

Dear Secretary Kennedy and all Department of Health and Human Services Staff:

First of all, I wish to thank you for your service and for this opportunity to provide information on EMF. This submission will explore three different frequency ranges of electromagnetic exposure and their effects on human health.

- 1. Radiofrequency radiation in the cellphone/celltower microwave bands.**
- 2. Radar in the millimeter bands used in some vehicles.**
- 3. Infrasound in the frequencies below 20kHz used in industry such as data centers.**

1. RADIOFREQUENCY RADIATION

To begin, here is a recap of a study of radiofrequency radiation (RFR) and human hormones from: ***How does long term exposure to base stations and mobile phones affect human hormone profiles?***

The study is unique in several ways:

- 1. It was a human study.**
- 2. It was done at a time when there was still an unexposed population to act as controls.**
- 3. It studied the longterm effects of RFR on human hormone levels over 5 years.**

Parameters of Study:

- A. Two age groups, 14 to 22 and 25 to 60 years old, men and women.**
- B. A two part study: the “mobile phone” (cellphone) exposure group and the base station (cell tower) exposure group.**
- C. Hormone testing done at the one year, three year and six year marks.**
- D. “Strong” cellphone use was anything over one hour per day.** (Controls had no cellphone use)

Drilling down into the cellphone exposure data:

Across both age groups, **within 5 years there was a Testosterone decrease of 54% in men** with “strong” cellphone usage (more than one hour per day) versus Controls. Testosterone in women was not measured.

In the same 5 years, **Cortisol levels** among “strong” cellphone users **dropped 41%** vs Controls in the older group, and **40%** in the younger group.

In the younger group thyroid hormone **T4 (thyroxine) increased 48%** over 5 years among the “strong” cellphone users vs Controls. **T3 (triiodothyronine) decreased 23%**. In the older group, the trend for T3 and T4 was similar, but not as dramatic, especially in T4.

The other hormone levels studied were also significantly altered, with a **33% drop over 5 years in ACTH** among “strong” cellphone users vs Controls in the younger group, and a **20% drop in the older group**.

The base station (cell tower) section of the study **divided exposure levels into 3 distances** from the towers:

D1 = 20 to 100 meters away

D2 = 100 to 500 meters away

Controls = more than 500 meters away

Results in cell tower data were also significant, with a **58% Testosterone drop** in 5 years **in the younger men** closest to the towers vs Controls, **and a 30% drop in the older men**.

All of the data is detailed in the linked study below; the above data points are just a few of the highlights.

<https://emfgeo.com/wp-content/uploads/2025/07/mobile-phone-base-station-hormones-eskander-2012.pdf>

The study provides clear evidence that cellphone and celltower signals may be impacting human well-being in a fundamental way, since endocrine function and its disruption influence our health on all levels: physical, mental, emotional and psychological.

Considering the limited (5 year) time period of hormone testing, and that “strong” exposure to cellphones was defined as anything over one hour of use per day, what might happen to human hormonal levels with the current use of cellphones and proximity to numerous other sources of wireless radiation for 30, 40, 50 or more years, beginning in infancy?

The dramatic decline of male fertility has been widely reported. **If Testosterone dropped 54% in just 5 years of relatively mild cellphone use vs controls**, it seems likely that radiofrequency exposure may be a factor in this fertility drop.

Depression, obesity and many other now-common health maladies are also known to correlate with altered hormone profiles.

Below is a link to a 4 minute video measuring RFR power at various distances from both an Apple watch and a wifi router, filmed in March 2024 by an EMF remediation professional. It compares the readings with various well-known safety exposure guidelines. The meter also registers an audible demonstration of radiofrequency pulses per second of each device.

Here is a link to it: <https://www.youtube.com/watch?v=nOgt7FmuEQo>

CONCLUSIONS

We all know that microwave ovens can boil water and cook meat. What do we think the RFR/microwaves now saturating our world are doing to the delicate structures of our bodies and brains? *

We need to stop denying the biological harms done by ever-increasing wireless exposures and start regulating the use of these frequencies in a responsible manner. “Move fast and break things” may be a catchy slogan, but the things it is breaking are human hearts, bodies and minds.

It is time to slow down and reassess the rapid expansion of wireless radiation, including the roll-out of 5G antennas and massive increase of satellites - if we want to preserve and protect our precious human race.

The corollary to this is that government agencies have a duty to warn the public. People are using wireless devices constantly and close to their bodies and those of their children – because they believe what they have been told by government agencies and the telecom industry that such use is safe. The results of these disastrous policies are evident.

2. AUTOMOTIVE RADAR

Radar sends out a transmission in the form of a high-frequency radio wave and "listens" for it to be bounced back by a solid object.

The radar frequencies currently in use are all in the millimeter (GHz) range - operating at frequencies such as 24GHz, 76-77GHz, and 79-81GHz. Some refer to the higher ranges I listed as the “5G High Band”. Reportedly, some radar technology is being installed in approximately 70% of all new cars, and most autonomous vehicles.

Radar at 24 GHz had previously been common, but newer vehicle radar systems are switching from the 24 GHz band to the 76 to 81 GHz bands.

I have searched the internet and could not find a single scientific study that examined the effects of automotive radar on human health. *

So this is yet another untested exposure that everyone on the roads, whether driving, cycling or walking, is subject to. Is there no government oversight?

When I was growing up, everyone knew that radar was dangerous. Now it is deployed, apparently with no consideration of its hazards by in the auto/tech industry, all in the name of our supposed “safety”.

How safe is it to have a 77GHz radar with a forward range of 150 to 250 meters right behind you or coming at you on a road? (that’s ~ 500 to 800 ft). That is what Tesla radar started using in 2023. As far as I am concerned, it has made the roads very **unsafe**.

For a human race that is clearly intelligent, this is not very smart.

Since WWII, the military has known of the dangers of RADAR, the term coined for it in 1940 by the US Navy as an acronym for "radio detection and ranging".

I do not need a scientific paper to tell me it’s harmful. Two or three minutes at a stoplight with a Tesla car behind me was enough evidence for me. I did not realize it was there until it passed me as we turned onto the highway.

******There are delayed reactions in many if not most people with RFR exposure, just like with sunburn, but quicker. Within ten minutes I was so messed up, agitated and disoriented that I could barely navigate.

After several other more extreme exposures near a Tesla, including bad headaches lasting many hours, I now stay off the roads. It is even worse if I am not inside the partial protection of a vehicle. So I rarely go anywhere anymore.

This is what our out-of-control tech industry has brought us to, a world that is fast becoming almost uninhabitable for many of us, and seriously harmful for all, whether they feel it or not.

I don't feel X-rays – does that mean they are not harmful?

*This is what I found when looking for a scientific study:

It is from the AEES – the IEEE Aerospace and Electronics Systems Society, apparently a presentation done by Igal Bilik of Ben Gurion University in Israel. (He is speaking English, and there are good subtitles).

<https://ieee-aess.org/presentation/webinar/human-health-aspects-radar-operation>

I watched most of it, and heard him mention radar only once. He did, however, spend most of the time discussing, with the help of numerous excellent charts, how much damage is being done in their laboratories to red blood cells by radiofrequency radiation.

****Note re Delayed Reactions to Radiofrequency Radiation RFR:**

One key factor of RFR exposure is all but unknown by nearly everyone except those who suffer obvious effects from it. For some if not most people, there is a delayed reaction between exposure to wireless radiation and onset of symptoms. It is like sunburn – the skin redness and inflammation does not show up immediately upon overexposure to the sun – it usually appears the next day.

With RFR exposures it is similar but with a much shorter delay period for some of us. For me, nearby exposure to a cellphone, cordless DECT phone or automotive radar takes about ten minutes to ramp up. Then obvious symptoms like headache worsen for an hour or two depending on strength and duration of exposure, then gradually taper off, with the worst exposures causing symptoms that last about 20 hours.

This is a major reason why, when someone tries to test whether or not a person feels a wireless exposure, they often find no clear evidence “in real time” in many if not most cases.

The ambient environment in any populated place is now so saturated with RFR that the subject would already have been heavily exposed before arrival at a testing facility. And once testing began, the symptoms from it would likely be delayed.

Such experimentation is tantamount to torture for a sensitive person, and I think that few people who have already realized the cause of their painful, debilitating RFR symptoms, would agree to participate in such an endeavor.

3. INFRASOUND

As a woman at the Memphis, Tennessee City Council Data Center Moratorium meeting put it on October 20th, 2026, “Data centers do not belong in neighborhoods and communities”.

The quotations presented below in each section are drawn from the scientific paper's title which precedes them.

Infrasound in Biology and Medicine: Insights into Mechanisms, Health Outcomes and Research Perspectives - A Narrative Review

Noise and Health [27\(129\):p 676-691, November-December 2025.](#)

DOI: 10.4103/nah.nah_136_25

“Infrasound refers to sound waves with frequencies below the threshold of human hearing (<20 Hz). These waves have gained significant attention owing to their bizarre interactions with biological systems.”

“The unique ability of infrasound to influence human health and physiological processes has been partially attributed to its low frequency and amplitude, which overlaps with the frequency range of” biochemical processes which affect cardiovascular, neurological and vestibular systems.”

Thus infrasound can cause sleep disruption, cognitive impairment, tinnitus, fatigue, dizziness, nausea, anxiety and irritability. It can disrupt calcium metabolism in the heart, leading to impaired cardiac performance. A “tendency toward physical weakness” from infrasound exposure has also been noted.

“The long-term implications of exposure to infrasound remain uncertain, although reports suggest that such exposure might alter sleep habits, disturb work performance, and undermine individual well-being.[33] “

“It is well documented in the scientific literature that individuals residing near wind farms claim to experience patterns of sleep disturbances, headaches, dizziness and anxiety, collectively referred to as wind turbine syndrome.[36]”

Key take-aways from the study:

- (1) “Infrasound exposure influences multiple physiological systems, including cardiovascular, vestibular and neural pathways.”
- (2) “Health outcomes depend on frequency, intensity and duration (time) of exposure, underscoring the need for well-defined exposure thresholds.”

Infrasound and Low-Frequency Noise in Data Center Environments: A Narrative Review Toward Health-Protective Acoustic Design Standards

Information Science Department, University of North Texas, Denton, TX 76203, USA

<https://www.mdpi.com/2571-8797/8/4/126>

note: ILFN = **infrasound and low-frequency noise**

“No published study has measured the ILFN spectrum of an operational data center, nor examined health outcomes in workers or surrounding communities with respect to sub-audible acoustic exposure.”

“Evidence from wind turbine, industrial, and laboratory contexts documents non-auditory ILFN pathways, including sleep disturbance, cardiovascular stress responses, cognitive impairment, and audiovestibular symptoms—effects that operate below the auditory threshold and are substantially undercounted by standard dBA monitoring.”

“Data center cooling fans, heating, ventilation, and air conditioning (HVAC) equipment, uninterruptible power supplies, backup diesel generators, and power transformers collectively produce acoustic output that extends into the infrasound (<20 Hz) and low-frequency noise (LFN, 20–200 Hz) range, referred to collectively here as ILFN.”

“Relevant engineering solutions have been validated in analogous industrial contexts and are candidates for adaptation to data center sub-audible frequencies pending dedicated evaluation.”

“The missing element is not engineering capability, but the frequency-characterized measurement data needed to define target exposure spectra and evaluate solution effectiveness at 1–200 Hz in operational data center environments.”

Infrasound and Human Health: Mechanisms, Effects, and Applications

[Appl. Sci.](#) 2026, 16(3), 1553; 2 February 2026

<https://doi.org/10.3390/app16031553>

“Scientific evidence from cellular and animal studies, as well as limited human studies, indicates that high-intensity infrasound can induce oxidative stress, mitochondrial dysfunction, calcium accumulation, and activation of apoptotic pathways, ultimately leading to tissue damage and functional disorders in cardiovascular, nervous, and other systems.”

In summary, low frequency pressure waves known as infrasound have serious physical and mental health repercussions for anyone living near them, and are nearly impossible to mitigate.

Up until recently, any public awareness of infrasound was primarily in the context of that produced by wind turbines, since for years people have been complaining of symptoms, with some even resorting to moving away from the wind “farms”, leaving their homes and communities behind.

But data centers also produce a lot of infrasound from components such as fans, chillers, pumps and transformers, which can penetrate the surrounding area inside and outside of homes, schools and every part of communities. Considering the rapid current build-out of huge data centers, I think evidence suggests we need a cautionary approach in the placement of these facilities and citizen oversight of any potential site approvals.

One of the big problems with the roll-out of data centers has been the initial secrecy. Residents are blindsided by it, with no clue until plans are underway, since much of the approval process has been done behind closed doors, with NDAs (non-disclosure agreements) often signed between local officials and tech companies seeking permits to build.

Federal standards which are protective of public exposure to infrasound should be implemented. In addition, since infrasound travels large distances, is almost impossible to block, and research already reveals serious adverse effects on human health, it would be best if data centers were restricted to areas well away from human habitation.

*For further information on Infrasound in video format, the following is a discussion of the subject by **Dr. Mariana Alves-Pereira, PhD**, who has been studying infrasound for over 30 years,*

<https://www.youtube.com/watch?v=2Q7rgDH8M8s>

She explains the physics of these inaudible pressure waves and their serious health implications - and also the reason why infrasound is almost impossible to mitigate.