

Electromagnetic Field (EMF) and Device Sensitivity: Population Prevalence Statistics

General EMF Sensitivity (Electromagnetic Hypersensitivity - EHS)

The prevalence of people reporting sensitivity to electromagnetic fields varies significantly across countries and studies, ranging from **0.7% to 13.3%** of the population. This wide variation reflects differences in study methodologies, diagnostic criteria, and cultural factors. [1] [2] [3]

Key Prevalence Data by Country:

Country	Prevalence Range	Notable Findings
Germany	7.2-10.3% [2] [3]	Highest reported rates globally
Taiwan	13.3% ^[2]	Single highest country rate
Switzerland	5.0-8.6% ^[2]	Varied by study year
Netherlands	3.5-7.0% ^[2]	Consistent with European averages
United Kingdom	4.0-5.0% ^[2]	~435,500 people affected nationally
Austria	3.5% [4]	Mid-range prevalence
California, USA	3.2% [4]	Based on 2,072-person telephone survey
Sweden	1.5-2.7% [1] [2]	Temporal variation in studies
Japan	1.2 % ^[2]	Lower Asian population rates
Finland	0.7% [2]	Lowest reported rates

The average prevalence across studies is approximately 5.1%, with most estimates falling between 3-5% of the general population for mild to moderate cases. Severe cases requiring work accommodations affect an estimated **0.65%** of the population. [5] [2] [3] [6] [1]

WiFi-Specific Sensitivity

WiFi sensitivity is typically included within general EMF hypersensitivity statistics rather than being measured separately. Key findings include: [7] [8]

- WiFi devices contribute **6-13**% to total electromagnetic field exposure in environments like schools [7]
- Most scientific studies show no consistent evidence linking WiFi exposure to health effects in controlled conditions [9] [10] [11]
- WiFi exposure levels are typically thousands of times below international safety guidelines [10]

• Double-blind provocation studies have found that people claiming WiFi sensitivity cannot reliably detect when WiFi signals are present versus absent [8]

The prevalence of people specifically attributing symptoms to WiFi is generally considered part of the overall EMF/EHS population, estimated at **3-5%** of the general population. [12] [13]

60 Hz Power Line Frequency Sensitivity

Specific prevalence data for 60 Hz power line frequency sensitivity is limited, as most studies group this with general electromagnetic hypersensitivity. Key research findings include:

- No specific prevalence statistics are available for 60 Hz sensitivity alone [14] [15] [16]
- Controlled studies have found **no physiological effects** from 60 Hz magnetic field exposure at typical environmental levels (12.5 μ T) [15] [16]
- Epidemiological studies suggest potential associations with childhood leukemia, but these affect a very small population subset approximately **0.8**% of homes have magnetic field exposures above $0.4~\mu T^{[17]}$
- Most 60 Hz sensitivity reports are included in the general EMF hypersensitivity prevalence of 3-5% [2] [1]

Smartphone-Related Issues

While not technically "electromagnetic sensitivity," smartphone-related health concerns affect much larger portions of the population:

Smartphone Dependency and Addiction:

- 74.3% of smartphone users report feeling dependent on their device [18]
- 95% of American adults currently use cell phones [19]
- Over 75% of Americans admit to being addicted to their phones [20]
- 47% say they couldn't live without their smartphone [20]

Physical Symptoms from Smartphone Use:

- 25.9% experience wrist and hand pain from smartphone use [18]
- 34.5% report neck or back pain while using smartphones [18]
- **53.8%** experience ear discomfort [18]
- Various studies report fatigue, sleep disturbances, and psychological effects in significant portions of users [18]

Scientific Consensus and Limitations

Important considerations regarding these statistics:

1. **Diagnostic Challenges**: No standardized medical criteria exist for diagnosing electromagnetic hypersensitivity [1] [5]

- 2. **Placebo Effects**: Double-blind studies consistently show that people claiming EMF sensitivity cannot reliably detect electromagnetic field exposure [4] [8] [1]
- 3. **Nocebo Effects**: Symptoms often correlate with perceived rather than actual exposure levels [8] [1]
- 4. **Methodological Variations**: Different studies use varying exposure assessments and symptom criteria, contributing to wide prevalence ranges [2] [1]
- 5. **Self-Reported Nature**: Most prevalence data relies on self-reported sensitivity rather than objective medical diagnosis [5] [2]

The World Health Organization uses the neutral term "Idiopathic Environmental Intolerance attributed to EMF" (IEI-EMF) because scientific evidence has not established a causal link between electromagnetic field exposure and reported symptoms. [21] [8]



- 1. https://pmc.ncbi.nlm.nih.gov/articles/PMC7201940/
- 2. https://pmc.ncbi.nlm.nih.gov/articles/PMC7139347/
- 3. https://www.sciencedirect.com/science/article/pii/S0013935122007010
- 4. https://pmc.ncbi.nlm.nih.gov/articles/PMC1241215/
- 5. https://pmc.ncbi.nlm.nih.gov/articles/PMC10286323/
- 6. https://mdsafetech.org/wp-content/uploads/2019/10/2018-prevalence-of-electromagnetic-sensitivity.p
- 7. https://pmc.ncbi.nlm.nih.gov/articles/PMC9287836/
- 8. https://www.eurekahealth.com/resources/why-do-i-have-electromagnetic-sensitivity-en
- 9. https://en.wikipedia.org/wiki/Wireless_device_radiation_and_health
- 10. https://www.who.int/teams/environment-climate-change-and-health/radiation-and-health/non-ionizing/wireless
- 11. https://www.vumc.org/safety/sites/vumc.org.safety/files/public_files/osha/wifi-safety.pdf
- 12. https://www.webmd.com/a-to-z-guides/electromagnetic-hypersensitivity
- 13. https://www.vice.com/en/article/the-people-who-claim-theyre-allergic-to-wifi/
- 14. https://pubmed.ncbi.nlm.nih.gov/9216613/
- 15. https://onlinelibrary.wiley.com/doi/abs/10.1002/bem.20711
- 16. https://pmc.ncbi.nlm.nih.gov/articles/PMC3681577/
- 17. https://www.nrc.gov/docs/ML1126/ML112660019.pdf
- 18. https://pmc.ncbi.nlm.nih.gov/articles/PMC5680647/
- 19. https://ntp.niehs.nih.gov/research/topics/cellphones
- 20. https://www.urbanrecovery.com/blog/addiction-to-cell-phone-statistics
- 21. https://www.who.int/teams/environment-climate-change-and-health/radiation-and-health/non-ionizing/hypersensitivity