

5G and the flu: Could there be a connection?

by Einar Flydal, cand.scient., Master of Telecom Strategy, retired, and a science blogger on EMF, health and the environment

Among the wildest ideas deep within the most distant jungles of the Internet is the idea that there must be a connection between the new flu epidemic that allegedly started in a fish market in the Wuhan metropolis in China, and the rollout of 5G in the city. Some take this idea up to the very highest heights and see a global [conspiracy](#) somewhere in the background.

Let's peel away all the nonsense of a great global conspiracy. When so done, how crazy is the idea, really?

A Norwegian outbreak - before the corona virus arrived?

We recently got a domestic version of this fear here in Norway. Could 5G have caused the flu epidemic at the Flatåsen school in Trondheim, Norway, near a newly erected 5G mast? Many thought so.

An extraordinary huge number of the pupils at that school had fallen ill, and according to media two deaths have also occurred from the flu in the same city - before any instances of the corona virus had been identified in the country.

Thus, it was serious matter, and launching irresponsible explanations was serious matter, too.

Hence, it was also serious when [Faktisk.no](#), an enterprise of journalists established to investigate and expose allegedly fake news, did a poor investigation job and drew a conclusion after only having searched for answers in the environments where it is foreseeable that the conclusion will be a complete rejection of any such connection.

Things are not that simple - although most people might probably like to debunk the thought that 5G can bring about flu epidemics as a "conspiracy theory", or an idea based on technophobia, a practical joke, or a business idea to attract clicks to a website making its income from advertising. But the case deserves more thorough treatment.

An "electrical disease"?

The [Faktisk.no](#) journalists checked the matter by calling a senior adviser (Lars Klæboe) at the Norwegian Radiation Protection Agency (DSA), whose job it is to defend the view that such effects cannot even be imagined. And they called a researcher (Dag Marcus Eide) at the Institute of Public Health, also a government agency defending the identical view.

Of course, they both rejected the idea that radiation from mobile masts can trigger the flu. Eide did so by pointing out that the radiation from mobile masts is far too weak to generate *heating*, which is the damage criterion used in the ICNIRP recommendations followed by Norway and several other Western countries. Surely, they were also told that the flue - or influenza - is, in fact, defined as a viral disease. Hence such the idea makes no sense.

Faktisk.

Q Søk



FAKTASJEKK

Nei, mobilstråling påvirker ikke immunforsvaret slik at man lettere får influensa

KOMMENTARER PÅ FACEBOOK

*Text from the "fact checker" Faktisk.no:
"No, radiation from mobile systems does not impact the immune system in ways that increase the risk for catching the flu"*

The case was easily closed by the three journalists. Then their conclusion went viral: "*No, radiation from mobile systems does not impact the immune system in ways that increase the risk for catching the flu.*"

But could the flu still be an "electrical disease"?

May be the conclusion was so easily drawn because the journalists felt the case was so obvious? But would it not be appropriate to check with anyone other than those in office bound to dismiss any such connection? E.g., to check what independent research might have to say about the matter?

In short, one part of the issue is: *May the flu - or symptoms that are similar - be triggered by radiation from mobile communication? Is there a scientifically sound basis for claiming that such a connection is possible, or that it is even scientifically reasonably well proven?*

I have had this topic in mind since I translated Arthur Firstenberg's book *The Invisible Rainbow - A History of Electricity and Life* into Norwegian (Firstenberg 2017). There I found the strange notion that the flu is "*an electrical disease*". Firstenberg refers to extensive supportive observations and research, dating back to the founding fathers of medicine in ancient Greece, as well as up until today. His claims made me at first wonder about the mental health of the author and made me doubtful to his entire book. But there was so much else well-founded stuff that I found I would rather go along with this seemingly strange notion of the flu.

Eventually, I thought that what we call «the flu» might be several different phenomena having identical symptoms - in other words, that the symptoms could be virus-related, but that they might also appear independently of the viruses, due to influence from electromagnetic fields. If so, it could lead to faulty diagnoses, people with «electrical disease» being diagnosed as suffering from the flu. A third option, I thought, could be that the virus might be "turned on" by electrical forces.

After all, Firstenberg's book describes the lion's share of the symptoms of influenza in a list of responses to even very weak electromagnetic fields, a list that has not changed much since the early years of 1800, well before wireless radio saw the light of day, and also that

- since Antiquity until about 1850 influenza was observed as typically associated with sunspot outbreaks. (Sunspots cause a heavy "electrical bombing" of the Earth.) And he notes that
- during *Maunder's minimum*, a period of 350 years with extremely small and weak sunspots, there were no influenza epidemics in the part of the world known to Europe, so doctors were not familiar with such a disease, when influenza epidemics became an annual phenomenon with the rollout of electricity, and that
- in a number of cases, observations have indicated that even huge influenza epidemics, [i.e. *pandemics*], have shown *not* to be contagious, despite extensive attempts to provoke direct drop infection, and that
- in the past, when people travelled less and slower, let's say from the 1850s to the Spanish flue at the end of World War I, influenza outbursts occurred independently and almost simultaneously, with no possible contagion from the one location to the other, not even by birds, and that
- flu epidemics since the 1850s are correlated with the electrical environment - from the introduction of the telegraph to household electricity, with the major pandemics linked to the rollout of global radio systems, communications satellites and the development of military radar systems.

If all these claims should be true simultaneously, as historical sources and scientific evidence seem to suggest, it is tempting to suppose that they must have a common explanation. Could that explanation indeed be some electrical force?

Engaging in such speculation and search for clues - without any premature claims of having found *The Right Answer* - is essential to all research and creative thinking, and such speculation is important to break down conventional viewpoints that might blindfold us. Hence, we are to look for

indications, not for proofs, to see if they might point in the same direction. (Later, we would then search for valid counter-arguments, in order to tell whether the indices seem to provide solid evidence or not.)

Here are a few more features of what we call «the flu», or «influenza», that may fit with the idea of it being an «electrical illness» and that several supposed cases of flu might be cases of «electrical illness»:

1. Influenza occurs especially in late autumn or winter, i.e. when we move indoors and get closer to electric fields and use more electricity.
2. None of the symptoms are specific to the flu. They have a lot in common with colds, and otherwise consist of such symptoms that are also included in *the microwave syndrome* - body pain, headaches, heart rhythm disorders, joint pain, lethargy, restless night sleep, low energy levels...
3. Death rates increase during the flu epidemic, from a rather low increase to a significant level, and deaths are associated with having symptoms. And Firstenberg describes in *The Invisible Rainbow* how similar symptoms suddenly appeared in New York when the city's first mobile phone network was turned on.
4. In that same book, Firstenberg reproduces graphs showing elevated death rates in nine cities in the USA, during the first weeks after the first mobile phone networks were turned on. These elevated death rates have not been studied for symptoms. Whether they were similar to the symptoms typical to the flu, is not known, but the increased death rates seem linked to the mobile networks getting on air, which happened at different seasons of the year and uncoordinated in between the cities.
5. It has been firmly demonstrated that «weather sickness» - experienced in particular by people with rheumatic diseases - is caused by the exposure to very weak electrical pulses from discharges in weather systems – “tailed spikes” which somehow are more frequent at specific frequencies (4, 6, 8, 10, 12 and 28 kHz). These frequencies change the permeability of the collagen molecule and thereby have an impact on many body functions, including metabolism (Sönning 2013). Pulses at those very same frequencies are created, whether systematically or by chance, in electronic communication. The coupling between such weak - sub-thermal - pulses and biological reactions are well established in research (Adlkofer 2004).

Hence, there are indeed both some indications that the symptom cluster we call «the flu» or «influenza» could be an «electrical illness», e.g. *microwave disease*. But could the real flu, be both, i.e. a viral disease and an «electric illness»? I'm far from being a virologist, but still I feel in full rights of searching around to see if there could be support for such an idea. Or to search for hints pointing in that sense.

So, I looked around a little bit in the research literature, and the catch I got in just seconds indicated that there seemed to be some substance to investigate further:

- Bacteria and viruses are sensitive to weak electromagnetic pulses (or charges)
- Electromagnetic pulses can be used to kill or harm bacteria and viruses
- Bacteria and viruses use electromagnetic pulses to sense the world around them
- Bacteria and viruses communicate by using weak electromagnetic pulses
- Bacteria mobilize other bacteria of the same kind using weak electromagnetic pulses, they can form groups and they coordinate
- Viruses can be activated using electrical pulses
- Viruses can be modified using electrical pulses

Hence, one might speculate that electrical charges somehow might change or otherwise trigger a virus to become more active and dangerous.

The facts checking journalists could easily have found this information themselves. Or they could have gotten help to challenge the authorities' view by addressing sources who are not obliged - by virtue of their job - to negate such effects, or to negate such effects possibly being detrimental.

Foolish to give a categoric «No!»

From the knowledgebase above, it would be downright foolish to categorically draw the conclusion that 5G-masts *cannot possibly* trigger new influenza epidemics, or that exposure from such masts or similar sources, like WiFi routers in schools, *cannot possibly* trigger symptoms associated with the flu. Such a «logical scandal» is however what the Radiation Protection Agency (DSA) and the Norwegian Institute of Public Health representatives both defend, and the journalists do accept.

However, the findings above do not imply that it is in any way proven that radiation from a newly erected 5G mast at the above mentioned school must be the cause of the «flu symptoms epidemic» amongst the pupils, nor of the two tragic deaths among them. But the findings do mean that it is highly irresponsible to *claim* that so *cannot be the case*. It also means that it is highly irresponsible to *act* from such premises.

In fact, there is support in science that even weak exposure from cell masts and from the sun might have adverse effects that can stimulate development of flu epidemics.

May the immune system be impacted?

The claim that the “fake news” chasing journalists were examining and found to be false, was that the immune system could be weakened from mobile phone systems, thereby becoming less able to fend off the flu. Hence, a comment on the impact from weak EMF exposures on the immune system thus seems highly appropriate:

A new and better understanding of the causes behind a number of "unexplained illnesses" – such as fibromyalgia, ME (encephalomyelitis, or CFS/chronic fatigue syndrome), the Gulf syndrome, a.o. - got a breakthrough around 2006 (see for example Pall 2007). It was understood that a number of *environmental stressors* (i.e. environmental toxins) could cause a huge range of health disorders through an ensemble of closely related mechanisms. Since then, it has become quite common to use the illustration below (see figure).

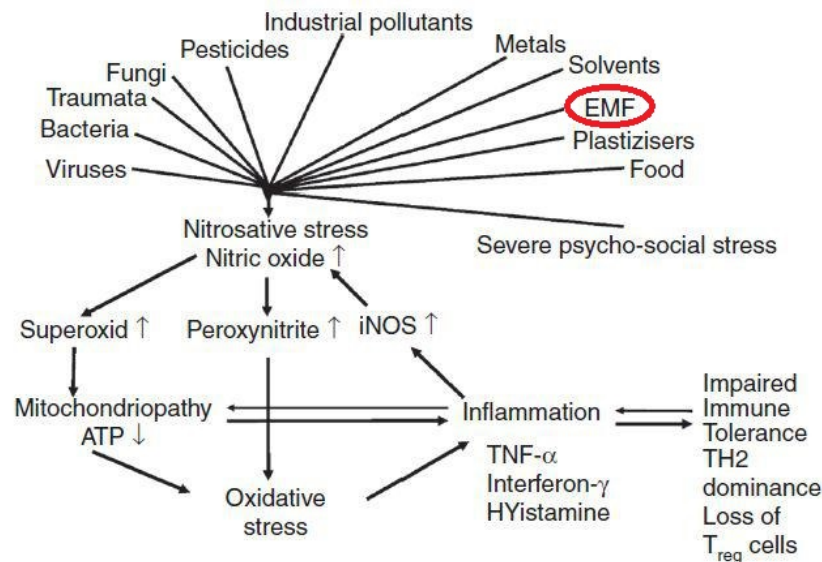
Briefly, the model illustrates that a number of *environmental stressors* (see upper part of figure), can initiate an *acute as well as durable, and over time self-maintaining, elevated production of oxidants* in cells, as well as *elevated signaling in the nervous system* (lower left). Such overproduction of various oxidants (often named *ROS/reactive oxygen species*) has an extremely wide range of possible downstream effects, *weakened immune system* being one of them (bottom right).

Electromagnetic fields (EMF) at exposure levels even *7,2 million times weaker* than present limits, have been demonstrated to cause such ROS upregulation, i.e. to cause possible detrimental effects (Pall 2016).

The medical association [Physicians for Safe Technology](https://mdsafetech.org/immune-system/) summarizes the relationship between EMFs and the immune system as follows on its website: (<https://mdsafetech.org/immune-system/>):

Can Radio Frequency Radiation Alter the Neuroendocrine and Immune System?

Researchers are learning about the complex effects of non-ionizing radiation on the neuroendocrine and immune systems. Some research has shown adverse effects on the thyroid function, immune system functioning and DNA repair within immune systems. Glucose metabolism in the brain can be affected acutely. Cell membrane effects with



The standard model, here from the EUROPAEM 2026 guidelines

alteration of calcium channels and creation of reactive oxygen species may be one reasonable mechanism as this appears to be a common toxic molecular response in many other studies which can have many physiologic effects.

This association of medical doctors mentions specifically WiFi, mobile communication and other wireless appliances as sources of radiation that seems capable of adversely affecting the immune system.

Very weak sources – may they have an effect on flu epidemics?

What then about such extremely weak exposures as from sunspots, discharges in weather systems and the signaling from a cell tower? May they have impacts on our immune system, as well? The answer from physicists in the West today is generally "No!", since non-ionizing radiation by definition cannot produce ions, and therefore not cause any atomic or molecular change. Mistakenly, these physicists have come to believe that no other options were at hand, but heating.

However, as well in Central Europe, the USSR and in the USA substantial groups of scientists, both before and after World War II, found solid evidence for impacts way below the limits for thermal damage, as they still do. In 1970 a translated review of the state of knowledge, commissioned by the Soviet Academy of Sciences, was re-published in English in New York (Presman 1970). A main point in this book was that the forces needed to create demonstrated effects are proven to be so minuscule that one must resort to *information theory* for explanations - as more mechanistic explanations failed. The idea being that *information as such* somehow seemed to have a biological impact, although unexplained. Later research has not discarded this understanding, but completed it, i.a. with quantum biology: Collagen molecules may twist when exposed to pulses at specific frequencies occurring both in nature and in man made radiocommunication, impacting metabolism (Sönning *ibid*), and migratory birds may orient themselves according to the inclination of the magnetic field lines (see McFadden & Al-Khalili 2014 for an introduction).

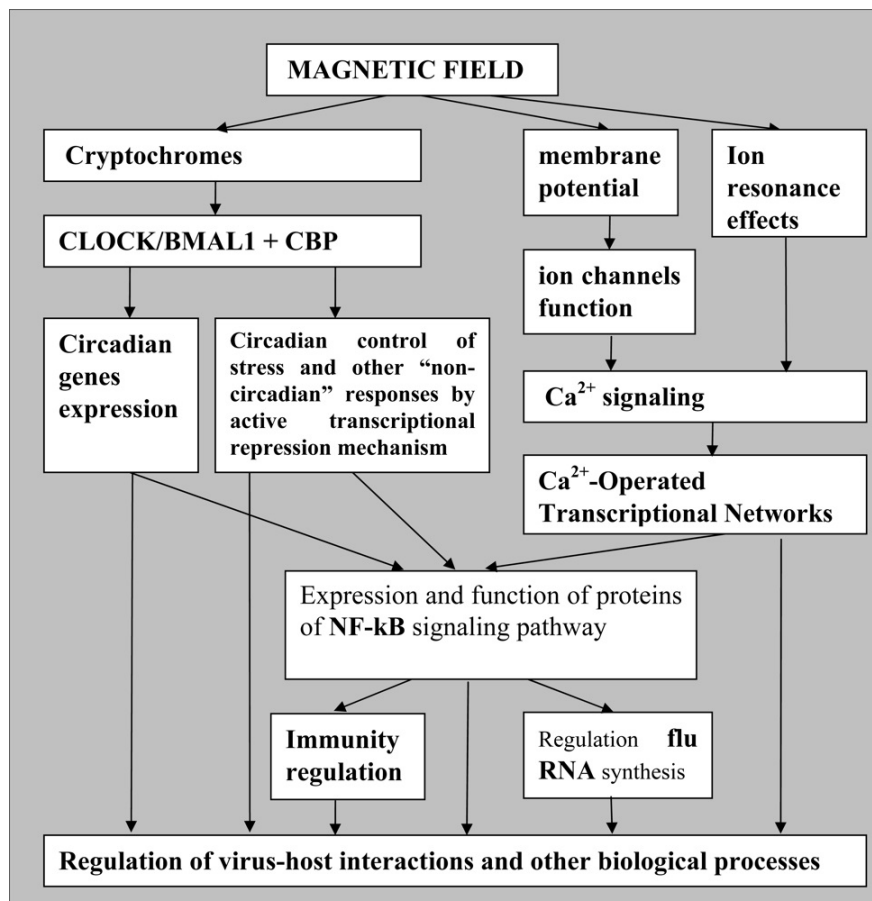
in 2000 it was proven mathematically and physically that the energy in the radiation from mobile phone towers is strong enough to open voltage gated calcium channels in cell membranes, thereby triggering the processes of oxidant increases illustrated in the figure above, (Panagopoulos et al 2002). The max output in modern electricity «smart» meters (0,82 W e.i.r.p.) is substantially stronger than the 0,25 W e.i.r.p. permitted from mobile 3G and 4G phones.

The mechanisms by which sunspots might impact viruses and trigger pandemics are not clear. However, a long range of studies do establish a connection from sunspots via the Earth's geomagnetic fields (which co-varies in strength with the sunspots), via the cryptochrome protein,

membrane potential and ion resonance effects, down to the interaction between flu viruses and their hosts.

In an overview paper (Zaporozhan and Ponomarenko 2010), two researchers at the University of Odessa draw on a substantial research tradition with an extensive literature, summing up the state of knowledge. In the following figure they display what they consider to be the probable pathways by which the Earth's magnetic fields, which oscillate synchronized with the sun's black spots and the resulting sunwind, have an impact on immunity regulation and on flu RNA.

Although mechanisms are not fully understood, the pathways are documented. *With just one single of these pathways proves correct, the connection from weak EMF to flu pandemics is proven.*



*Inventory of causal chains from Earth's magnetic field to influenza
(Zaporozhan and Ponomarenko 2010)*

Conclusion

It seems clear for everyone to see that the view that flu epidemics might be impacted from natural as well as manmade electromagnetic fields, is simply much closer to real life than the claims we are served from our radiation protection authorities. This is so, although such a connection seems indeed foreign to most of us.

The general lesson journalists wanting to unmask «fake news» should learn, is: *Check out sources that challenge established "truths"! If not, you might easily yourself become «the useful idiot» underpinning fake news!*

Einar Flydal, 3rd March 2020

The original text, written by Einar Flydal, cand.scient. and Master of Telecom Strategy, and a science blogger on EMF, health and the environment, was published in Norwegian as *5G og influensa: Faktisk.no tar helt feil i at det faktisk er helt feil*, in his blog, <http://einarflydal.com> on February 18, 2020. Einar Flydal lives and works in Oslo, Norway.

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