



Vodacom Group's position on mobiles and health

Mobile phones transform people's lives and have over the years improved communication worldwide by creating access to digital services and enabling economic development. Hence safeguarding the health and safety of our customers, employees and the public is crucial. Communities are concerned about exposure to electromagnetic field (EMF) through their mobile devices and base stations. Electric fields are produced by voltage and magnetic fields by electrical current required for all electrical equipment.

In practical terms, the mobile device converts voice and data messages into radio waves, which are part of the electromagnetic wave spectrum. The radio waves are transmitted as electrical signals through a network of base stations. Each base station has a cabinet and antennas to send and receive communication. The antennas are usually fixed to a support structure such as a mast. Base stations relay signal through cables, or a microwave connection, to a core switching center, from where it is routed to its destination using the same technology.

The public has concerns regarding EMF emissions from network masts located in public areas such as open fields, near homes and shopping malls and communities and are interested in how Vodacom manages EMF. Vodacom is therefore responsible for ensuring network equipment (especially masts) and mobile phone handsets operate within safe levels of EMF. In order to ensure that our equipment and devices operate within safe levels, the national exposure guidelines that describe this process can be found on the Vodacom website. Furthermore, the Vodafone Group ensures that the Chief Technology Officer of other operating markets operates responsibly to ensure compliance to the EMF standards. Compliance of our branded devices to safety tests such as Electromagnetic Compatibility and Specific Absorption Rate (SAR) test that are based on the European Telecommunication Standards Institutes (ETSI).

Vodacom further monitors and assesses the latest international research and scientific studies, which are compliant to the following:

- International Commission on Non-Ionising Radiation Protection (ICNIRP);
- International Telecommunication Union (ITU);
- World Health Organisation (WHO);
- Institute of Electrical and Electronics Engineers (IEEE); and
- European Union (EU) standards.
- National exposure guidelines and regulations

The scientific studies into the effects of radio waves on health have agreed there is no evidence that the use of mobiles or base stations result in adverse health effects when operated within guideline safety limits. "In a recently published factsheet titled: Electromagnetic fields and public health: mobile phones, the WHO stated that "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."

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The department underlines the international EMF project hosted a workshop in 2005 aimed at considering the possible health consequences of the emissions from cellular base stations and wireless networks. The outcome of the workshop was that the very low exposure levels and research results provide no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects.

The WHO fact sheet that was published in 2011 stated that no adverse health effects have been established as being caused by mobile use. The department provides that, presently, there is no confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the public would typically experience in the vicinity of a cellular base station. Therefore, the department is satisfied that the health of the public is not being compromised by their exposure to the microwave emissions of cellular base stations. With this being, the department stipulates that local and other authorities do not and should not attempt to set any restrictions with respect to parameters (from a public health point of view).

The department has provided that based on the results of numerous global and local surveys, the experience has been that the exposure to base station EMF at ground level is typically in the range of between 0.001 – 1.0% of the afore-mentioned ICNIRP guideline limits.

Lastly, the department advises that all concerned (government department, industry or public) that voluntary compliance with the afore-mentioned ICNIRP exposure guidelines is the recommended and science-based way to deal with any situation involving human exposure to the non-ionising electromagnetic fields emitted by cellular base stations and handsets.

Group Corporate Affairs is responsible for engaging with regulators, communities and other stakeholders on the subject of mobile devices, environment and health with the objective of addressing any concerns raised. Our employees and contractors who extensively work in our networks and are exposed to any health and safety risks are required to embark on an annual compliance training and certification as a precautionary measure.

For more information, please visit to our website on <https://www.vodacom.com/mobiles-masts-and-health.php>

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