

Electric and Magnetic Fields (EMF)

What are electric and magnetic fields?

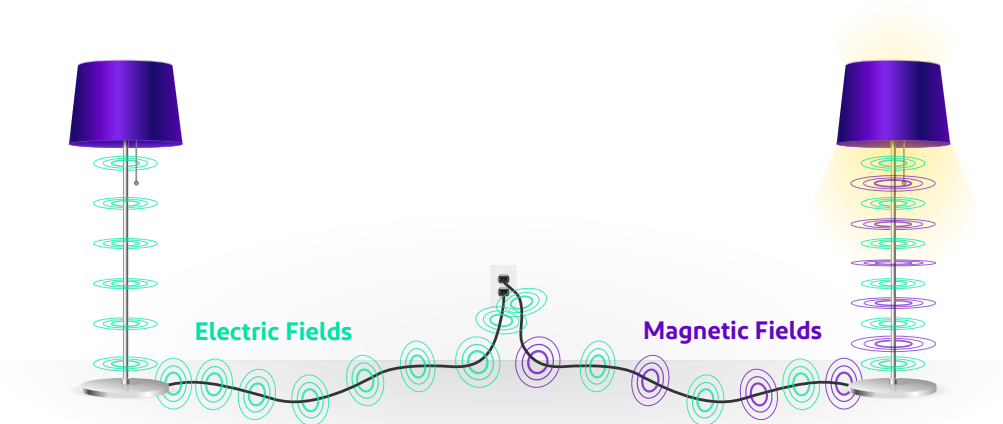
All devices and wires that carry electricity have two types of fields associated: electric fields and magnetic fields. This includes transmission and distribution power lines as well as any common household electronic items, like vacuum cleaners, fans, lamps, televisions, etc.

Electric fields

Electric fields are the result of the voltage, or electrical pressure in the wiring. Electrical field strength increases as voltage increases, but is significantly reduced by objects like bushes, trees, fences or walls. In the household, electric fields are present even when objects are plugged in, but not turned on. Strength of electric fields decreases rapidly with increasing distance from the source.

Magnetic fields

Magnetic fields are produced by the flow of electrical current through wires and objects. Magnetic field strength increases with increased current flowing through the object. Magnetic fields pass through objects more easily than electric fields, but are not present when household objects are turned off. Like electric fields, magnetic field strength decreases rapidly with increased distance.



Is there any research on how EMF affects health?

For decades, scientists around the world have conducted thousands of studies to identify any health effects from EMF exposure. This large body of research includes epidemiological studies, or observational studies of humans, in-vivo studies, or studies on animals in laboratories, and in-vitro studies, or studies of isolated cells and tissues. The studies have been conducted using household electrical sources, power lines, and large machinery in industrial settings.

The findings

This research has been evaluated and reviewed by numerous national and international health, scientific, and governmental organizations, including the World Health Organization, The US National Institute of Environmental Health Sciences, The European Commission's Scientific Committee on Emerging and Newly Identified Health Risks, and The National Cancer Institute. None of these organizations have found any conclusive evidence that EMF exposure causes or contributes to long-term adverse health effects.