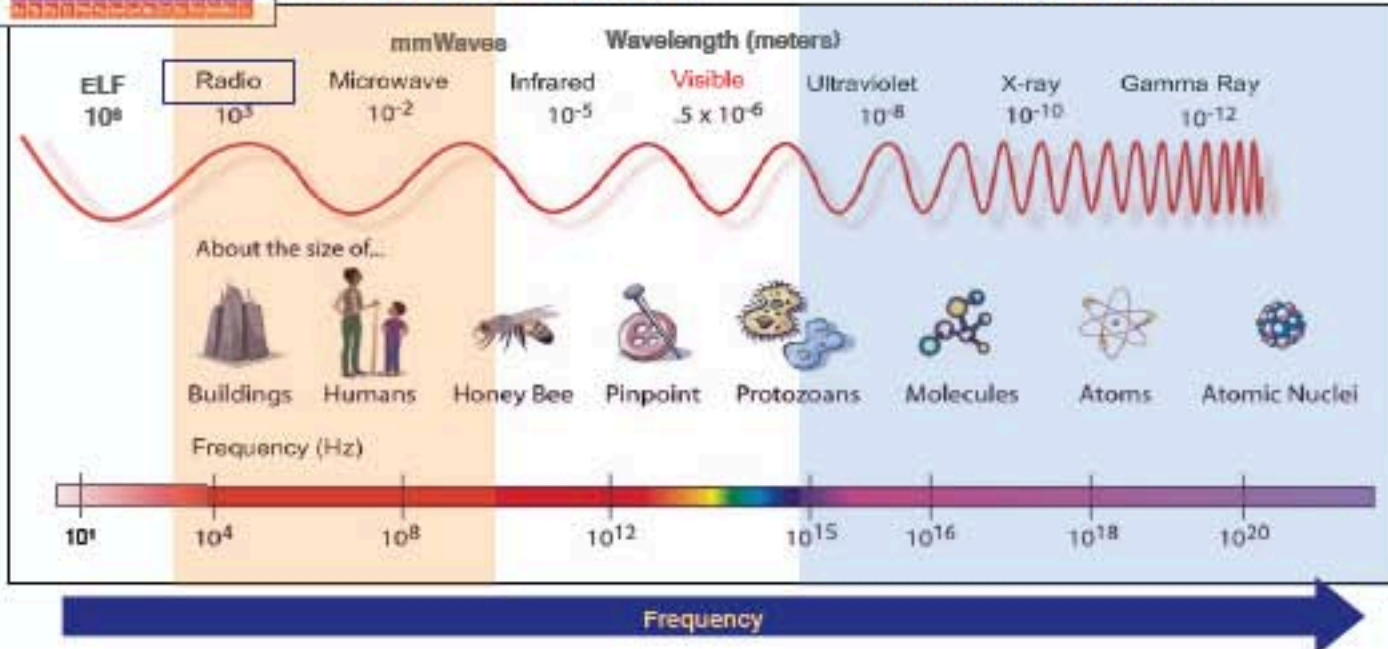
## Chemicals

PERIODIC TABLE OF THE ELEMENTS

H																	He	
Li	Be											B	C	N	O	F	Ne	
Na	Mg											Al	Si	P	S	Cl	Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	
Fr	Ra	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Uut	Fl	Uup	Lv	Uus	Uuo		
		La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
		Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

## Electromagnetic Spectrum

Non-Ionizing Radiation      Ionizing Radiation

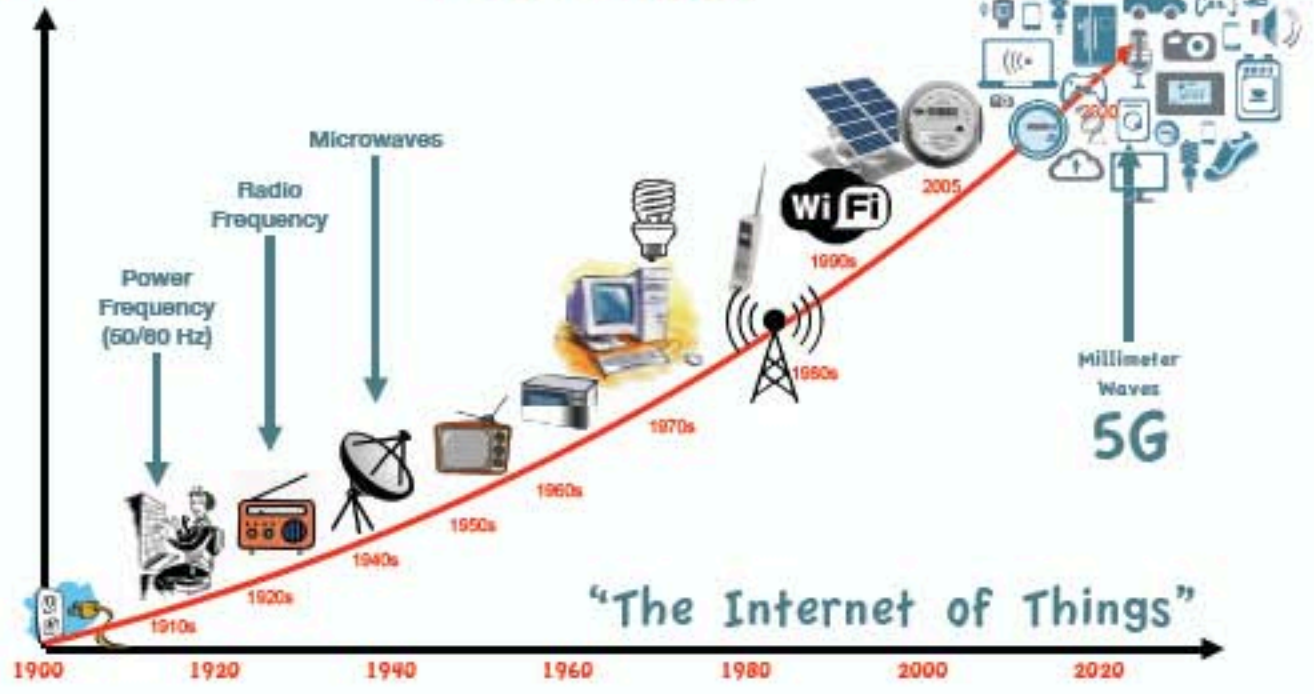


**FACT!**

**Electrosmog exposure increasing**

Exposure

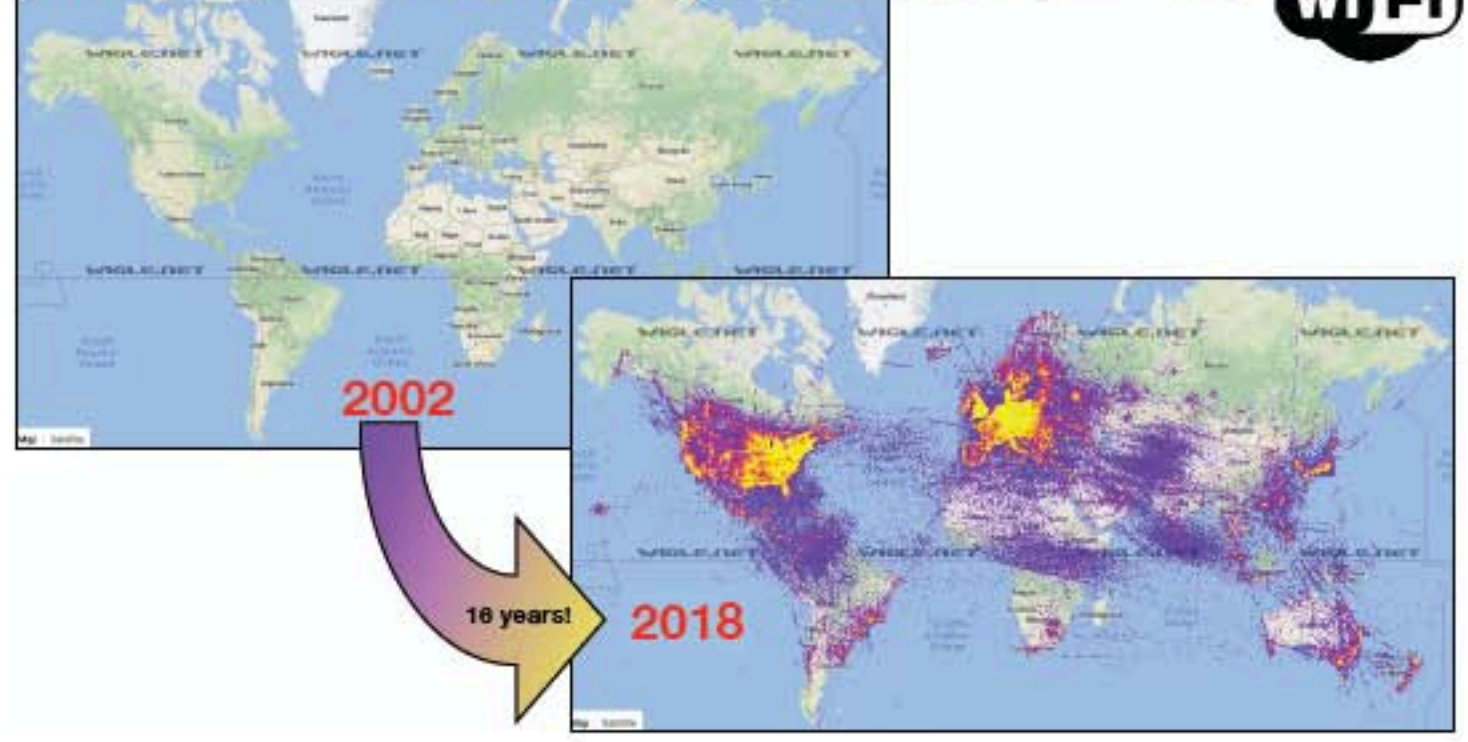
# ElectroSmog



**FACT:** Exposure **ElectroSmog** Increasing Exponentially!



**FACT:** Exposure **ElectroSmog** Increasing Exponentially!



# FACT!

**Most of our exposure is self-generated**

No Choice!

Choice!



Choice!

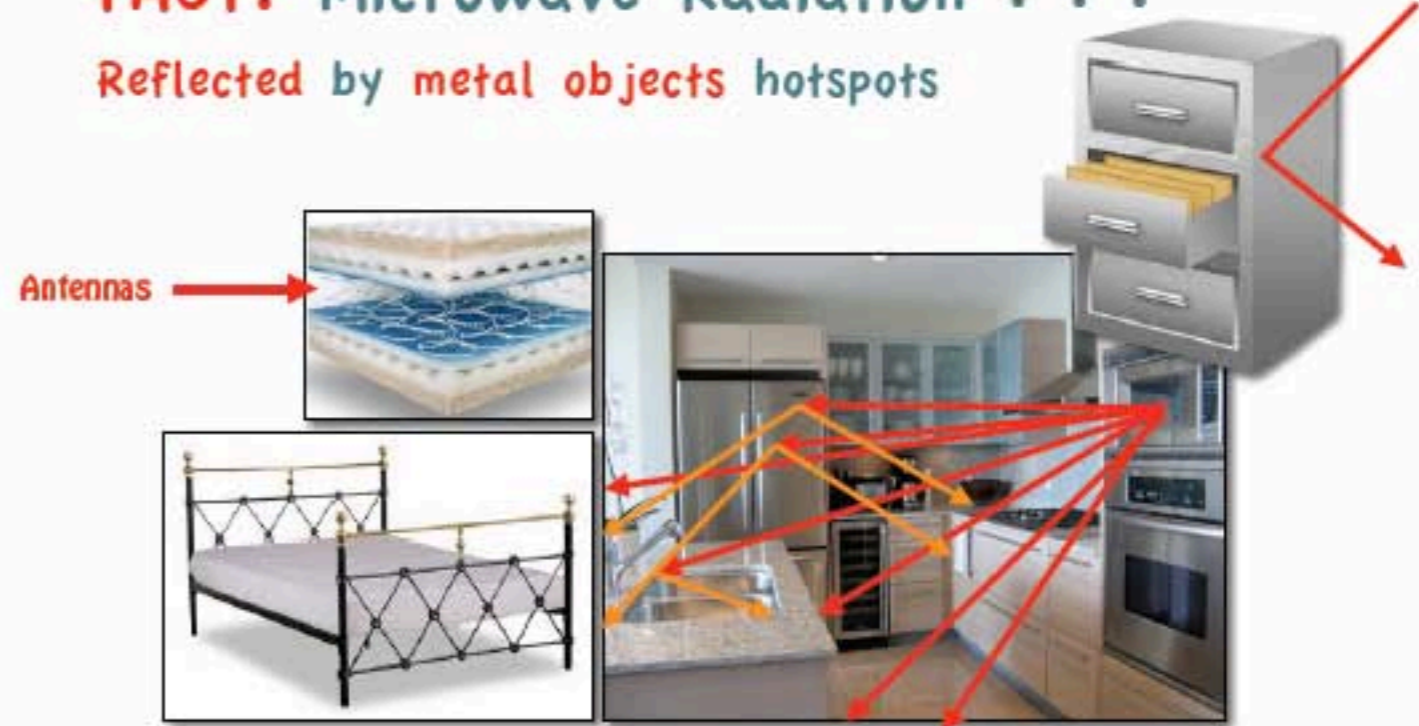
No Choice!



**FACT:** Microwave Radiation . . . penetrates walls

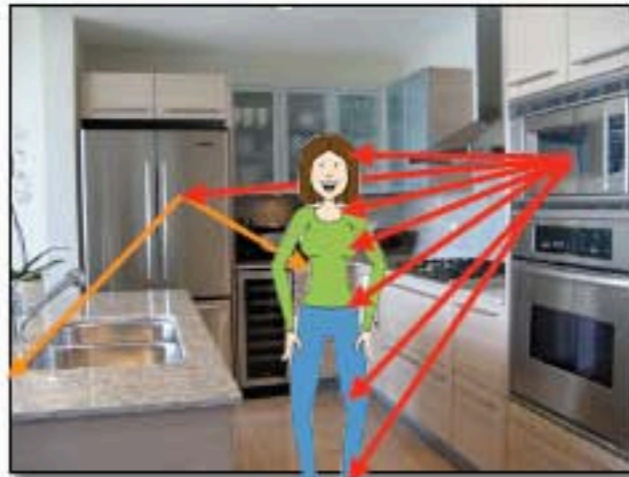


**FACT:** Microwave Radiation . . . Reflected by metal objects hotspots



# FACT: Microwave Radiation . . .

Absorbed by water

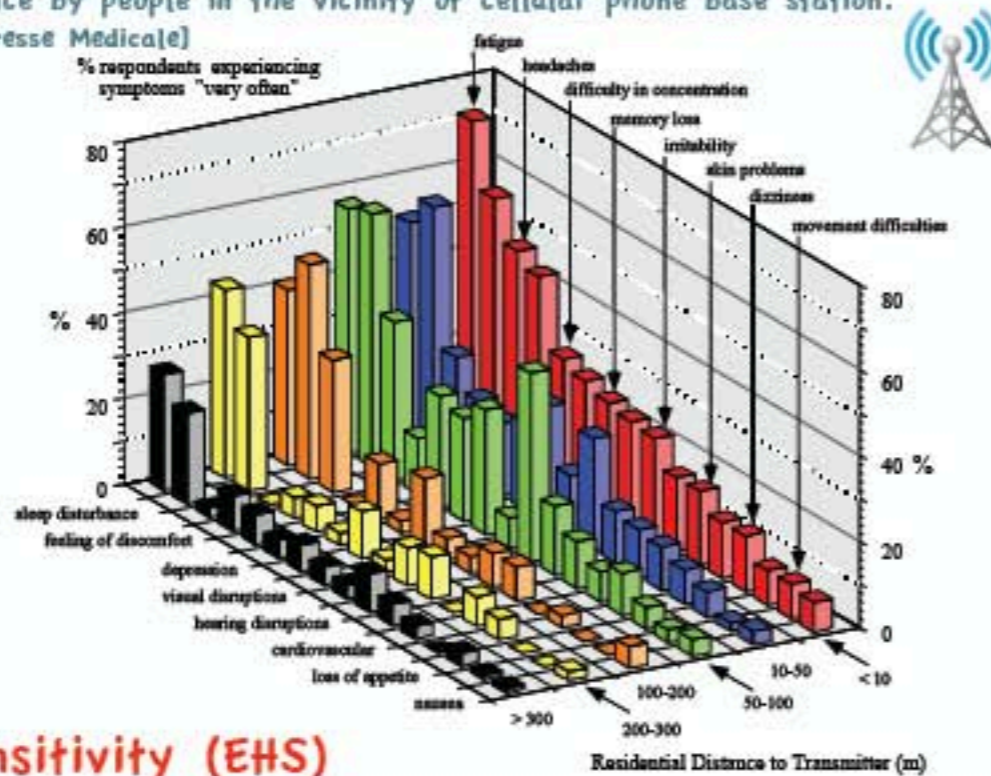


# FACT!

People Exposed to Electrosmog are getting sick!  
Electro-Hyper-Sensitivity (EHS)

2001  
Spain

Symptoms experience by people in the vicinity of cellular phone base station.  
[Sanfíni 2001, La Presse Médicale]



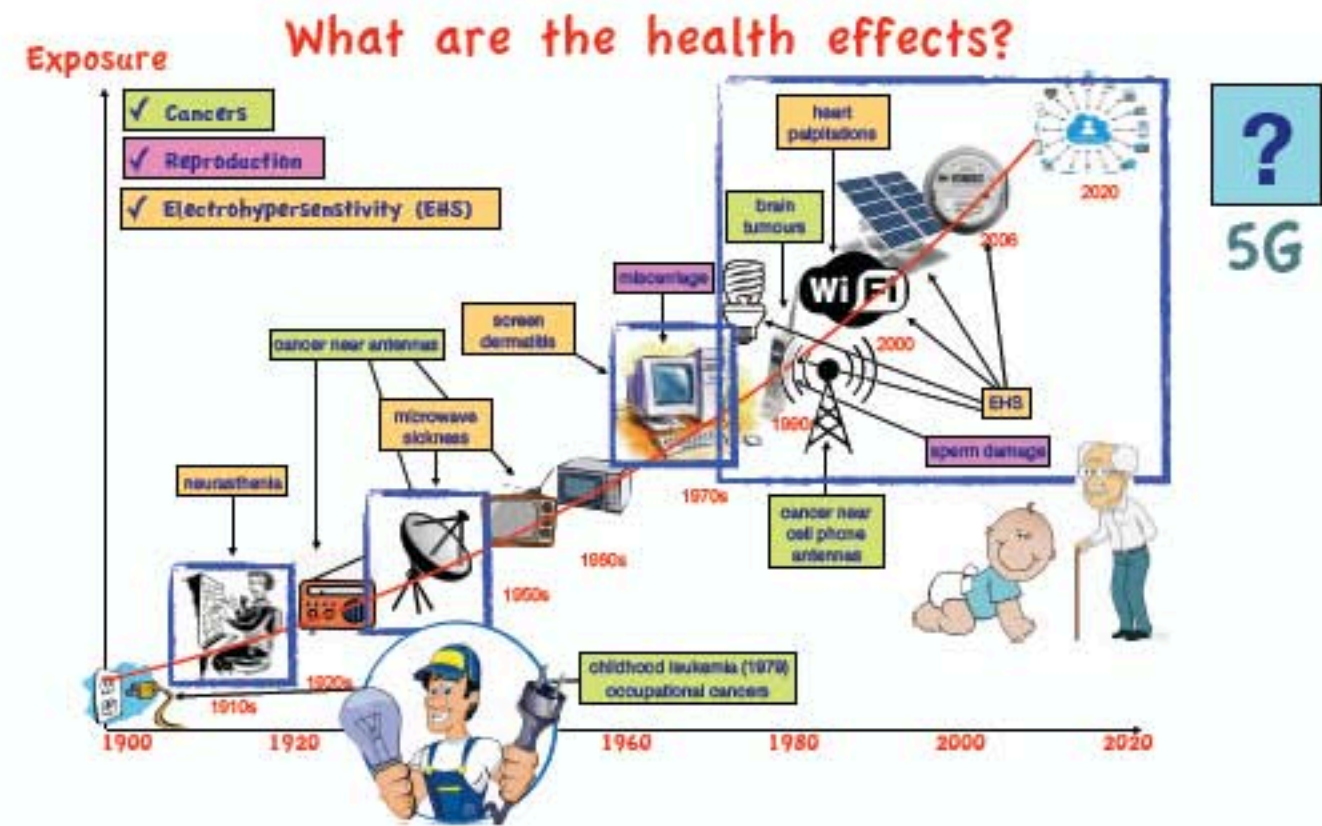
1. Fatigue
2. Sleep disturbance
3. Headaches
4. Feeling of discomfort
5. Difficulty concentrating
6. Depression
7. Memory loss
8. Visual disruptions
9. Irritability
10. Hearing disruptions
11. Skin problems
12. Cardiovascular
13. Bitchiness
14. Loss of appetite
15. Movement difficulties
16. Nausea

Electro-Hyper-Sensitivity (EHS)

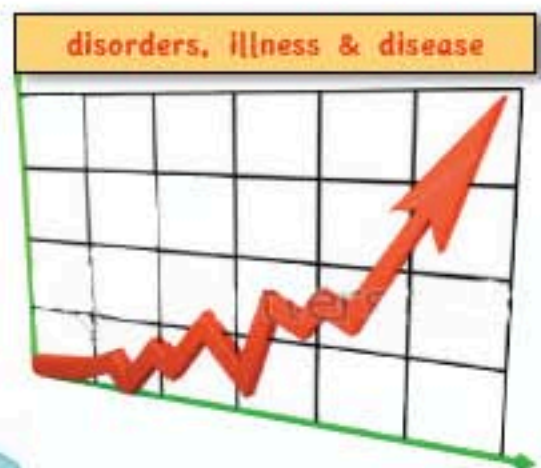
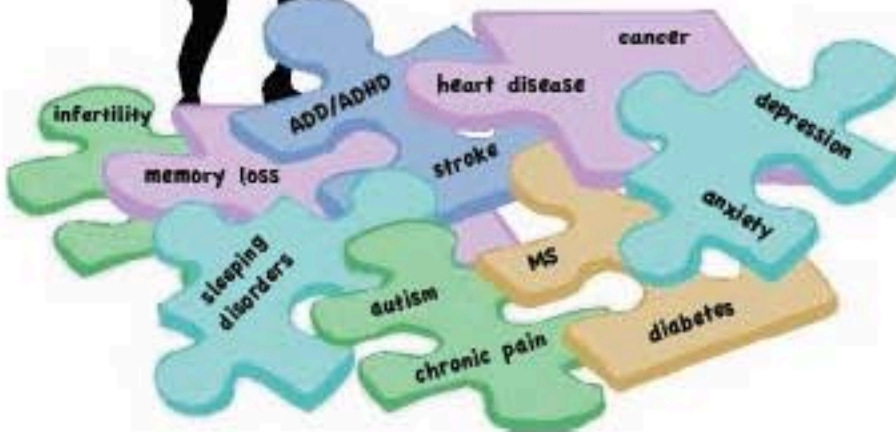
Who lives within 10 m from cell antenna?



# What are the health effects?



Doctors less successful patients



"Aging illnesses" increasing in younger people  
 ● insomnia  
 ● chronic pain  
 ● anxiety  
 ● heart disease

## Electro-hyper-sensitivity

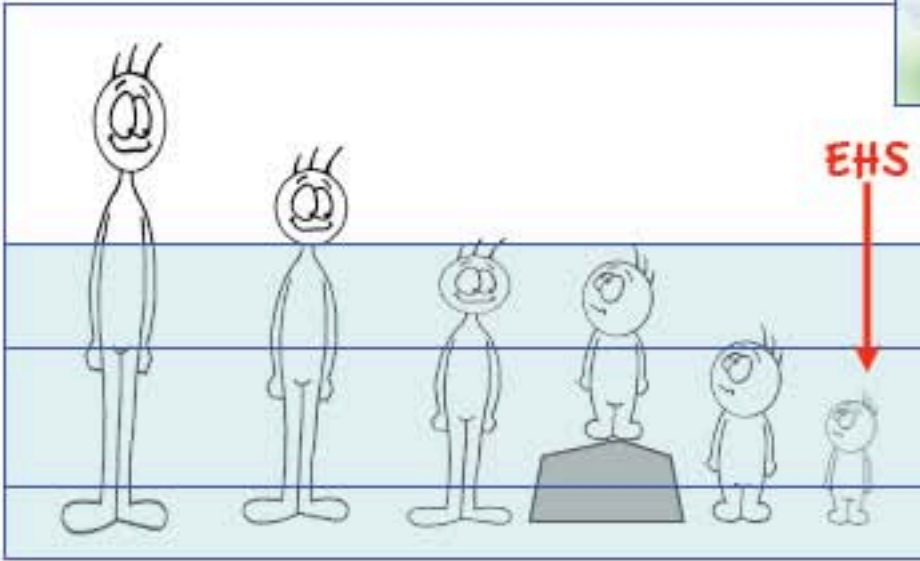
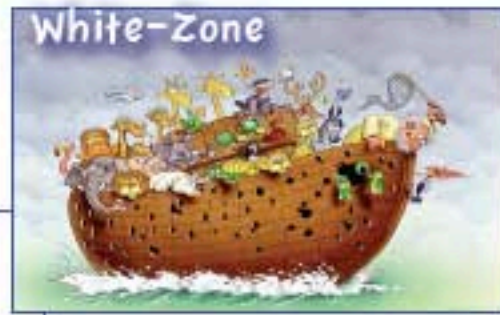
How many people are affected ?

	Population	Severe (3%)	Moderate (35%)
Toronto	6.4 million	192,000	2.2 million
Ontario	15 million	450,000	5.2 million
Canada	37 million	1.1 million	13 million



# Flood Analogy

## Electrosensitivity (EHS)



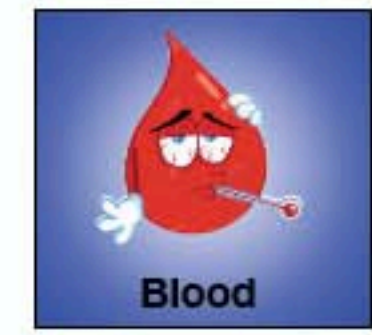
coming soon - 66%

present situation - 35%

no effect mark

# FACT!

## EHS is NOT psychosomatic!

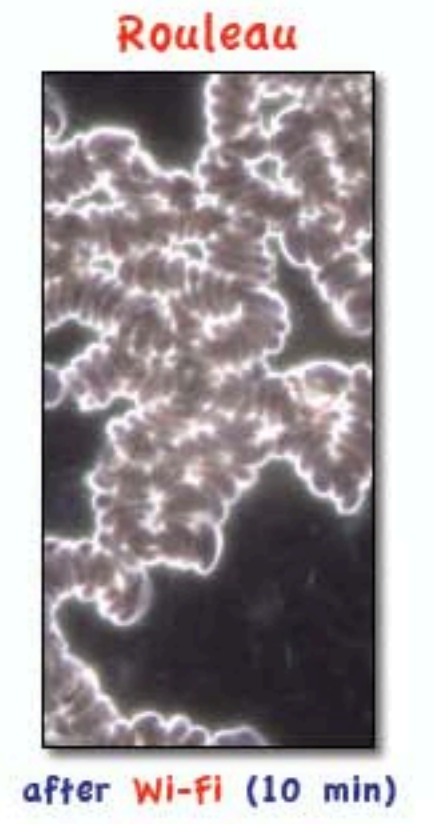
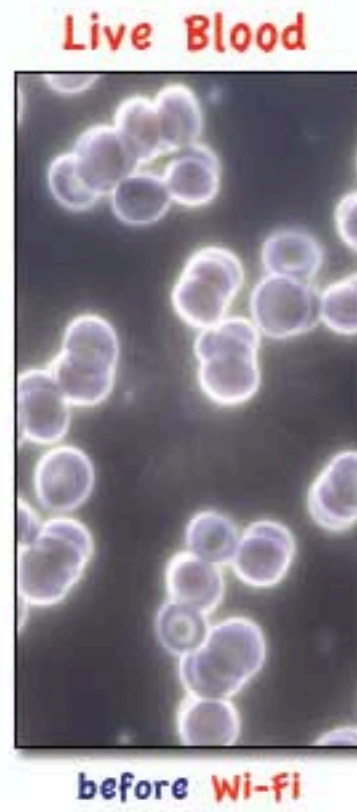


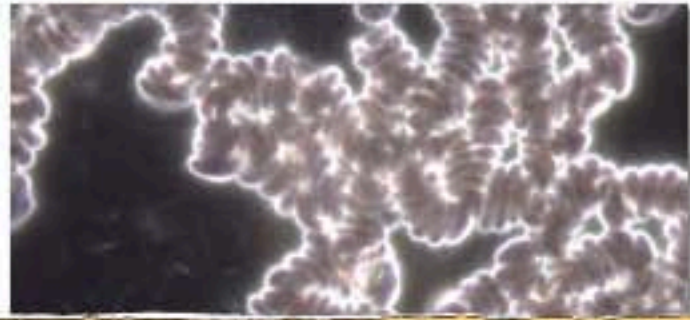
DE GRUYTER  
DOI:10.1515/med-2013-0004  
Magda Havas\*

**Radiation from wireless technology affects the blood, the heart, and the autonomic nervous system<sup>1)</sup>**

**2013**

**Abstract:** Exposure to electromog generated by electric, electronic, and wireless technology is accelerating to the point that a portion of the population is experiencing adverse reactions when they are exposed. The symptoms of electrosensitivity (EHS), best described as rapid aging syndrome, experienced by adults and children resemble symptoms experienced by radar operators in the 1940s to the 1960s and are well described in the literature. An increasingly common response includes clumping (rouleau formation) of the red blood cells, heart palpitations, pain or pressure in the chest accompanied by anxiety, and an upregulation of the sympathetic nervous system coincident with a downregulation of the parasympathetic nervous system typical of the "fight-or-flight" response. Provocation studies presented in this article demonstrate that the response to electromog is physiologic and not psychosomatic. Those who experience prolonged and severe EHS may develop psychological problems as a consequence of their inability to work, their limited ability to travel in our highly technologic environment, and the social stigma that their symptoms are imagined rather than real.





## Consequences

- ✓ sluggish circulation
- ✓ lower oxygen transport
- ✓ reduced waste removal

Live blood analysis may be a useful diagnostic for electrohypersensitivity.

## Symptoms

- ➔ headache, fatigue, dizziness
- ➔ difficulty concentrating
- ➔ numbness, tingling, cold extremities
- ➔ heart & blood pressure problems . . .
- ➔ heart attack or stroke

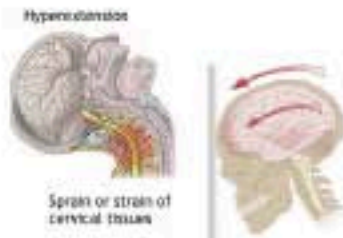
# Why do some develop Electro-Hyper-Sensitivity?

## Precursors for ElectroHyperSensitivity



### 1. physical trauma to nervous system

- whiplash, concussion ..



### 2. chemical exposure

- pesticides, metals, drugs, etc.
- mercury



### 3. electrical exposure

- shocks, electrocution
- lightning strikes
- power lines, antennas, Wifi



### 4. biological trauma

- mould
- parasites
- Lyme (tick) etc.



### 5. Impaired immune system

- lupus, cancer, AIDS
- elderly, very young

# Solutions?

# RIDE Treatments for EHS

**R**educe Exposure

**I**mmune System

**D**etoxify

**E**motional/Psychological Trauma

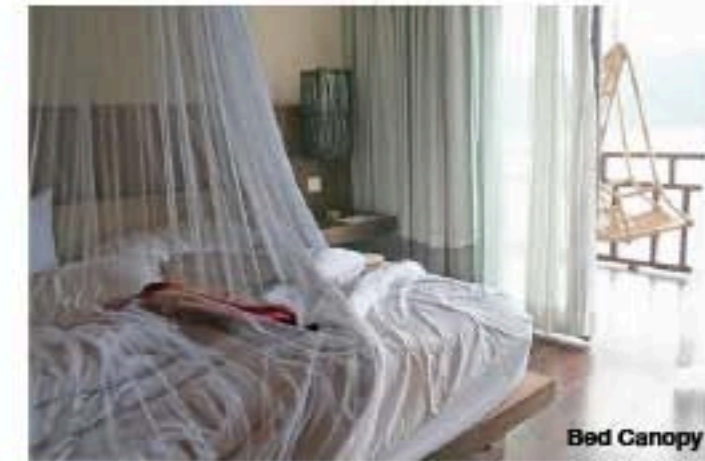
# Reduce Exposure



Acoustic2 Meter  
(200 MHz - 8 GHz)



Electromag Meter  
(10MHz - 8 GHz)



Bed Canopy



Smart meter shielding



Window Film



RF Shielding Paint



# Reduce Exposure: silver clothing



Hat Liner



Pocket Liner



Underwear



Protect Fetus



Protect Baby

# Electromagnetic Hygiene in 12 easy Steps

**How To Create A Cleaner Electromagnetic Environment**  
Electromagnetic Hygiene is a novel concept that refers to creating an electromagnetically clean environment. Our environment is increasingly being bombarded by electromagnetic frequencies that include (1) radio frequency radiation, (2) poor power quality (also known as dirty electricity), and (3) low frequency electric and magnetic fields. Some people become ill when exposed to this energy. For them, practicing good electromagnetic hygiene is necessary to initiate their recovery. For those who are not sensitive, reducing exposure to potentially harmful frequencies is a good preventative measure to maintain good health. This FACT sheet provides tips on how to create a cleaner electromagnetic environment.

- 1. Radio Frequency (RF) and Microwave (MW) Radiation**  
Sources: Cell phone, cordless phone, smart meter, wireless baby monitors, wireless computer games, microwave ovens, Wi-Fi router, some wireless keyboards and wireless mouse, wireless security systems, cell phone antennas, radio, TV and radio broadcast antennas.
- 2. Dirty Electricity (Intermediate Frequencies)**  
Sources: Computers, televisions, tube fluorescent lights, compact fluorescent light bulbs, dimmer switches, variable speed motors/tools, treadmills, vacuum cleaners, sewing machines, solar photocell carls, wind turbines, smart meters and devices that require inverters.
- 3. Low Frequency Electric and Magnetic Fields (ELF)**  
Sources: Transmission lines, distribution lines (above and below ground), substations, transformers, electric breaker panel, faulty wiring, knob and tube wiring in older homes, power supply cables, electric appliances especially those that generate heat (i.e. electric stove, toaster, hair dryer), computers, and grounded metal pipes (in some areas).





## Electromagnetic Hygiene in 12 easy Steps

### Electromagnetic Hygiene in your Office:

1. **Electro Equipment:** Increase distance from electrical cords and electric equipment. Move the power bar at least 1 meter away from your feet. Use a wired extended keyboard to increase your distance from the computer screen. This will reduce the magnetic field.
2. **Lighting:** Try to work with the fluorescent tube lighting turned off. Remove CFL (compact fluorescent bulbs) from your work area. LED lights (ones that don't use transformers) are the lights of the future. In the meantime use incandescent light bulbs, as these do not generate poor power quality.
3. **Internet Access:** Use an Ethernet cable for internet access (not Wi-Fi). If you need to use wireless, ensure the wireless router is as far as possible from your body and turned off when not in use. Ensure that you turn off the Wi-Fi on your computer and not just the router. Use a wired mouse and keyboard.
4. **Cordless Phone:** Replace your cordless telephones with a corded landline phone. The new digital cordless phones in North America (DECT phones) constantly emit microwave radiation, even when not in use. The older analog phones emit microwave radiation only when being used. The best option for reducing RF exposure is to use a wired phone.
5. **Cell Phone:** Text instead of talk, and use the "speaker phone" option when talking and don't hold the phone next to your head. Do not keep phone in a pocket or in a belt. When not using your cell phone, keep in airplane mode (with Wi-Fi turned off) so it does not radiate.
6. **Electrical Panel & Utility Room:** Ensure that workers are at least 3 meters from an electric panel and are not adjacent to a utility room as these generate high magnetic fields.

For more information visit: [www.cdeh.org](http://www.cdeh.org)  
[www.cdeh.org](http://www.cdeh.org)  
[www.gdps.org](http://www.gdps.org)  
[www.magdahavas.com](http://www.magdahavas.com)

\* If all sources close your EMF environment, try an EMF shield to measure and remediate your exposure. For information contact [shawn@gdps.org](mailto:shawn@gdps.org).  
† US stores use lead capacitors that reduce high frequency voltage stresses on electrical wires. They protect sensitive electronic equipment. Research shows they also reduce symptoms of electromagnetic sensitivity.

### Electromagnetic Hygiene in your Bedroom:

We spend a third of each day in our bedroom and for that reason, it is important that the bedroom be electromagnetically clean. Reduce electromagnetic in your bedroom by following the steps for your office as well as the steps below:

1. **Baby Monitor:** Remove wireless baby monitors. Wireless baby monitors constantly transmit microwave radiation. Infants should not be exposed to this radiation. Voice activated baby monitors are not yet available in North America but are available in Europe.
2. **Clock Radio:** Move clock radio (and other electric equipment) so it is at least 1 meter from your bed (clock radios emit electromagnetic fields that may affect sleep). Keep bedroom as dark as possible as light also affects sleep.
3. **Computer, Cell Phone, Wi-Fi router, tablet:** Unplug computer at night if it is in your bedroom. Disconnect Wi-Fi router and turn your cell phone off or keep it in airplane mode with Wi-Fi turned off. This is especially important for children under the age of 18. Several national and international advisories are recommending that children under the age of 18 limit their cell phone use. Use (pods/pads and other tablets) in airplane mode with Wi-Fi turned off.
4. **Smart Meters:** Ask your utility to have your wireless smart meter wired or use analog smart meters. If this is not possible, use GS filters\* to reduce the levels of day electricity generated by smart meters and do not sleep in room adjacent to the smart meter.
5. **Electric Blanket and Waterbed:** Avoid use of electric blankets and waterbeds. If you need to use an electric blanket, unplug it after it has warmed the bed. This eliminates the electric and magnetic fields generated by these blankets.
6. **Turn Bedroom Power Off:** Consider turning off the power (at the electrical panel) to your bedroom while you sleep.

## Websites

[www.ehtrust.org](http://www.ehtrust.org)

[www.emsafteyalliance.org](http://www.emsafteyalliance.org)

[www.emfscientist.org](http://www.emfscientist.org)

[www.saferemr.com](http://www.saferemr.com)

[www.magdahavas.com](http://www.magdahavas.com)

[www.lessemf.com](http://www.lessemf.com)

[www.slt.co](http://www.slt.co)

## Electromagnetic Hygiene

The Missing Link to Vibrant Health

