

At what intensity of exposure have biological/health effects been reported?

Human studies (8 publications)

Effects reported: headache, loss of attention and memory, change in immune functions, 'wellbeing', increase cancer incidence.

**Average intensity = $2.8 \mu\text{W}/\text{cm}^2$
(median = $0.5 \mu\text{W}/\text{cm}^2$; range = $0.005 - 10 \mu\text{W}/\text{cm}^2$)**

Non-human studies (13 publications) (rabbit, mouse, fly, tomato, plants)

Effects reported: change in immune functions, oxidative stress, lipid and DNA damages, reproduction, tumor growth, gene expression, metabolism.

**Average intensity = $8.1 \mu\text{W}/\text{cm}^2$
(median = $5 \mu\text{W}/\text{cm}^2$; range = $0.168 - 52 \mu\text{W}/\text{cm}^2$)**

A list of radiofrequency radiation measurements reported in various countries.

Amoako et al. (2009)- Ghana- 900-1800 MHz- **0.001 $\mu\text{W}/\text{cm}^2$**

Dhami (2011)- India-10 MHz-8 GHz- **1.148 $\mu\text{W}/\text{cm}^2$**

Dode et al. (2011)- Brazil- cell tower- **0.04 - 40.78 $\mu\text{W}/\text{cm}^2$**

Firlarer et al. (2003)- Turkey- GSM900 MHz - **3 $\mu\text{W}/\text{cm}^2$**

Frei et al. (2009)- Switzerland- 12 different bands from FM (88 MHz- 108 MHz) to W-LAN (2.4-2.5 GHz) - **0.013 $\mu\text{W}/\text{cm}^2$**

Henderson et al. (2006)- Australia- 870-1200 MHz- **0.8 $\mu\text{W}/\text{cm}^2$**

Joseph et al. (2008)- Belgium – FM, GSM900, GSM1800 and UMTS- **0.07 $\mu\text{W}/\text{cm}^2$**

Kim & Park (2010)- Korea- CDMA800 and CDMA1800- **0.6 $\mu\text{W}/\text{cm}^2$**

Lahham & Hammash (2012)- West Bank Palestine- FM radio, TV, base station- **3.86 $\mu\text{W}/\text{cm}^2$**

Sirav & Seyhan (2009)- Turkey- TV and radio- **0.314 $\mu\text{W}/\text{cm}^2$**

Thuroczy et al. (2006)- Hungary- 9 bands between 80-2200 MHz- **0.025 $\mu\text{W}/\text{cm}^2$**

Viel et al. (2009)- France- 12 bands: FM to mobile phone- **0.6 $\mu\text{W}/\text{cm}^2$**