# NATIONAL ASSEMBLY

**FOR WRITTENREPLY**

**QUESTION NO. 1937**

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**(INTERNAL QUESTION PAPER NO. 32)**

**Mrs E R Wilson (DA) to ask the Minister of Health:**

Whether his department has investigated the effect that electromagnetic exposure may have on the health of young children; if not, why not; if so, what are the relevant details?

###### NW2453E

**REPLY:**

The National Department of Health is guided by the World Health Organization (WHO) with regards to such matters.

WHO established the International Electromagnetic Fields (EMF) Project in 1996. The project investigates the health impact of exposure to electric and magnetic fields in the frequency range 0-300 GHz and advises national authorities on EMF radiation protection[[1]](#footnote-2).

Scientific studies suggest that EMFs are unlikely to be harmful at the levels normally found in homes, although there is some uncertainty regarding certain health effects[[2]](#footnote-3). These primarily relate to a possible, small increase in the risk of childhood leukeamia associated with high exposure to extremely low frequency electromagnetic forces (ELF-EMFs) which have been identified in some studies – these findings have suggested that there may be a small increase in risk of childhood leukaemia at higher than usual magnetic field exposures in homes, some of which are near to large power lines. It is estimated that 2 to 5 cases from the total of around 500 cases of childhood leukaemia per year in the United Kingdom could be attributable to magnetic fields. The types of studies that investigate these risks face many difficulties, including the possibility of chance, bias and the presence of confounding factors that may confuse the findings. Importantly there is no known mechanism or clear experimental evidence to explain how these effects might happen.

Current concerns are primarily focused on EMFs associated with 5G radiofrequencies (these are different to ELF-EMFs). Although a large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk, to date, no adverse health effects have been established as being caused by mobile phone use. The radiofrequency electromagnetic radiation that mobile phones or phone masts transmit and receive is non-ionising and is very weak. This non-ionising radiation does not have enough energy to damage DNA and cannot directly cause cancer. 4G or 5G networks differ in that they use higher frequency waves than older mobile networks, but they still do not have enough energy to damage DNA to cause cancer.[[3]](#footnote-4)

WHO advocates for further research into the possible long-term health impacts of all aspects of mobile-telecommunications. It also develops public information materials and promotes dialogue among scientists, governments, and the public to increase understanding around health and mobile communications. WHO is conducting a health risk assessment from exposure to radiofrequencies, covering the entire radiofrequency range, including 5G, to be published by 2022[[4]](#footnote-5).

END.

1. World Health Organization <https://www.who.int/westernpacific/news/q-a-detail/5g-mobile-networks-and-health> [↑](#footnote-ref-2)
2. Public Health England <https://www.gov.uk/government/publications/electric-and-magnetic-fields-health-effects-of-exposure/electric-and-magnetic-fields-assessment-of-health-risks> [↑](#footnote-ref-3)
3. Cancer Research UK <https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/cancer-myths/do-mobile-phones-cause-cancer> [↑](#footnote-ref-4)
4. World Health Organization <https://www.who.int/westernpacific/news/q-a-detail/5g-mobile-networks-and-health> [↑](#footnote-ref-5)