

Physical Effects of Electromagnetism.

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Man-made electromagnetic energy is pervasive and familiar in the environment, and its presence gives no obvious hint of hazard. The electromagnetic energy of a typical high-voltage powerline extends 500–1000 feet from the actual line. Consequently, many people live in the actual energy flow of the powerline. Antenna farms are found near every big city in the world. The common presence of the energy in the environment is quite inconsistent with the emerging scientific evidence relating exposure to health problems. Examples of conflicts between scientific fact and commercial practices have developed. About 61 homeowners along a 345,000-volt powerline through upstate New York have sued the New York Power Company for compensation because of the presence of the health risk. In this case three prominent NCI scientists, for fees up to \$70,000, testified that powerlines are safe. Many high-voltage powerlines are located directly adjacent to schools because power companies donated the land to school boards. The powerlines commonly produce magnetic fields of 3–15 milligauss throughout the schools; a typical background field is about 0.1 milligauss.

Both the strength of the energy and the duration of exposure must be considered when evaluating exposure to electromagnetic energy. In a case in Boca Raton, Florida, experts for the power company testified that the fields present at a school were no different than those encountered in the home. The testimony was deceitful because it did not consider the duration of dose.

In laboratory studies, I found that powerline electromagnetic energy altered brain electrical activity in rabbits; the observations supported the view that the energy is a biological stressor. Hence, reaction to the energy involves effects on virtually all body systems and is expected to lead to elevated disease levels because chronic stress adds to the total body burden by taxing the body's adaptive capacity. Additional effects known and/or suspected include blood cancer, nerve cancer, depression and suicide, and neurasthenia.