ISSN: 2754-4745

Journal of Physical Medicine Rehabilitation Studies & Reports

SCIENTIFIC Research and Community

Editorial

Open Access

Technical Electrosmog may be Risky - Also Non-Ionizing Radiation (Electro-Magnetic Fields - EMF) can Damage the DNA

Doepp Manfred

HolisticCenter, 13 Haupt St., Abtwil 9030, Switzerland

***Corresponding author**
Doepp Manfred, HolisticCenter, 13 Haupt St., Abtwil 9030, Switzerland.

Received: December 14, 2023; **Accepted:** December 15, 2023; **Published:** December 27, 2023

Introduction

It is an accepted fact that ionizing radiation such as X-rays and gamma radiation is harmful to the body and significantly increases the risk of cancer. This is explained by the fact that the wavelength of ionizing radiation is short and the frequencies are high. Their energy is strong enough to directly break the electron pair bonds that hold DNA together.

However, contrary to popular belief, most of the damage occurs not because the ionizing radiation directly breaks the electron pair bonds of DNA, but because the radiation interacts with the cell water and, in particular, the cell nucleus. When the ionizing radiation hits the water in your cell nucleus, it forms dangerous hydroxyl radicals. These cannot travel long distances. But because the radiation causes these free radicals to form in the cell nucleus right next to the nuclear DNA, they can cause damage to the DNA. This is called indirect ionization, and it is responsible for much of the damage that ionizing radiation does to DNA.

Ionizing Radiation and EMF Damage DNA in a Similar Way

While it is true that non-ionizing radiation, such as that emitted by cell phones, transmitters and WLAN, is of a lower frequency than ionizing radiation and does not have sufficient energy to create hydroxyl radicals, it is not true that non-ionizing radiation cannot damage DNA. It can, in fact, by producing peroxinitrite and, in the next step, carbonate radicals. As it turns out, peroxinitrite production was the missing piece of the puzzle that explains why non-ionizing radiation can be just as damaging as ionizing radiation.

Evidence

In 2008, researcher Franz Adlkofer worked for a study using a comet assay, a highly sensitive test for DNA damage. He found that very weak EMF exposure at 1.8 GHz produced DNA breaks in large quantities.

We now know why EMF radiation can lead to exceptionally high peroxinitrite concentrations: The process occurs in three steps, and each leads to massive amplification. With three amplifying steps in succession, a very small output signal can lead to a large response.

If the cells' voltage-gated calcium channels are open, they allow about a million calcium ions per second to flow into the cell. The higher calcium concentration in the cells activates the synthesis of nitric oxide and superoxide. Peroxinitrite forms in proportion to the result of nitric oxide concentration times superoxide concentration.

Conclusion

Among the most vulnerable tissues are the brain, heart, and reproductive organs - the very tissues that are most affected when we are exposed to EMF. This is probably why neuropsychiatric diseases and neurodegenerative diseases such as Alzheimer's have exploded over the past two decades, at the same time that fertility rates have declined. It is thus an illusion that EMF are not harmful. We are putting our future at risk with the use of 5G electrosmog, radiation comparable to that used by the microwave oven which has long been used for military purposes.

References

1. https://izgmf.de/scripts/forum/index.php?mode=thread&id=66817
2. https://www.naturstoff-medizin.de/artikel/wie-emf-strahlung-ihrem-koerper-schadet/

Citation: Doepp Manfred (2023) Technical Electrosmog may be Risky - Also Non-Ionizing Radiation (Electro-Magnetic Fields - EMF) can Damage the DNA. Journal of Physical Medicine Rehabilitation Studies & Reports. SRC/JPMRS-206. DOI: doi.org/10.47363/JPMRS/2023(5)179