

Installation of 5G Phone Masts
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Issues around the installation of 5G masts in the Brentwood Borough, especially near residential areas, have been raised on the ground of potential health issues. This Paper aims to outline current guidance and legal challenges.

- **Current Guidance**

The International Commission on Non-Ionizing Radiation Protection (ICNIRP) is an independent organisation that provides scientific advice and guidance on non-ionising radiation. It is formally recognised by the World Health Organisation and the International Labour Organisation. The UK Health Security Agency, which is responsible for assessing risks to public health, recommends that [ICNIRP guidance should be followed](#).

In essence, ICNIRP considers **the roll out of 5G in residential area as being safe as long as exposure guidelines are appropriately followed while installing and operating the masts**. The regulations of installation and the monitoring of the exposure are however outside the ICNIRP remit.

The Government states that local authorities should [not set health safeguards that are different to ICNIRP guidelines](#) (PDF). They should also not refuse applications for mobile masts on health grounds where [ICNIRP guidelines are met](#).
<https://commonslibrary.parliament.uk/planning-rules-for-5g-masts-in-england/>

- **Legal Challenges**

On 6 and 7 February 2023 the Administrative Court heard the judicial review of the Secretary of State's alleged failure to address the evidence of risks to human health posed by 5G technology. (<https://www.burghwoodclinic.co.uk/blog/judicial-challenge-to-safety-of-5g>)

No5's Philip Rule acts for the claimants, led by Michael Mansfield KC, and instructed by Lorna Hackett of Hackett & Dabbs LLP. The case is brought by Action Against 5G and with the support of the public through Crowd Justice.

At the hearing the government argued that there is no duty to inform the public of any risks at all, because it essentially denies that there are any risks from the increased exposures or new form of radiation frequency to be used in 5G rollout. This is in keeping with its publications that have sought to reassure the public that there – categorically and conclusively – is no chance of harm arising from exposure to 5G and radiofrequency radiation (“RFR”).

The claimants’ case was outlined to the Court identifying that such a position taken by the government is not based upon the scientific report that the government itself has advanced as being the most up-to-date piece of international research. That is the “ICNIRP” (International Commission on Non-Ionising Radiation Protection) March 2020 guidelines.

The ICNIRP guidelines evidence the existence of risks, and notes that several are yet to be fully understood or proven by repetition of study or by anthropological study directly on people who are ‘guinea pigs’ for ubiquitous RFR or 5G in the real-world.

ICNIRP summarises that it concludes, (based on its very limited approach discussed above) that there are already three substantiated effects caused by exposure to radiofrequency EMFs: (i) nerve stimulation, (ii) changes in the permeability of cell membranes, and (iii) effects due to temperature elevation. For many other recorded matters, it essentially notes the jury is still out, but did not find that as yet the harm to human health has already been proven. In particular there are not yet any significant number of studies into 5G technology (which uses high frequency waves, and targeted beams and pulsation in a way earlier generations did not).

For those with disability treated by medical implant the consideration of safety given by ICNIRP, in its revised 2020 guidelines expressly do not cater for their safety. As well as those genetically or environmentally susceptible to suffer cancer or EHS in the future from the exposure to RFR, there are also existing vulnerable groups who ought to be considered and who deserve to be given information to assist them (but have not been), including:

- Those with disabilities that require medical implants with electrical currents or conductivity, including pace-makers in the heart for example. (This important issue has simply not been addressed at all by ICNIRP);
- Those with disability/injury that required the implant of metal to their body;
- Children—for instance, children’s brains absorb greater quantity of RFR, and bone marrow exposure is greater; as well as their lifespan exposure being of longer duration;
- Those who presently suffer disability arising from existing cancer;
- Those presently suffering pre-cancerous conditions;
- Those exposed habitually to radiation in the workplace, of particular levels or longevity;
- Those with immunosuppressant conditions;
- Those suffering from ME;

- Those suffering from EHS.

The Court was shown, for example, that the International Agency for Research on Cancer has classified both ELF magnetic fields and RF EMFs as possibly carcinogenic to humans. Exposure to non-ionising radiation including radiofrequency is notably a recorded disease or illness recognised by the WHO, since 2005, in the International Classification of Diseases, ICD-10 (even if the precise cause is not yet understood or known). Studies ICNIRP have identified, state certain effects that might prove harmful and their substantiation by further study is awaited. Limitations on current knowledge are relevant when assurances are sought to be given by the government.

The Court of Appeal previously granted permission for the case to proceed on the grounds that challenge:

- The failure to provide adequate or effective information to the public about the risks and how, if it be possible, it might be possible for individuals to avoid or minimise the risks;
- (a) The failure to provide adequate and sufficient reasons for not establishing a process to investigate and establish the adverse health effects and risks of adverse health effects from 5G technology and/or for discounting the risks presented by the evidence available; and/or (b) failure to meet the requirements of transparency and openness required of a public body.

These grounds advance a breach of the Human Rights Act 1998 by omissions and failings in violation of the positive obligations to protect human life, health and dignity, required to be met by Articles 2, 3 and/or 8 of the European Convention on Human Rights.

Judgment is awaited from the Administrative Court in due course.

- **Further supporting evidence for safety of 5G Masts**

World Health Organisation

To date, and after much research performed, no adverse health effect has been causally linked with exposure to wireless technologies. Health-related conclusions are drawn from studies performed across the entire radio spectrum but, so far, only a few studies have been carried out at the frequencies to be used by 5G.

<https://www.who.int/news-room/questions-and-answers/item/radiation-5g-mobile-networks-and-health>

Tissue heating is the main mechanism of interaction between radiofrequency fields and the human body. Radiofrequency exposure levels from current technologies result in negligible temperature rise in the human body.

As the frequency increases, there is less penetration into the body tissues and absorption of the energy becomes more confined to the surface of the body (skin and

eye). Provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated.

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) - Australian Government's primary authority on radiation protection and nuclear safety

There are no established short term or long term health effects to people or the environment from radio waves at the power levels used for 5G.

5G will initially use the same type of radio waves as 4G. In the future, 5G will use 'millimetre waves'. Millimetre waves cannot travel as far as those used in 4G, so more small cell base stations are required