

Scientific Evidence for Negative Health Effects from Smart Meter Infrastructure

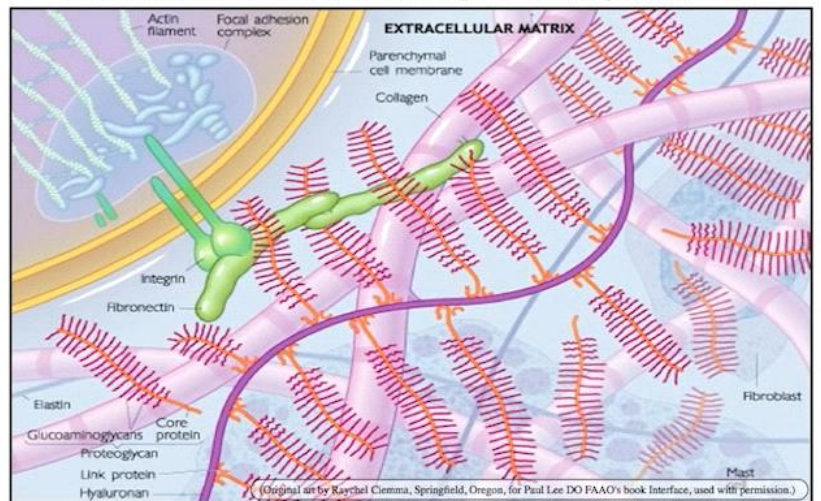
The human body, as with all life on earth, functions not only biochemically, but also electromagnetically. If this were not the case, there could be no such instruments as the EKG (electrocardiogram) and the EEG (electroencephalogram), which evaluate the functioning of the heart and the brain, respectively.

Human cells rely on electromagnetic impulses to maintain health.

"Emerging evidence indicates that the cellular electromagnetic field regulates the fundamental physics of cell biology. The electromagnetic oscillations and synchronization of biomolecules triggered by the internal and external pulses serve as the physical basis of the cellular electromagnetic field."

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9627210/> (from the Abstract)

Molecules resonate in fluctuating electromagnetic fields.



The molecules in our bodies vary in size and total electric charge.
These molecular structures of our body resonate with fluctuating electromagnetic fields.

https://www.youtube.com/watch?v=_d4NOOfTOUDA minute 23

Life on earth has evolved over millions of years to absorb the natural radiation from the sun and stars. In contrast, the non-ionizing, pulse-modulated, radiofrequency/microwave (RF/MW) radiation emitted from modern wireless infrastructure and devices, including Smart Meters, is xenobiotic--foreign to life, and poses risks to human health and to the environment.

The utility company's assumptions of the safety of Smart Meters are false.

Utility companies claim that the radiation emitted from Smart Meters is so low as to be harmless. They endeavor to counter evidenced claims of harm by reassuring consumers that the radiation from Smart Meters is no different from that coming from familiar devices such as garage door openers and baby monitors. The general public assumes that these devices are safe, and that federal agencies such as the FCC (Federal Communications Commission), FDA (Food and Drug Administration), and EPA (Environmental Protection Agency) have researched the biological effects of this radiation, and would not have allowed them on the market if they were not safe. These assumptions are false, and these familiar devices themselves are not safe.

The FCC, the only federal agency with regulatory authority over wireless, lost a court case in 2021.

On August 13, 2021, "the United States Court of Appeals for the District of Columbia Circuit ruled in the historic case EHT [Environmental Health Trust] et al. v. the FCC that the December 2019 decision by the Federal Communications Commission (FCC) to retain its **1996 safety limits** for human exposure to wireless radiation was 'arbitrary and capricious.' The court held that the FCC failed to respond to 'record evidence that exposure to RF radiation at levels below the Commission's current limits may cause negative health effects unrelated to cancer.' Further, the agency demonstrated 'a complete failure to respond to comments concerning environmental harm caused by RF radiation.'" (emphasis added)

<https://ehtrust.org/in-historic-decision-federal-court-finds-fcc-failed-to-explain-why-it-ignored-scientific-evidence-showing-harm-from-wireless-radiation/>

As of this writing the FCC has not responded to the 2021 ruling, which mandated that the FCC justify its lack of due diligence in failing to address the 11,000 pages of evidence of harm that had been submitted to the docket.

There is a dangerous regulatory gap.

"The issue exemplifies the concept of a regulatory gap. Current regulations are inadequate to protect health as **regulatory activities are non-existent for environmental monitoring, premarket safety testing, postmarket**

health/environmental surveillance, scientific hazard and risk assessment, compliance oversight and interagency coordination." (emphasis added)

<https://ehtrust.org/the-regulation-of-wireless-radiation-in-the-united-states-exemplar-of-a-regulatory-gap/>

The FCC acknowledges that RFR [radiofrequency radiation] causes health problems.

"The FCC admitted in 2019 that at least some RFs can cause non-thermal adverse effects with RF frequencies ranging between 3 KHz and 10 MHz.⁵¹ Pulsed RF created by the AC/DC conversion performed by smart and digital meters' Switch Mode Power Supply (SMPS), generates frequencies between 2-50 KHz, which fall squarely in the range identified by the FCC as problematic.⁵² The FCC noted that '[a]dverse neural stimulation effects...include acute effects such as perception of tingling, shock, pain, or altered behavior due to excitation of tissue in the body's peripheral nervous system.'³⁴ FCC Rcd at 11743-11744, ¶122 n.328. These are the same symptoms suffered by the 'customers' and by others who report adverse health effects from smart meters.³⁴ FCC Rcd at 11742-11744, ¶¶119-122." (pages 18-19)

<https://childrenshealthdefense.org/wp-content/uploads/Brief-and-Addendum-Submitted-9-14.pdf>

Frequent, high intensity pulsing is harmful to health.

Research has shown that it is the pulsed nature of the RF radiation generated by the Smart Meter's Switch Mode Power Supply (SMPS) which is particularly harmful to health.

"Smart meter RFR consists of frequent, very intense but very brief pulses throughout the day. Because smart meter exposure over a 24 hour period can be very prolonged (pulses can average 9,600 times a day and up to 190,000 signals a day), and because there is building evidence that the sharp, high intensity pulses are particularly harmful, the cell phone study findings are applicable when discussing adverse health impacts from smart meters. [The cell phone study found an increase of specific types of cancer in people who were in the habit of holding a cell phone to their ear for more than 10 years.]

"While the strongest evidence for hazards coming from RFR is for cancer, there is a growing body of evidence that some people develop a condition called electrohypersensitivity (EHS). These individuals respond to being in the presence of RFR with a variety of symptoms, including headache, fatigue, memory loss, ringing in the ears, 'brain fog' and burning, tingling and itchy skin."

<https://ehtrust.org/wp-content/uploads/Carpenter-Letter.pdf>

Smart Meter Mesh Networks cause health problems.

A thorough scientific literature review was prepared by six medical doctors in 2013 for the Eugene, Oregon Water and Electric Board. This report provides a detailed explanation of the health harms from Smart Meters and the Mesh Network that they require. **Even consumers who opt-out of the Smart Meter on their own home or business will still be exposed to effects**

from the Mesh Network in their neighborhood.

"MESH Network"

"From a biological point of view, AMI meters [same as AMF meters] that are transmitting several times a minute can be considered to be an essentially constant source of RF exposure. Where these networks have been established in the last two years, large increases in reported acute symptoms have occurred. We think it is medically probable that this technology will be found to cause an increase in chronic health problems, including increased cancer, once sufficient time has passed for this to occur." (p. 70)

<https://skyvisionsolutions.files.wordpress.com/2013/11/paul-dart-md-lead-author-report-to-eweb-june-2013.pdf>

The telecommunications industry labels RFR a pollutant.

This radiofrequency radiation, which is also emitted from cell towers and cell phones, is labeled a *pollutant* by the telecommunications industry itself.

<https://ehtrust.org/key-issues/electromagnetic-field-insurance-policy-exclusions/> The electrosmog generated by many thousands of Smart Meters in a community, linked via a Mesh Network, creates an always-on toxic environment, negatively affecting all life, and manifesting as disease in a substantial percentage of the public.

Since "2010, utility consumers [in New York State] began linking the new [digital] meters to developing electromagnetic sensitivity, a federally recognized disability. [https://www.electrosmogprevention.org/smart-meter-resources-links/ada-accommodations-info/recognition-of-the-electromagnetic-sensitivity-as-a-disability-under-the-ada/]

This condition manifests in a constellation of mostly neurological symptoms after exposure to RFR. Such exposure can cause headaches, memory and cognitive problems, sleep problems, heart palpitations and/or increased heart rate, ringing in the ears, exhaustion, skin rashes, vertigo, tingling in extremities, nose bleeds, burning sensations and more. As a result, some utility consumers are now unable to tolerate RFR from transmitting and non-transmitting digital meters and also from other electronic and wireless devices. For them, an analog meter is imperative." (page 1)

<https://static1.squarespace.com/static/5a9ede31f2e6b10db4aaa0d8/t/6261f23c7b2ee77d3201e11f/1650586172780/Summary+-+Consumer+Protection+and+Utility+Meter+Choice+-+NYSUMA+-+2022.docx.pdf>

Prevalence of individuals exhibiting health harms from electromagnetic pollution.

"A 2019 Bevington study,⁵⁷ ["The Prevalence of People with Restricted Access to Work in Manmade Electromagnetic Environments"] analyzed the prevalence of EMS [electromagnetic sensitivity] within a given population. Based on a population of 332.4

million people in the U.S., the numbers are staggering:

Prevalence of EMS Percentages	Number of EMS in U.S.
Can't work – 0.65%	2.16 million
Severe symptoms – 1.5%	4.99 million
Moderate symptoms – 5%	16.6 million
Mild symptoms – 30%	99.7 million

"That means that based on those who can't work or who have severe symptoms, over 7 million are EMS." (page 17)

<https://thenationalcall.org/wp-content/uploads/2023/11/HHS-Submission-11-13-23-FINAL.pdf>

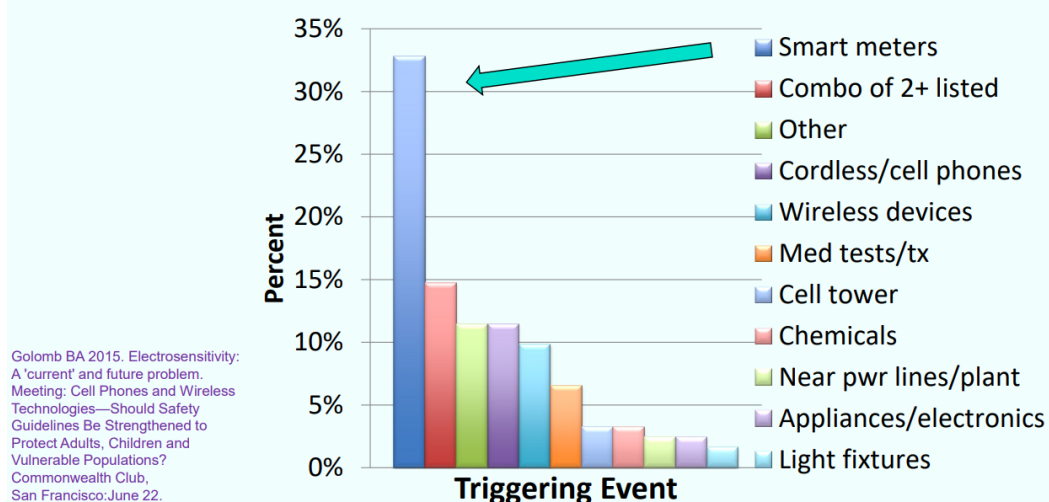
This is the tip of the iceberg, in that the exposure has been increasing exponentially since 2019, due to the dense siting of small cell antennas in neighborhoods as well as the installation of Smart Meters.

Smart Meters trigger electromagnetic illness.

Dr. Bernice Golumb conducted research prior to 2021 which found the following: "We asked the ES [Electrosensitive] people if they recognized an inciting or triggering event, and close to 70% did – and by far the most commonly reported trigger was smart meters."

<http://longmont4safetech.org/dr-beatrice-golumb-ems-triggering-events-survey/>

Cause of EHS: 69% of Respondents Reported A Triggering Event, with Smart Meters as Top Cause



<https://einarflydal.com/wp-content/uploads/2022/09/Beatrice-A-Golomb-Lecture-on-AMS-meters-and-health.pdf>

Additional evidence of harms:

Evidence of negative changes to blood cells with a short exposure to a Smart Meter:

<https://www.youtube.com/watch?v=y4JDEspdx58>

Evidence of negative effects on the human heart with a short exposure to a Smart Meter:

<https://www.youtube.com/watch?v=UIobFr3m8kk>

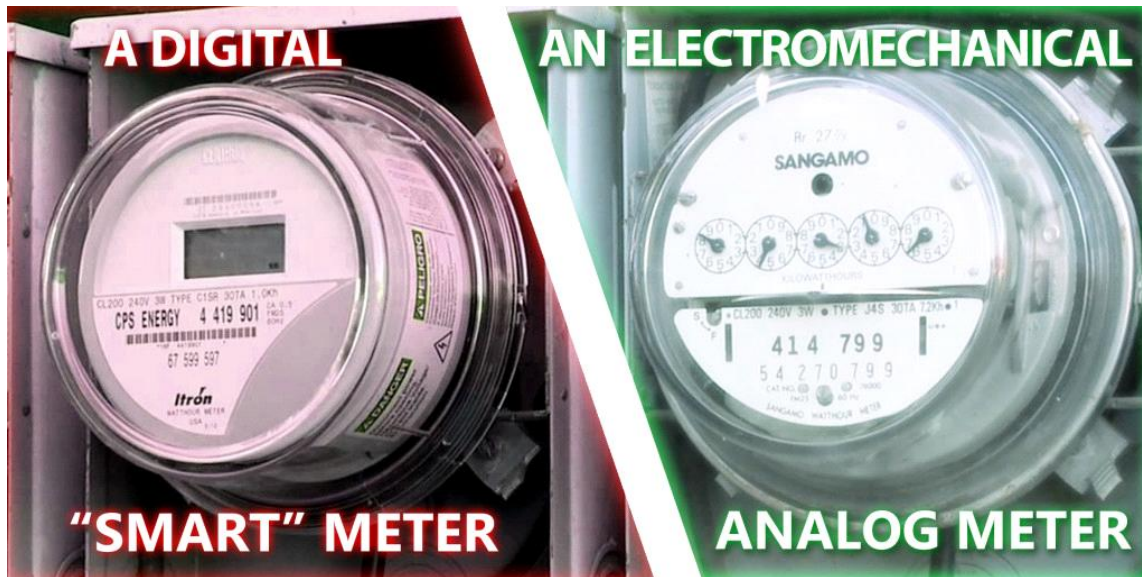
Testimony from a veterinary radiologist on the severe symptoms she experienced with the installation of a Smart Meter on her home:

<https://www.youtube.com/watch?v=q5gzqAtDBUU>

In conclusion:

Smart Meter devices and infrastructure contribute substantially to the electrosmog that is toxic to a significant portion of the public, and negatively affect even those who are not yet experiencing symptoms. This infrastructure has been imposed across the country, and is now being rolled out in Rhode Island, without due diligence to consider and respond to the extensive accumulated scientific evidence of harm. This is unacceptable. Analog meters pose no risks to health or safety and function accurately for up to 50 years. At the very least, home and business consumers must

have a choice of a **no fee, analog/electromechanical/non-digital meter.**



<https://stopsmartmeters.org/frequently-asked-questions/faq-smart-meter-basics>

Municipal and State Departments of Health must undertake a public health hazard investigation into Smart Meter infrastructure in order to protect the health and safety of the public and the environment.

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updated March, 2025