

Cell Phone Radiation

50%

of radiation from your cell phone can be absorbed into the head and body.



* In the United States, the Federal Communication Commission (FCC) limit for public exposure from cell phones is a body/torso SAR level of 1.6 watts per kilogram (1.6 W/kg), averaged over 1 gram of tissue and an extremities level of 4.0 W/kg averaged over 10 grams. The EU SAR limits always average over 10 grams of tissue.

Specific Absorption Rate (SAR)

SAR is a measure of the rate at which microwave radio frequency radiation (RFR) from wireless devices is absorbed by head and body tissue when held near the body. SAR values use units of watts per kilogram.

SAR LIMITS*



UNITED STATES:
1.6 W/kg: for head, torso arms and legs
4.0 W/kg: for ears, wrist, hands, ankles, feet



EUROPEAN UNION:
2.0 W/kg: for head and trunk

“Carry iPhone at least 10 mm away from your body.”

— Apple iPhone 5



Cell Phones are tested at a distance from the body.

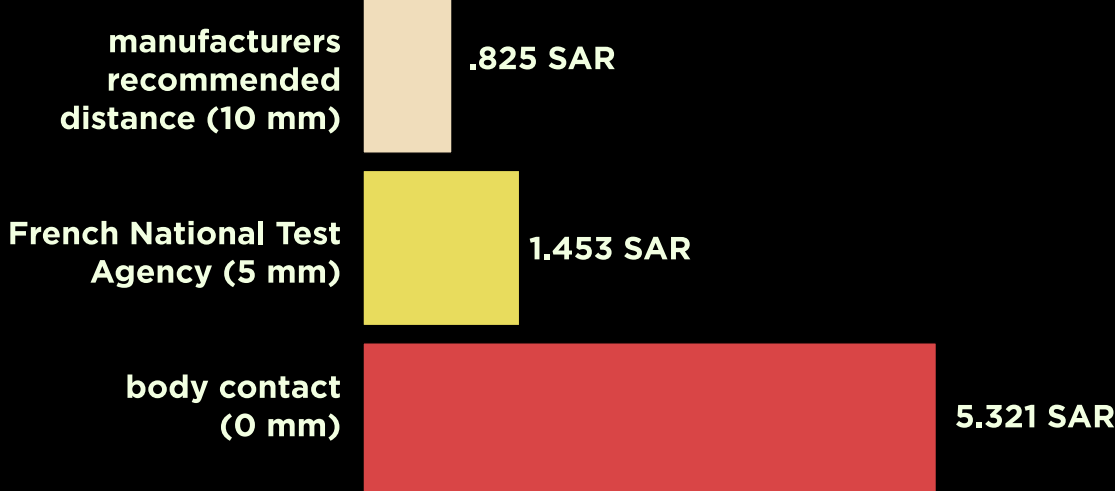
When phones come on the market SAR tests use a distance between the phone and body. Phones are not tested in body contact positions. All phones instruct us to keep a distance.

9 out of 10

phones tested by France in 2015 exceeded European limits (SAR = 2.0 W/kg) when tested next to the body.

The French National Test Agency (ANFR) tested radiation emissions of over 442 cell phones at three different distances from body (at 10 mm, 5 mm and 0 mm).

Apple iPhone 5 SAR Measurements (ANFR)



ANFR Cell Phone Tests #Phonegate

Near Field Radiation vs. Far Field Radiation

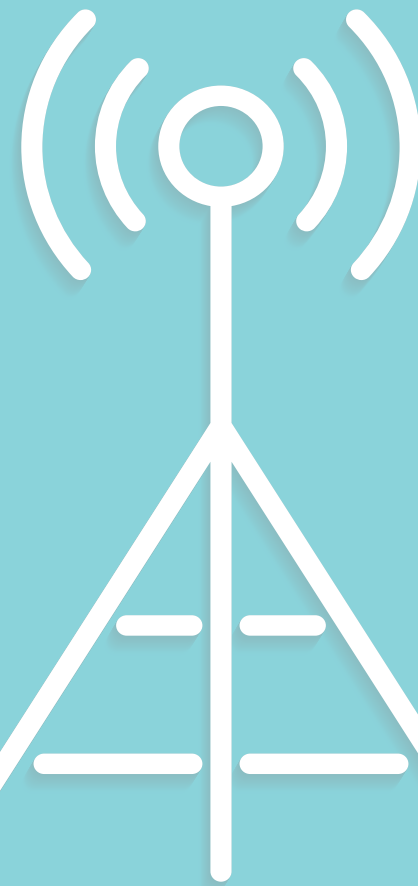
Near Field refers to exposures from devices held close to the body.

Far Field refers to exposures from antennas at a distance from the body.

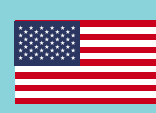


Cancer Risk

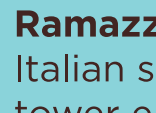
In 2011 the World Health Organization classified cell phone radiation as “possibly carcinogenic to humans,” in the same category as lead, engine exhaust and chloroform.



New science since 2011 indicates that cell phones can cause cancer.



National Toxicology Program: US government study on cell phone radiation. (2016, 2018)



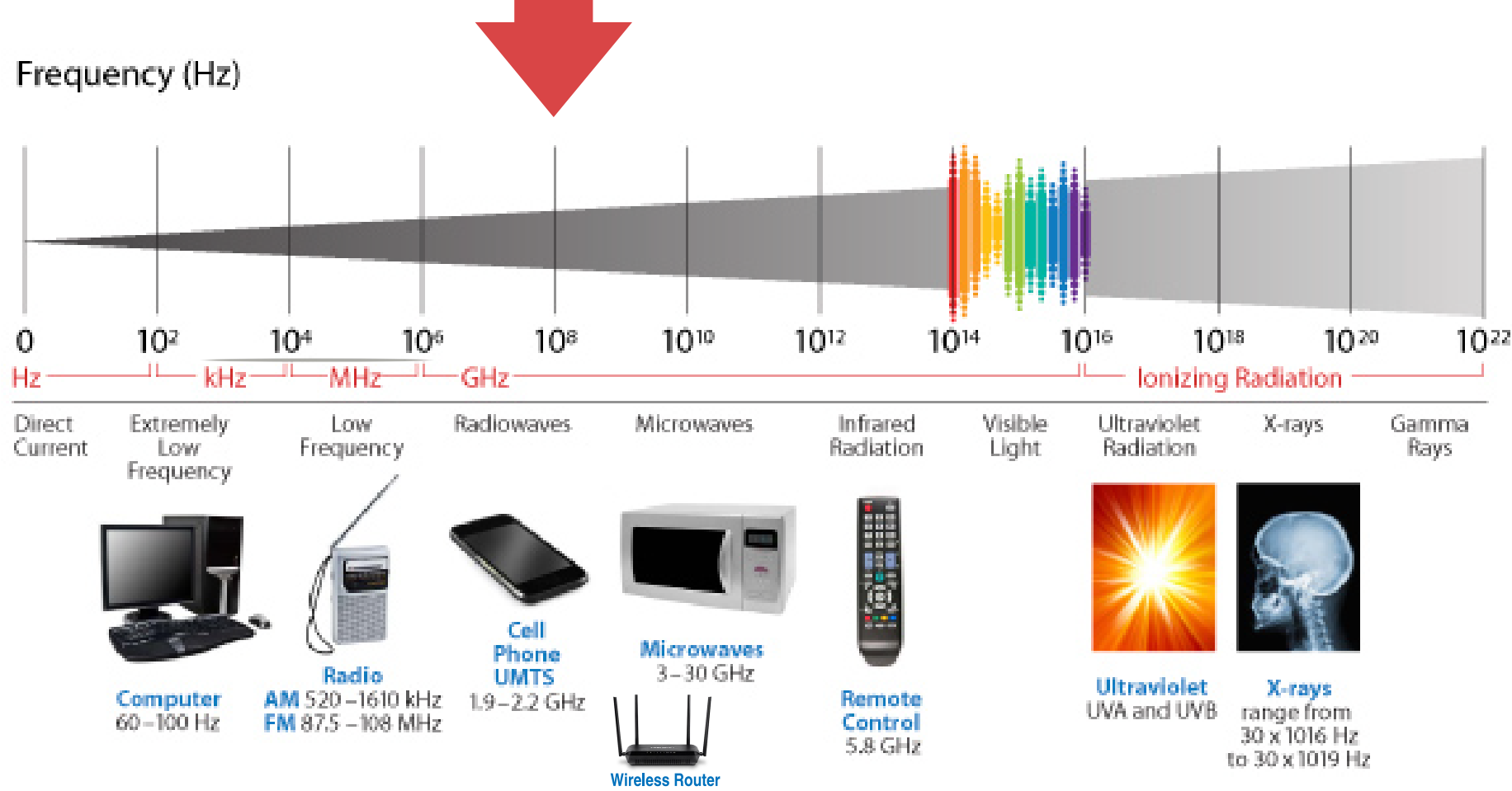
Ramazzini Institute: Italian study on cell tower emissions. (2018)



Jacobs University: Replication study that found RF acts as a “tumor promoter.” (2014)

Cell Phone Radiation and the Electromagnetic Spectrum

Radiation from cell phones and Wi-Fi devices is microwave radiofrequency radiation (RFR) covering 30 kHz to 300 GHz.



Source: <https://www.niehs.nih.gov/health/topics/agents/emf/index.cfm>

Cell phones and wireless devices emit radiation continuously as long as they are powered on.

Radio Frequency Radiation (Wireless Communication)

Cell phones emit radiofrequency radiation when communicating with cell towers. Other devices that expose people to the same types of radiation include computers, tablets, baby monitors, virtual assistants, routers, gaming consoles, cordless phones and any other wireless transmitting device that uses Wi-Fi or Bluetooth technology.

What Can I Do to Protect Myself?

- Limit time on cell phones
- Use speakerphone or an airtube headset
- Don't carry your cell phone in your pocket or bra
- Don't sleep with your phone
- Prefer texting instead of calling
- Swap out your cordless phone for a corded phone
- Swap out Wi-Fi / wireless accessories for wired
- Educate your elected officials and your community