



SMART METER FACT SHEET

Smart meters or wireless meters utilize radio frequency (RF) microwave radiation to send information about a customer's utility usage to the product suppliers, typically electric, gas and water companies. RF microwave radiation is the same type of radiation emitted from cell towers, cellphones, Wi-Fi and other wireless communication devices.

Smart meters produce very strong short bursts of pulsed RF microwave radiation many times over a 24 hour period. And unlike other wireless devices, smart meters are permanently installed in close proximity to people, even potentially sharing a wall with a child's bedroom or family room. Smart meters transmit data directly to the utility or through a network that helps to aggregate and transmit the signals. The frequency of the signals can range from once every few hours to tens of thousands of times per day. People living in apartments near banks of meters or utility collector meters that relay signals from hundreds of homes are exposed to significantly greater amounts of radiation.

There are thousands of published, independent, peer-reviewed studies that prove biological harm from RF microwave radiation. Over the last 50+ years a significant body of evidence demonstrates biological harm from exposure to RF microwave radiation from wireless devices, particularly those using pulsed frequencies. However, the human exposure guidelines established by the Federal Communication Commission (FCC) in 1996 are limited to the thermal effects, not biological effects, and are completely outdated and irrelevant in today's world.

The World Health Organization has classified wireless radiation as a Group 2B "possible human carcinogen" and a review by an independent panel of experts of the recent \$30 million study by the National Toxicology Program of the National Institutes of Health revealed "clear evidence" of carcinogenicity from chronic, low-level exposure. A recent study by the world renowned Ramazzini Institute corroborated these findings.

Harmful health effects of RF microwave radiation include neurological and cognitive impacts, reproductive problems and DNA damage, which can occur at levels hundreds of times lower than current U.S. exposure limits. Many studies show an increase in oxidative stress, which damages cells and their DNA and is associated with many diseases such as cancer and Alzheimer's disease.

Although everyone is vulnerable, developing fetuses, children, the elderly and those with cardiac and neurological problems as well as those with implanted medical devices are especially at risk. The American Academy of Pediatrics warns that current exposure standards do not account for the unique vulnerability and use patterns specific to pregnant women and children.



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Radiation exposures from smart meters are involuntary exposures, which consumers cannot control or reduce, as opposed to voluntary use of other wireless devices such as cell phones, tablets, computers and Wi-Fi.

Smart meter technology has not sufficiently addressed other significant problems associated with the use of these meters such as a higher rate of electrical fires, dirty electricity or higher EMF fields, problems with privacy, mining personal data and a rise in utility bills.

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