

Electric and magnetic fields

Electric and magnetic fields (EMFs) are concepts created by scientists to describe the forces that electrically charged particles exert on each other. EMFs are envisioned as invisible lines of force that surround any electrical device, such as household appliances, or anything that carries electricity, such as home electrical wiring, overhead power lines, and underground cables.

Over the past 20 years, there has been extensive research throughout the world by prominent scientific and health organizations to determine if EMFs may adversely affect human health. Some of these studies have reported a weak association between EMF and adverse health effects; however, none has established a cause and effect link between EMFs and ill health. Further, no studies have demonstrated any mechanism or biological process by which power-line EMFs can actually damage human cells.

While the evidence that EMFs have an adverse effect on human health is weak, the possibility cannot be conclusively ruled out. As part of VT Transco's mission to provide safe and reliable electric power to the citizens of Vermont, we take this issue very seriously. We constantly monitor the state of knowledge in this area, and we encourage high-quality independent research into this issue.

Additional Information

VT Transco advocates open and informed discussion on EMFs and health related issues. To help you find additional information on these topics, you can refer to the web sites listed below. We have selected these web sites because their sponsoring organizations are staffed with experienced doctors, scientists, and subject matter experts who can provide fair and balanced information. If your research takes you to different web sites, it is important that you check their credentials before relying on the information posted on such web sites.

Anybody can post information on a web site or blog, regardless of training or expertise. EMFs are generated by the earth's core, by the appliances and electricity in our homes, and by the distribution and transmission lines outside. EMFs are a part of our electrified society, and taking this into account during the study of EMFs is highly complex and challenging. In short, a reliable EMF study requires significant resources and must be done by qualified and experienced scientists, without bias or hidden agendas.

U.S. Web Sites

American Cancer Society – www.cancer.org

American Medical Association – www.ama-assn.org

Centers for Disease Control/National Institute for Occupational Safety and Health – www.cdc.gov/niosh/topics/emf/

National Cancer Institute – www.cancer.gov

National Institute of Environmental Health Sciences – www.niehs.nih.gov/emfrapid/home.htm

International Web Sites

Australian Radiation Protection and Nuclear Safety Agency – www.arpansa.gov.au

Health Protection Agency – www.hpa.org.uk

International Agency for Research on Cancer (IARC) – www.iarc.fr

International Commission on Non-Ionizing Radiation Protection – www.icnirp.de/pubEMF.htm

National Radiological Protection Board (NRPB) – www.nrbp.org

World Health Organization – www.who.int/peh-emf/project/en/

Other Web Sites

California Department of Health Services – www.dhs.ca.gov/ehib/

The Medical College of Wisconsin – www.mcw.edu/gcrc/cop/powerlines-cancer-FAQ/toc.html

National Grid - www.nationalgridus.com/commitment/d3-3_emfs.asp