

# Electrosmog

## Low frequency magnetic and electric fields

- Electric household appliances (Razors, hairdryers, etc)
- Fluorescent lighting (separates + and – wiring)
- Lamp or alarm-clock on nightstand (if plug the wrong way and ungrounded)
- Electric wiring in home
- Near-by powerline
- Laptop computer
- Wrist watch
- Switched-off cell phone in pocket

## known biomedical effects:

- decreases pineal function with decreased melatonin production (insomnia, lowered immune status)
- opens blood brain barrier
- Autism and other neuro-developmental disorders in exposed infants
- increased leukemia and cancer rates
- brain fog, fatigue, short term memory loss
- synergistic effect with all other types of radiation

# Electrosmog

## **Pulsed EMF with sharp pulse rise (10- 100 Hz)**

- DECT system (and others) of cordless phones
- Radar from near-by airport
- Alarm system in homes

### **known biomedical effects:**

- disturbs all known intrinsic rhythms (EEG, heart rate variability, breathing pattern, 24 hr meridian activity, bowel movements, detoxification, etc),
- blocks blood-brain and gut barrier (leaky gut syndrome) in stuck-open position leading to neurological illness (Parkinson, MS and ALS, autism,etc.), food and environmental allergies
- synergistic effect with other fields, increases mold growth and mycotoxin production in homes
- Lowered immune status (decreased IL-10, increased IL-1, IL-6, decreased NK cell activity)

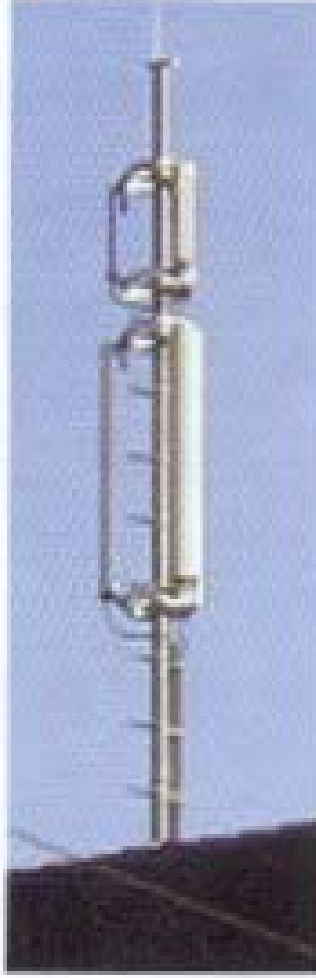
# Electrosmog squared: Microwave

- Cell phone radiation from base station (affects blood brain barrier in 1.6 mile radius)
- Wireless internet, WLAN, etc.
- Blue Tooth technology
- Some home alarm systems

known biomedical effects:

- increases cancer rate 3 fold in 10 years after cell phone radiation is brought into a community - after a 5 year incubation period
- severe EEG, HRV and EKG changes
- delayed and disturbed brain development in infants
- decreased melatonin and hormone production (testosterone)
- open blood brain barrier with increased toxicity, affects endothelial cells in gut mucosa and endothelium (dysfunctional)
- responsible for illness and death of trees
- Increases growth, neurotoxin production, virulence of viruses, mold, yeast, Lyme spirochetes and other microorganisms

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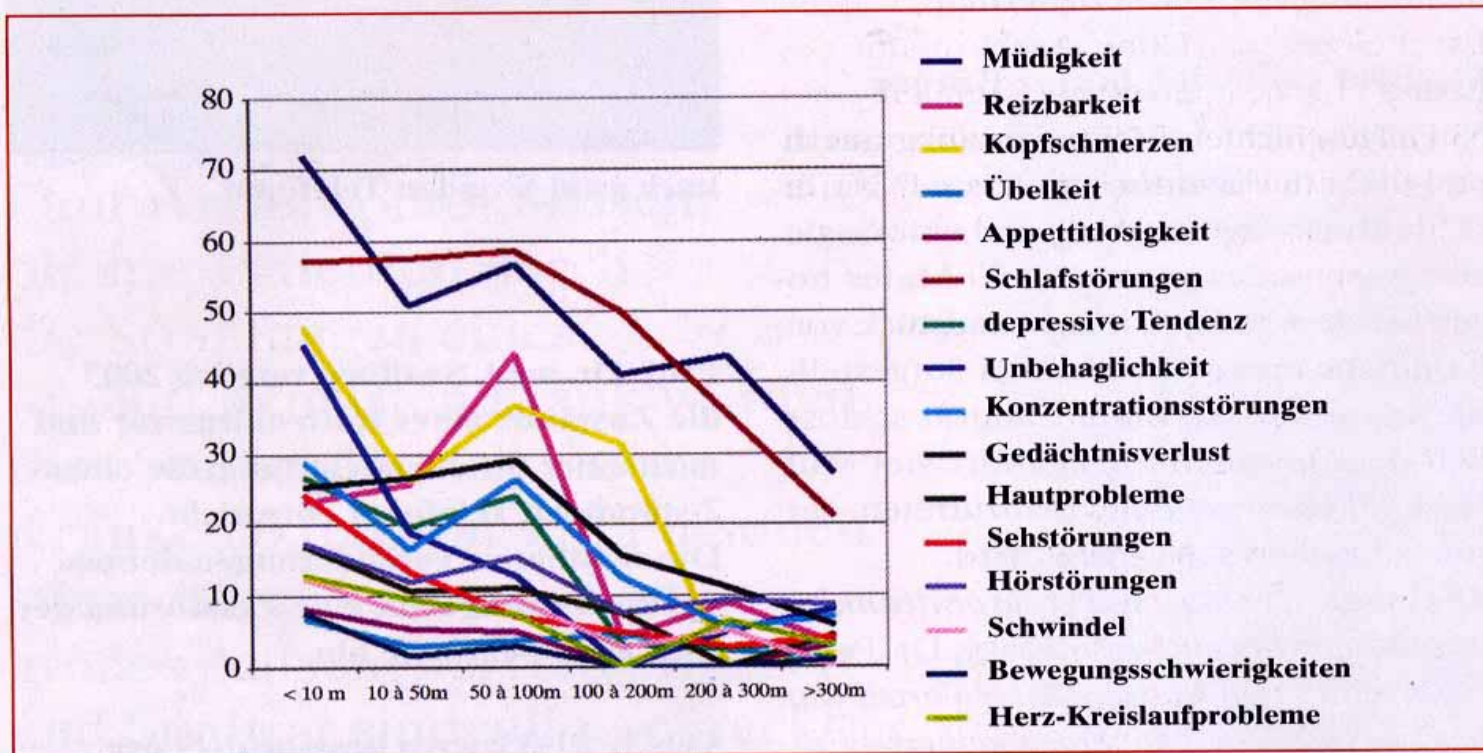
# Electrosmog



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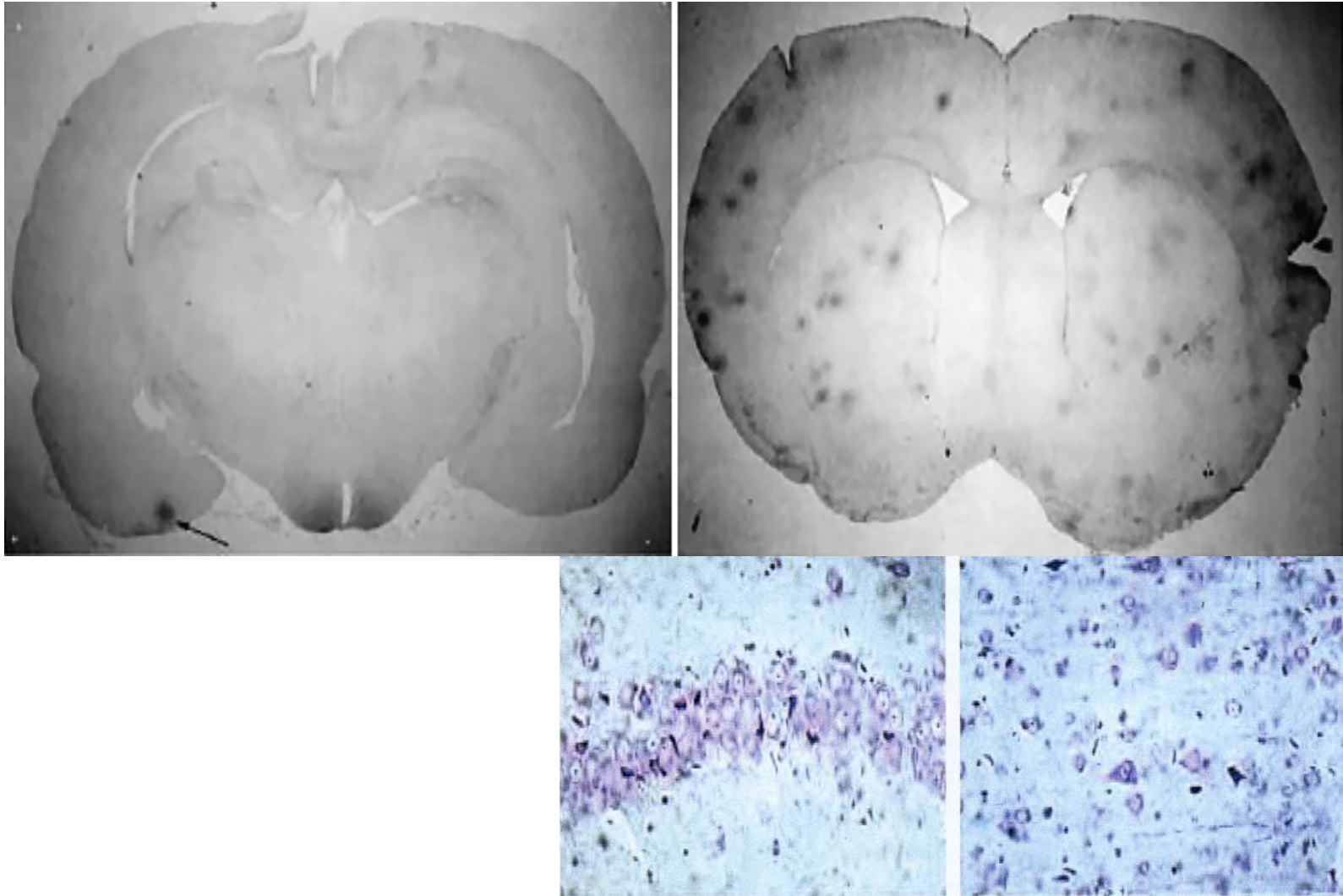


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**Dr. R. Santini untersuchte 1999 den Zusammenhang zwischen dem Auftreten bestimmter Krankheiten und der Nähe zu Mobilfunk-Basisstationen in Frankreich. Anhand einer Befragung von 530 Personen kam er zu dem Ergebnis, dass sich innerhalb einer 300 m Zone folgende Symptome häufen: Müdigkeit, Schlafstörungen, Reizbarkeit, Kopfschmerzen, Gedächtnisverlust, Konzentrationschwierigkeiten etc.**

# Salford 2003: Ratbrain, 50 days post 2-hour exposure to cellphone



*Bild 2a: bestrahlt*

*Bild 2b: bestrahlt*

*Hirnschäden bei Ratten durch Handystrahlung.<sup>72</sup> Die blaue Bildgruppe zeigt zwei stark vergrößerte, mikroskopische Hirnaufnahmen von zweistündig bestrahlten Ratten.*

# Electrosmog

- **Mobile phone** radiation decreases pre-bedtime **melatonin** level  
Int J Radiat Biol. 2006 Feb;82(2):69-76
- Serum **melatonin** in rats decreased by **electric field** exposure  
Bioelectromagnetics. 1994;15(5):427-37
- **Melatonin prevents DNA damage** in rats induced by 60 Hz magnetic fields  
J Pineal Res. 1997 Apr; 22(3):152-62
- Sener, G.et al: "**Melatonin protects against mercury** induced oxidative tissue damage".  
*Basic and Clinical Pharmacology&Toxicology* Vol 93, Dec 2003, pp 290-296
- **Melatonin reverses oxidative damage** in the kidney induced in rats by electromagnetic radiation emitted from cell phones  
Arch Med Res. 2005 Jul-Aug;36(4):350-5
- Significant association found between **childhood leukemia** and magnetic field exposure during the night  
Int J Cancer. 2001 Mar 1;91(5):728-35

# Electrosmog

- ***EMF exposure in rats leads to decreased testosterone production***  
Saudi Med J. 2005 Mar;26(3):405-10
- ***Mobile phone radiation decreases TSH, T3, T4 in rats***  
Toxicol Lett. 2005 Jul 4;157(3):257-262
- ***Increased risk of senile dementia and motor neuron diseases (ALS) may be associated with an above average level of electromagnetic field exposure***  
Epidemiology. 2000 Sep;11(5):539-43
- ***Residential magnetic field exposure greatly increases risk of breast cancer in women under the age of 50 who have receptors sensitive to estrogen***  
Epidemiology. 1998 Jul;9(4):392-7
- **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. 2002 May;70(2-3):120-129

# Electrosmog

Biochem J. 2007 Apr 25

**Mechanism of a short-term ERK activation by electromagnetic fields at mobile phone frequency**

[Friedman J](#), [Kraus S](#), [Hauptman Y](#), [Schiff Y](#), [Seger R](#).

The exposure to non-thermal microwave electromagnetic field generated by mobile phones **affects the expression of many proteins**

This **effect on** transcription and protein stability can be mediated by the mitogen-activated protein kinase (MAPK) cascades, which serve as **central signaling pathways**, and govern essentially all stimulated cellular processes. Indeed, a long-term exposure of cells to mobile phone irradiation results in the activation of p38MAPKs as well as the ERK/MAPKs. Here we studied the immediate effect of irradiation on the MAPK cascades, and found that ERKs, but not stress related MAPKs are rapidly activated in response to various frequencies and intensities. Using signaling inhibitors we delineated the mechanism that is involved in this activation. We found that the first step is mediated in the plasma membrane by NADH oxidase, which rapidly generates reactive oxygen species (ROS). These ROS then directly stimulate matrix metalloproteinases and allow them to cleave and release heparin binding-EGF. This secreted factor, activates EGF receptor, which in turn further activates the ERK cascade. Thus, this study demonstrates for the first time a detailed molecular mechanism by which electromagnetic irradiation by mobile phones induces the activation of the ERK cascade and thereby induces transcription and other cellular processes.

# Electrosmog Diagnosis

- Appropriate electronic instruments (very objective, but cannot predict the biological effect on the particular individual)
- 2. Radiaesthesia (very subjective, only 2-8 of hundred practitioners accurate)
- 3. ART (autonomic response testing) (very reliable in the hands of well trained practitioners)
- 4. Heart Rate Variability (measures accurately the biological effect of the field in this particular location on this particular organism)

# Electrosmog Therapy

Your system is by the factor of hundreds of times more sensitive during sleep.

Most suggestions are based on this simple fact

- shut off all fuses at night. Buy a flashlight. Better: have a “demand switch” installed by knowledgeable electrician (rare to find). Move children’s bed away from wall (3 feet)
- Get rid of cordless phones at home and get chorded phone (Radio Shack)
- Use PC rather than laptop whenever possible. Have “box” as far away from chair as possible (best: outside, since computers outgas Beryllium, mercury, lead and PBDEs)
- No wireless internet at home or in office
- Use metallized grounding sheet under regular bed sheet with ground wire either in earth (best) or attached to metal-waterpipe (not the ground in electric outlet, since most often 60Hz flicker on it) BiopureUS@aol.com
- In most cases: install metallized mosquito net (shield) to deflect incoming microwave. In office, or if possible at home: use metallized paint or conductive Silica-paint on walls
- Have experienced ART practitioner or Building-Biology expert check home for geopathic radiation and move bed location or work-site accordingly
- If you are chronically unwell or have a diagnosed medical illness and you have not responded to treatment, assume that electrosmog is keeping you from getting well. Fix it!

# Electrosmog Therapy

- If you do not absolutely have to use a cell phone, get rid of it. Making monthly payments drives the industry and leads to the instillation of more broadcasting panels in your neighborhood
- If you continue using a cell phone, get ear piece with air conduction
- Absolutely metal free mattress and bed-frame
- Un-clutter the bedroom
- Use melatonin at bedtime (best: sublingual)
- No wrist watch, no metal jewelry, no metal zippers or belt buckles
- Avoid living in apartments (neighbor above, below or next door may have wireless or cordless phone) or working in office buildings
- 10 minute earth-hole meditation at end of workday
- Avoid new cars (phthalates, EMF pollution)
- Metal free dentistry
- Work a life-long metal detox program
- Avoid electrical appliances (hair dryer, electric razor, computer)
- Spend less time on computer. Get a life!
- Follow **all** these recommendations and teach them to your children, parents and friends