

# EMR and Health

Report on electromagnetic radiation, health and well-being

Vol 15 No 6 Dec 2019

## 5G and the law

Legal expert says that the deployment of 5G networks contravenes legislation.

In a legal opinion commissioned by the Danish Institute for Public Health, the Council for Health-Safe Telecommunications, the EHS association and the Danish Health Association May Day, Danish attorney Christian F Jensen states that activating the 5G telecommunications network would contravene a number of laws and could well cause harm.

After reviewing the scientific evidence, he concluded that there is clear evidence that radiofrequency radiation, even at levels that comply with the country's standard:

- causes DNA damage to humans and animals
- can be carcinogenic
- can damage birds and their habitats
- can harm insects
- causes damage to plants.

Children, he said, are particularly vulnerable and exposure has been linked to behavioural problems, autism and 'reduced perception'.

Jensen also concluded that 'the 5G system ... poses a danger to humans' and that, as this information is known to the Danish government, it 'would incur liability'. It can be inferred that the same



would apply to other governments.

The paper states, ' It is the conclusion of this legal opinion that establishing and activating a 5G-network, as it is currently described, would be in contravention of current human and environmental laws enshrined in the European Convention on Human Rights, the UN Convention on the Rights of the Child, EU regulations, and the Bern- and Bonn-conventions. The reason is the very significant body of scientific documentation available, showing that radiofrequent electromagnetic radiation is harmful and dangerous to the health of humans (particularly children), animals and plants. This also applies when the radiation remains within the limits recommended by ICNIRP and currently used in Denmark as well as broadly within the EU. The exact damaging effects to health from 5G are not known, since the system is not exactly defined, though given the background of the current research on the effects of radiofrequent electromagnetic radiation on, e.g. the bodies of humans and animals, including the provocation of DNA damage and oxidative stress, it appears highly unlikely that it would not lead to similar harm as the current systems, particularly since it is based on the same basic form of radiation.'

[https://drive.google.com/file/d/1ArfyCrCD\\_ZFb1gp0OhuTBdZSC9t9tJ9R/view](https://drive.google.com/file/d/1ArfyCrCD_ZFb1gp0OhuTBdZSC9t9tJ9R/view)

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# French mobile phone laws

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## French authorities will introduce stricter regulations on mobile phones to reduce risks to users.

In a media release of 25 October, three French agencies announced that the government would introduce stricter regulations to ensure that the public is informed about emissions from mobile phones and about how to reduce from them.

The Ministers of Ecological and Solidarity Transition, Solidarities and Health and Economy and Finance reported that they will be undertaking a number of actions that will meet the recommendations of the French Agency for Food, Environmental and Occupational Health & Safety (ANSES). They will be conducted with the support of the National Frequency Agency (ANFR). They are as follows.

- France will ask the European Commission to reinforce the requirements for new mobile phones on the market. As recommended by ANSES, the Government will request that the compliance tests be carried out in contact with the phones, and not 5 mm away, as is currently the case, so that they are more representative of the actual exposure to users.
- The ANFR will develop informative tools for mobile phone users.
  - The mobile application "Open Barres" will be completed by the end of the year to allow each user to know the emissions of his mobile phone model.
  - The recommended usage distances will also be indicated on the ANFR website ([data.anfr.fr](http://data.anfr.fr)), which already mentions the distances for the telephones checked, as well as the 'OpenBarres' application. Assuming that manufacturers cooperate, these will also be available by the end of the year.
- The Government will bring together major manufacturers to undertake a voluntary process to update the software of models released before the application of recent, more restrictive emission standards.
- ANFR's control of products on the market will be increased by 30% in 2020.
- The Government also reminds users of six appropriate behaviours to adopt when using a mobile phone to reduce exposure to radio frequencies.
  1. Use a hands-free kit instead of holding the phone against the head.
  2. Text rather than call.
  3. Make calls from areas with good reception.
  4. Avoid holding your phone against the ear when using transport.
  5. Choose a mobile phone with a low specific absorption rate (SAR).
  6. Avoid long conversations on a mobile phone.

Press Release, Ministry of Transition, Solidarities, Economy and Finances, 25.10.19, <https://translate.google.com/translate?hl=en&sl=fr&tl=en&u=https://solidarites-sante.gouv.fr/actualites/presse/communiqués-de-presse/article/le-gouvernement-agit-pour-limiter-l-exposition-aux-emissions-de-certains>



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# Cyprian doctors say 5G a risk

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Two scientific bodies express concerns about 5G.

The Pancyprian Medical Association and the National Committee on Environment and Child Health are calling on the government to implement precautions to protect people from 5G. In a joint statement, published in September, the agencies expressed 'deep concern' about the amount of additional exposure 5G will bring and the potential additional health problems it could cause.

One of the major problems associated with 5G, they said, is the lack of reliable studies showing that it is safe and the lack of data about how the population will be exposed.

'Who will be responsible for any immediate and especially long-term health impacts?' they asked.

The statement calls on Parliament to:

- provide estimates of exposure, documentation that guarantees health and effective methodology for measuring, reporting and controlling exposure
- establish legislation to reduce people's exposure and protect children
- create 5G-free zones in kindergartens, schools and playgrounds
- use fibre optics for essential high-speed uses, such as medical applications

*(Continued on page 8)*

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## Goodbye EMERG

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The Electromagnetic Energy Reference Group (EMERG), hosted by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), has been disbanded.

The Group, which has been operating since 1997, was comprised of representatives from the government, the telecommunications industry and the community and served as a forum for discussing perspectives on electromagnetic radiation and health.

According to Dr Rick Tinker, Director of Assessment and Advice at ARPANSA, 'The Electromagnetic Energy Reference Group (EMERG) terms of reference expired in November 2019. ARPANSA conducted a review of the group's activities and purpose during 2019, including interviews with active members. The review found that EMERG was no longer fit for purpose and was not meeting the original objectives. ARPANSA made the decision to close EMERG to ensure efficient allocation of resources and more effective stakeholder engagement in the area of electromagnetic energy health and safety. We will be working with the outgoing members of EMERG to determine a path forward for broader stakeholder engagement and public communication on this topic.'

EMR Australia has asked to be updated about the proposals for broader stakeholder engagement.

### 5G Inquiry update

**Submissions to the parliamentary inquiry on 5G are now available online at:**

[https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Communications/5G/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Communications/5G/Submissions)

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## Irish council says NO to 5G

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The Irish county of Clare has taken a stand against the rollout of 5G networks due to its concern about potential health problems. The Council approved the following motion.

‘Clare County Council In light of a recent appeal to the EU from 180 scientists and doctors from 36 countries warning about the danger of 5G, which will lead to a massive increase in involuntary exposure to electromagnetic radiation, that Clare County Council in exercising its responsibility to protect the environment and the public from harm:-

1. Opposes the roll-out of 5G in the County; and
2. Calls on CommReg to deny licensing for its roll-out; and
3. Calls on the Minister for Communication, Climate Change and the Environment, to establish a working group to establish the facts about the radiation impact of 5G on the environment & human health due to the current questionable scientific knowledge. ‘

The motion has since been raised by other Irish councils concerned about 5G as well.

<https://www.clarecoco.ie/your-council/meetings/minutes/clare-county-council-minutes/2019/june-monthly-meeting-2019-33830.pdf>, p 14.

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## French NGOs say NO to 5G

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A group of non-government organisations in France has called for a stop to the rollout of 5G in France because of the significant risk it poses.

Collectively, the NGOs said that digital technology already leads to physical and mental health problems, negative impacts on the environment, waste of precious minerals (used to manufacture digital devices), involves huge consumption of energy and loss of personal privacy and freedom. 5G will exacerbate these problems, the NGOs said.

In their statement, they wrote, ‘Developing a system that will cause lasting changes to the electromagnetic environment of our planet, to interactions between people and machines, and the wider workings of our society cannot be possible without deep consideration and debate from citizens.’

<https://www.connexionfrance.com/French-news/French-NGOs-demand-stop-to-rollout-of-out-of-control-5G-network-in-France>

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## Encinitas says NO to 5G

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The city of Encinitas in San Diego has introduced restrictions on locations where 5G antennas can be placed. In late October, councillors unanimously voted for changes to the city’s 5G wireless policy in support of residents’ concerns about the radiation the antennas will emit.

The amended policy prevents 5G antennas being installed in residential zones, parklands, fire risk areas and within 500 feet (152 metres) of a day care centre, school or residence in a non-residential zone.

However, telecommunications companies will have the right to apply to council for an exemption to the policy.

*San Diego Union Tribune*, 31.10.19.

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## 5G safety in question

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Is 5G safe for health? Not necessarily, according to scientists writing in the September issue of the International Journal of Environmental research Public Health.

M Simko and M Mattsson reviewed 94 studies on 5G signals in the frequency range 6 to 100 GHz. They found that 80% of the animal studies and 58% of the cell studies found effects from exposure.

The authors concluded that 'the available studies do not provide adequate and sufficient information for a meaningful safety assessment' and recommended that more research be conducted.

Simko, M and Mattsson, MO, '5G Wireless Communication and Health Effects – a Pragmatic Review Based on Available Studies Regarding 6 to 100 GHz', *Int J Environ Res Public Health*, Sep 13;16(18) , 2019.

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## Oregon bans mobiles in schools

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Oregon has introduced new legislation restricting students' use of mobile phones to reduce their exposure to radiofrequency radiation.

The bill (SB 283) states:

'The Oregon Health Authority shall:

- (a) Review peer-reviewed, independently funded scientific studies of the health effects of exposure to microwave radiation, particularly exposure that results from the use of wireless network technologies in schools or similar environments; and (b) Report the results of the review to an interim committee of the Legislative Assembly related to education not later than January 2, 2021.
- The review described in paragraph (a) of this subsection must, at a minimum, consist of a literature review of peer-reviewed, independently funded scientific studies that examine the health effects of exposure to microwave radiation on children.
- The Department of Education shall develop recommendations to schools in this state for practices and alternative technologies that would reduce students' exposure to microwave radiation.'

The bill was unanimously approved by the State Senate and the Oregon House of Representatives passed it with an overwhelming majority (50 to 8) on 25 June 25.

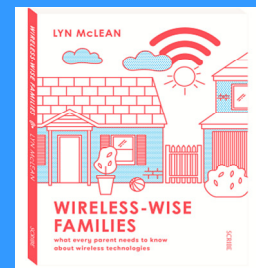
Oregon Governor Kate Brown signed the bill on 9 August.

<https://olis.leg.state.or.us/liz/2019R1/Downloads/MeasureDocument/SB283>

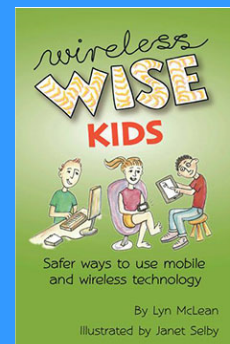
### Books by Lyn McLean



*The Force*



*Wireless-wise Families*



*Wireless-wise Kids*

for everything you need  
to know about keeping  
your family EMR-safe

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## Mobile phones damage chromosomes

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Mobile phone radiation causes genetic damage and exposure should be reduced. This is the conclusion of a paper by Dr Dimitris Panagopoulos from Greece, writing in the September issue of the journal of General Physiology Biophysics.

Panagopoulos obtained blood samples from six healthy adult volunteers aged 28 to 42 who used a mobile phone for no more than 30 minutes a day. He exposed the blood samples to radiation from a 3G UTMS mobile phone held at a distance of 1 cm.

He found that exposure increased the number of chromosome aberrations in the blood of all six volunteers and exposed blood had 100 to 275% times the number of aberrations of unexposed controls. The results showed differences in individual sensitivity.

The chromosome damage occurred at non-thermal levels of exposure – ie at exposures too low to cause the heating effects against which Australian and international standards are designed to protect. By contrast, 5G can produce both thermal and nonthermal effects, he said. 'This may represent a great danger for public health, which the health authorities should carefully investigate before allowing 5G installation.'

The results are consistent with those of previous studies by Panagopoulos and his team. They are also in line with results by other researchers who found chromosome aberrations in people using mobile phones and those living near a base station.

Radiation can contribute to the chromosome damage seen in these studies by disrupting the voltage-gated ion channels on cell membranes or causing oxidative stress.

'The present study – in line with previous studies of my group – indicates that people should necessarily reduce exposures to MT EMFs as much as possible by making prudent use of this technology and reduce drastically the number and duration of calls, make use of wired headsets (especially air-tube headsets) or the loudspeaker during calls and keep the device at the greatest possible distance from the body, not carry the mobile phones on their bodies while they are turned on, keep them at the greatest possible distance during the day, and switch them off during sleep,' he wrote.

Panagopoulos, D, 'Chromosome damage in human cells induced by UTMS mobile phone telephony radiation,' *Gen Physiol Biophys* 38, 445-54, 2019.

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## Mobiles damage DNA

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Mobile phone radiation causes DNA damage, according to the largest and best-conducted animal study to date.

Researchers from the US National Toxicology Program (NTP) exposed mice and rats to mobile phone radiation of either GSM or CDMA frequencies. They found significant DNA damage in the frontal cortex and hippocampus of the brain in male rats and in leukocytes of female mice. Some other 'equivocal' DNA damage was seen in other tissues.

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*'Exposure increased the number of chromosome aberrations in the blood of all volunteers'*

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YOUR  
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The researchers concluded that 'exposure to RFR is associated with an increased in DNA damage.'

The results of the study were made public prior to publication and have been reported in the December 2016 issue of *EMR and Health*.

Smith-Roe, SL et al, 'Evaluation of the genotoxicity of cell phone radiofrequency radiation in male and female rats and mice following subchronic exposure', *Environ Mol Mutagen*, Oct 21, 2019.

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## Screen time and brain structure

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Want your children to perform well at school? Better limit their screen time!

A new study from the US has found that preschool children who were higher users of screen-based media had structural changes in the brain that could interfere with learning,

The researchers studied 47 pre-schoolers aged three to five who were given cognitive tests and a diffusion tensor MRI. Additionally, parents completed a survey on their children's access to and use of screen-based media.

The results showed that children who had greatest on-screen time and access had:

- lower scores on language and literacy
- less integrity of white matter in the brain in areas involving language executive function and literacy skills and this deficit could affect myelination.

The authors suggested that more research is needed to better understand the effects of screen time on young children's developing brains.

Hutton, JS et al, 'Associations Between Screen-Based Media Use and Brain White Matter Integrity in Preschool-Aged Children', *Jama Pediatr* 4 Nov, 2019.

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## Israel bans phones in schools

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The Israeli Ministry of Education has issued new guidelines restricting primary students' use of mobile phones at school. Under the new system, students will be able to use mobile phones on the way to and from school, but will be required to keep them in their bags during school hours, including breaks.

In his letter to educators, the Minister said that, while mobile phones have their uses, it was important for children to interact directly with their environment, develop interpersonal skills in person-to-person interactions and to be physically active.

The letter also recommends educational programs for parents to increase their awareness of the issues related to their children's use of mobile phones. They will have the aim of 'developing awareness and increasing the presence and involvement of parents regarding the conduct of their children online.'

The Minister is also planning to restrict mobile phone use in middle schools.

[https://www.mako.co.il/news-education/2019\\_q4/Article-f96dd1640004e61026.htm](https://www.mako.co.il/news-education/2019_q4/Article-f96dd1640004e61026.htm)

### Mobile phone protection

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- ban the use of wireless internet and wireless devices such as tablets and mobile phones in kindergartens and primary schools, following the example set by the French government.
- conduct an educational ('Right-to-Know) campaign informing the public about the potential health impacts of exposure and encouraging them to curb exposure.

'We are particularly concerned about abusing IoT (Internet Of Things) with unnecessary applications (eg mobile home screening, baby diaper change constantly irradiating the child). The public MUST be informed that this will be done with significant additional radiation in the home,' the statement said.

<http://paidi.com.cy/common-positions-5g-2019/> (in Greek)

## Skin problems?

Do you have red or itchy skin?

Here's something to think about.

A reader told us about some problems his mum had been experiencing.

For ten years, she suffered with psoriasis and her itchy scalp drove her mad. She also had red eyelids that bothered her (but when she visited her specialist, he told her to cover them with makeup!).

Remarkably, both of these problems disappeared within a few weeks and this is how she did it.

The woman replaced her metal-framed with plastic-framed glasses. Within a month the redness in her eyelid was gone.

She also replaced her cordless phone with a corded phone and got rid of her WiFi. Within a month, the psoriasis was gone. Without medication!

Coincidence?

We don't think so. The link between the symptoms and radiofrequency radiation is too great.

The woman's psoriasis developed ten years ago, about the time when she started to use a cordless phone, of which she was a heavy user. Metal, in her original glasses, is a conductor of radiation, whereas plastic is not.

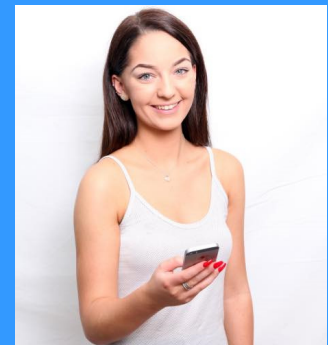


*EMR Australia would like to take this opportunity to thank all our readers for your support this year and to wish you a very happy Christmas season and new year. We look forward to keeping in touch with you in 2020.*

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