





Electromagnetic fields

Proposed intensity guidelines for long term exposures¹

Description	Ideal	Weak	Strong	Extreme
Electric fields 60Hz AC				
 Volts/metre V/m	< 1 V/m	1 - 5	5 - 50	> 50
Body Voltage milli Volts mV	< 10 mV	10 - 100	100-1000	> 1000
Magnetic fields 60 Hz AC				
 microTesla μT	< 0.02 μT	0.02 - 0.1	0.1 - 0.5	> 0.5
nanoTesla nT	< 20 nT	20 - 100	100 - 500	> 500
milli Gauss mG	< 0.2 mG	0.2 - 1	1 - 5	> 5
Electromagnetic fields Radio & Microwaves				
 microwatts/m ² $\mu W/m^2$	< 0.1 $\mu W/m^2$	0.1 - 10	10 - 1000	> 1000
 European Council Inside Exposure :	< 100 $\mu W/m^2$			
Outside Exposure :	< 1000 $\mu W/m^2$			

< = Smaller than



> = Greater than

¹Source: SMB 2008 Copyright © 2008- **BAUBIOLOGIE MAES**, Schorlemerstr. 87 D-41464 Neuss Tel:02131-43741 www.maes.de
Complies with BioInitiative 2012 recommendations, www.bioinitiative.org

Symptoms guide²

50 / 60 Hz magnetic fields:

- Weakened immune system
- Endocrine disorders
- Accelerated cancer
- Leukemia
- Unrefreshing sleep

50 / 60 Hz electric fields:

- Multiple allergies (and "electrosensitivity")
- Skin disorders
- Nervous system disorders
- Decrease in lymphocytes

Radiofrequency & microwave:

- Mental disorientation
- Speech difficulties
- Reflex and reaction-time alterations
- Neurovegetative disturbances
- Accelerated visual loss and cataracts

Should you note such symptoms and cannot find a plausible cause-effect relationship for the individual involved, consider the possibility of an electromagnetic origin. A proper electromagnetic survey may confirm the source of the difficulty by matching lifestyle with exposure conditions. Sometimes the dealing with the electromagnetic source(s) may remove symptom.

² Source: Planetary Association for Clean Energy, Inc.



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International Electromagnetic Field Suggested Exposure Guidelines*

* Baubiologie Guidelines for Sleeping Areas, 2003	Ideal	Weak	Strong	Extreme	
AC Electric Field in Volts/meter (V/m)					
Baubiologie	< 1	1 - 5	5 - 50	> 50	
- Canada - ACGIH (2003) General Public				25,000	
- World Health Organization WHO/ICNIRP				4,170	
- MPR Sweden			25		
- TCO Sweden			10		
- US Congress recommendation in 1996			10		
Baubiologie Body Voltage in milli Volts mV	< 10	10 - 100	100 - 1,000	> 1,000	
- Human nerve stimulation starting at		15 mV			
- Natural background	< 0.0001				
AC Magnetic Fields in nanoTesla (nT) or milli Gauss (mG)					
Baubiologie	nT mG	< 20 < 0.2	20 - 100 0.2 - 1	100 - 500 1 - 5	> 500 > 5
- Canada - ICNIRP - WHO General Public				83,000 nT	
- Canada - ICNIRP Occupational				419,700 nT	
- MPR Sweden			250 nT		
- TCO Sweden			200 nT		
- US Congress recommendation in 1996			200 nT		
- Germany DIN/VDE 0107 (EEG)			200 nT		
- Switzerland: (long term occupational)				1,000 nT	
- WHO/IARC (2001) are considered potentially carcinogenic for humans			300 - 400nT		
- Natural background	<0.0002				
Radio Frequency & Microwaves in microwatts/Sq. meter (μW/m²)					
Baubiologie	pulsed Non pulsed	< 0.1 < 1	0.1 - 5 1 - 50	5 - 100 50 - 1000	> 100 > 1,000
- Canada - Safety Code 6 (2012)				6,000,000 to 10,000,000	
- WHO/ICNIRP				95,000	
- Germany: DIN/VDE 0848 occupational and general public BImSchV				25,000,000 to 100,000,000	
- WHO/IRPA depending on frequency				2,000,000 to 10,000,000	
- Salzburg Resolution, MD Association, EEG changes				(Pulsed) 1,000	
- European Parliament STOA				100	
- USA: ANSI/IEE depending on frequency				6,000,000 to 12,000,000	
- Cell phone functions at		< 0.001			
- Natural background		< 0.000,001			

ACGIH = American Conference of Governmental Industrial Hygienists
 IRPA/INIRC = International Commission on Non-Ionizing Radiation Protection
 TCO = Swedish Confederation of Professional Employees MPR = Swedish Board for Technical Accreditation
 NCRP = National Council of Radiation Protection and Measurements WHO = World Health Organization

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