

Overview

- Wireless Hearing Aids can cause serious ill health.
- Almost all break the international biological safety guidelines for this radiation.
- About 4% of people suffer immediate ill health from this radiation.
- Up to 80% of people suffer subconscious ill health from this radiation.
- These people should avoid radiation from Wireless Hearing Aids.

Many Hearing Aids are now Wireless, with radiofrequency electromagnetic Radiation. Older, traditional hearing aids operated without radiation.

Some Hearing Aids have Bluetooth which can be turned off. Choose a brand where the wireless Bluetooth radiation can be switched off (*e.g.* by pressing a button for 17 seconds).

Wireless Hearing Aids typically use Bluetooth radiation, a 2B human carcinogen:

- Bluetooth uses pulsed radio frequency radiation at typically 2.4 GHz frequency.
- This and similar radiation at low levels can breach the Blood-Brain Barrier and cause cardiovascular and neurological damage.
- This radiation is classified as a 2B possible human carcinogen (cancer agent) by the World Health Organization's IARC.
- Leading experts now state that it should now be considered a class 1 certain cancer agent. A \$30 million study by the USA National Toxicology Programme on animals reported in 2018 that there is 'clear evidence' of it causing cancer.

Some other Wireless Hearing Aids operate at 10.6 MHz, with a band width of 300 kHz.

Typical conscious symptoms caused by using Wireless Hearing Aids:

- Confusion
- Dizziness
- Headaches
- Memory loss
- Migraines
- Nosebleeds

These symptoms of intolerance to radio frequency radiation were first described in 1932.

Similar symptoms are caused by Wifi, mobile and cordless phones, smart meters, radar and 5G. About 4% of people report suffering immediate conscious ill health from RF EMF.

Typical subconscious long-term symptoms caused by RF EMF:

- Cancers
- Cardiovascular effects
- EMF Syndrome
- Infertility
- Neurological illness

Surveys show that up to 80% of people suffer subconscious ill health from RF EMF.

- "My migraine was so severe I ended up in hospital. I took out my hearing aids and I felt better. When I put them back, in 10 minutes the headache started again. I then pulled them out and the headache calmed."
- "For the last 3 days I've had migraine headaches. I removed my hearing aids and my head feels better."
- "I haven't worn my hearing aids for a month. My head hurts when I wear my hearing aids."
- "My headaches were so bad. My head is throbbing. I am sick in the stomach. But when I take out the hearing aids, the headache eases off but doesn't go away until the next day after some sleep."
- "I noticed when I went without hearing aids for 2 months I did not get a single headache. When I put them on again the headaches came back."
- "I am sick of the overwhelming headaches from my hearing aids. They feel like a brick sitting in my head."

Safety Guidelines:

- Safety guidelines for wireless radiation need to prevent established long-term and non-thermal harmful effects, as well as short-term and heating effects.
- People vary in their conscious and subconscious sensitivity to wireless radiation, as they do in effects from other electromagnetic radiation, e.g. sunburn from sunlight.

		Natural Levels	Biological Safety Guidelines		Typical Wireless Hearing Aid	Heating Guidelines
			Long-term (over 6 or 30 minutes)			Short-term (up to 6 or 30 minutes)
			All effects: low-level, biological and heating effects			
			Children, Fetus, Elderly, ES etc.	Rest of population		All
Volts per metre	V/m	0.00002	<0.02 (I)	0.2 (I)		61 (ICNIRP)
*microWatts per metre squared	µW/m ²	0.000001	3 (B) 1 (E)	100 (E) 6 (B)	23,000	9,200,000 (ICNIRP)
*Watts per kilogram (Specific Absorption Rate)	W/kg (SAR)	<0.00002	0.0003 (S)		From: 0.0014 Typically: 0.23	1.6 (USA) 2.0 (EU)

*heating metric (B): [Bioinitiative 2012](#) (E): [EUROPAEM 2016](#) (ICNIRP): [ICNIRP 2020](#)
(I): [IGNIR 2018](#) (S): [Seletun 2009](#)

- ICNIRP 2020 guidelines are still based on Schwan’s mistake of 1953, that the only adverse effect is a bodily temperature rise of 1° in 6 or 30 minutes. This can occur during exercise, but without the cancers and neurological and cardiovascular harm from wireless radiation.
- The ICNIRP heating guidelines were voted as obsolete by the European Parliament in 2009.
 - NHS: <https://www.nhs.uk/live-well/healthy-body/hearing-aids/> NHS hearing aids are supplied through local Clinical Commissioning Groups. One stated in Feb. 2019 that it did not supply hearing aids with Bluetooth.
 - [Select Studies on ES, EHS and EPh](#)

SOME STUDIES ON AUDIOLOGICAL HARM FROM WIRELESS RADIATION

- Das S et al.: “A study on the effect of prolonged mobile phone use on pure tone audiometry thresholds of medical students of Sikkim” *J Postgrad Med.* (2017) [PMID: 28272071](#), [PMC5664865](#).
- Frey AH: “Human auditory system response to modulated electromagnetic energy” *J Appl Physiol.* (1962) [PMID: 13895081](#).
- Hamlet WR et al.: “Interplay between low threshold voltage-gated K(+) channels and synaptic inhibition in neurons of the chicken nucleus laminaris along its frequency axis” *Front Neural Circuits.* (2014) [PMC4033047](#).
- Kumar G et al.: “Mobile phone users and its effect of hearing in terms of distortion product otoacoustic emission (DPOAE)” *J Evol Med Dental Sciences.* (2018) [Abstract](#).
- Landgrebe M et al.: “Association of tinnitus and electromagnetic hypersensitivity: hints for a shared pathophysiology?” *PLoS One.* (2009) [PMID: 19325894](#), [PMC2657824](#).
- Medeiros LN et al.: “Tinnitus and cell phones: the role of electromagnetic radiofrequency radiation” *Braz J Otorhinolaryngol.* (2016) [PMID: 26602000](#), [Article](#).
- Özgür A et al.: “Effects of chronic exposure to electromagnetic waves on the auditory system” *Acta Otolaryngol.* (2015) [PMID: 25836770](#).
- Panda NK et al.: “Audiologic disturbances in long-term mobile phone users” *J Otolaryngol Head Neck Surg.* (2010) [PMID: 20122338](#).
- Seckin E et al.: “The effect of radiofrequency radiation generated by a Global System for Mobile Communications source on cochlear development in a rat model” *J Laryngol Otol.* (2014) [PMID: 24784924](#).
- Sudan M et al.: “Cell phone exposures and hearing loss in children in the Danish National Birth Cohort” *Paediatr Perinat Epidemiol.* (2013) [PMID: 23574412](#), [PMC3625978](#).
- Velayutham P et al.: “High-frequency hearing loss among mobile phone users” *Indian J Otolaryngol Head Neck Surg.* (2014) [PMID: 24533378](#), [PMC3918279](#).