

Health & Safety

Who Are We:

The National Telecom Regulatory Authority (NTRA) was established in 1998. The NTRA's legislative and regulatory framework has been defined pursuant to the Telecom Regulation Law No. 10 of 2003, that stipulated that the NTRA is a national authority competent to regulate and manage the ICT sector on the basis of fundamental principles, including, transparency, free competition, universal service, consumers' rights protection and non-monopolistic practices.

Chief among NTRA's goals are the provision of high-quality telecom services at the most affordable prices, in addition to the exertion of all efforts to enhance the services, keeping abreast of the state-of-the-art technologies and huge advancements in ICT field. Thereupon, and in implementation of NTRA's main goals, the Consumers Rights Protection Committee (CRPC) was formed in August 2004. It allows all telecom service users to communicate and interact directly with all telecom users by launching awareness campaigns and taking various measures. The CRPC, chaired by NTRA's Executive President, comprises notable public figures and convenes regularly.

In order to activate and fulfill the rights of every user to be provided with high-quality services, get clear and all-inclusive information about them and obtain health and environmental parameters, the NTRA established the Call Center. NTRA's Call Center receives complaints, inquiries and technical complaints of service failure from all users in the A.R.E., through the hotline (#155) and the free number (08003330333). It acts as a second-tier or second level for examining and solving such complaints, around the clock, in case the subscriber does not have his problem solved by the service provider.

To know the latest and most important ICT news on the local and international levels in addition to all issues related to the telecom market in Egypt, you can visit NTRA's website: www.tra.gov.eg. You can also address the NTRA through the following address: Smart Village, B4, K 28 Cairo-Alexandria Desert Road, Giza, A.R.E.,

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Youtube: <http://www.youtube.com/user/CRPCNTRA>

Facebook: <https://www.facebook.com/CRPC.NTRA>

Twitter: <https://twitter.com/crpcntra>

The NTRA addresses health and environmental impacts of telecom equipment and systems by:

- Issuing specifications and conditions of the telecommunication network installations in A.R.E.
- Drafting the health and environmental standards of the telecommunication equipment used in A.R.E.

Article (6) of the Telecom Regulation Law No. 10/ 2003 stipulates, *“The NTRA shall be competent to set the technical rules for health and environmental safety that should be pursued when installing, operating and using telecommunication networks and following up on their execution and operation in accordance with the standards set forth as agreed upon with the ministries and the concerned entities. These standards will be formulated pursuant to resolutions issued by the concerned ministers and the heads of the aforementioned entities. These decrees will be published in the official Egyptian Gazette (Al-Waqa'e Al-Misrya).”* Within the framework of NTRA’s responsibilities and mandates set forth in the law, the NTRA has emphasized that there is no evidence that the mobile phone stations, conforming to the Egyptian codes and standards, harm the human being’s health.

There has been a lot of debate raised lately about the effect of these stations on human health. Many viewpoints depended on some statistics that did not represent scientific facts. In this respect, we would highlight the following facts:

- The Mobile Radio Base Stations operate within the frequency band 900 MHz-1800 in the scope of the non-ionized electromagnetic waves.
- Within the framework of the Egyptian government’s keenness to protect human health, the Ministry of Communications and Information Technology (MCIT), in collaboration with the Ministry of Health and Population, and the Ministry of State for Environmental Affairs, formed a Specialized Committee competent to study the effect of the human being’s exposure to the electromagnetic waves emitted from the Mobile Radio Base Stations and towers, and put the regulations needed to install these networks in the populated areas. The Committee concluded that the specialized international organizations working in this concern, on top of which comes the World Health Organization (WHO), have laid down the allowed limits of the flux density of the power emitted from the electromagnetic waves, to which the human being can be safely exposed. It ranges between 0.40 and 0.57 mW/cm² at a distance ranging between 3.47 and 4.46 meters (the safe distance). Moreover, the Committee approved the power flux density as amounting to 0.40 mW/cm² at a distance of 6 meters, taking into consideration the maximum safety limits and thresholds and the social dimension.

- As per the aforementioned study, the three concerned ministries laid down several protocols that include the Egyptian Code to regulate and control the installation of the mobile stations among masses of population. The needed administrative measures were taken so that these stations will not be authorized to operate except after the NTRA's specialized engineers have inspected them, made the measurements needed for ensuring their abidance by the set protocols and issued conformity certificates to them.

The Egyptian Specifications of Macrocell Station Protocols are as follows:

- The antennae height should be 15 to 50 meters from the ground level.
- Only one antenna should be installed on a mast and three antennae should be installed at the same level on the same tower, provided that the distance between each level and the other is 4 meters.
- The distance between any two towers of the mobile base stations on the roof of a building should not be less than 12 meters.
- It is prohibited to install antennae on top of roofs that are not reinforced with concrete ceilings.
- The maximum magnetic power density is 0.4 mW/cm^2 at a distance of 6 meters (the safe distance).
- It is prohibited to install antennae on the roofs of hospitals to avoid any radio interference with the medical equipment.
- The distance between the antennae's main beam and the fences of the (primary-preparatory) schools should not be less than 20 meters.

"It has been proven that the mobile phone stations have no harmful impact on the human being's health in case they conform to the Egyptian codes and standards."

The Applicable Safety Measurements Implemented by International Organizations are as follows:

| ENTITY | VALUE (MW/CM ²) | DISTANCE(M) |
|---|-----------------------------|-------------|
| Federal Communications Commission (FCC) | 0.57 | 3.47 |
| International Commission on Non-Ionizing Radiation Protection (ICNIRP)/ World Health Organization (WHO) | 0.4 | 4.4 |
| Institute of Electrical and Electronic Engineers (IEEE) | 0.57 | 3.47 |
| American National Standardization Institute (ANSI) | 0.57 | 3.47 |
| The Egyptian Standards and Specifications as per the Stations Roll-out Protocol | 0.4 | 6 |

On making a simple comparison between the international and Egyptian specifications, we will find out that the Egyptian Code and Standards are stricter than the international protocols in order to take all the precautions needed to protect the Egyptian citizen's health.

It is worth mentioning in this respect that the report issued by the Supreme Council of Education, Scientific Research and Technology and titled: "The Clinical Observations of the Health Impacts of Electromagnetic Emissions" has mentioned the following: ***"Many scientific clinical researches agreed that it has not been proven that the exposure to the electromagnetic emissions less than 0.5 mW/cm² has any harmful effect on the human being's health"***.

As per the field measures and studies of the stations, ever since their installation in 1996 until now, the average electromagnetic power density is 0.0003 mW/cm² , that is, less by thousandfold than the globally accepted limits.

It is evident from the afore-mentioned facts that any notions and claims that are not based on scientific facts might raise the public concerns, hence creating the public tendency to antagonize this technology. This negatively affects the telecommunications development and investment size in this field.

Do you know:

- The TV sets, clothes iron, electric sweepers, PCs and other household appliances emit electromagnetic radiations more than a mobile phone station.
- The mobile stations are installed in residential cities in all capitals throughout the world. They are constructed in city squares and on the rooftops of hotels, clubs, hospitals, sport stadiums, bus and railway stations and airports, etc.
- Many countries obligate the owners of buildings and properties, upon obtaining construction permits, to designate a room on the rooftop of their buildings for the installation of a mobile phone station, if needed. This is also stipulated in the terms of the constructional terms and conditions of the property.
- The radiation emitted from a mobile station is less than the radiation emitted from the mobile devices and handsets used continuously by the users.

Questions & Answers:

- ✚ Q: Is it scientifically proved that the electromagnetic waves emitted from mobile stations have harmful impact on citizen's health and cause cancer or other serious diseases?

A: This has not been scientifically proved to date, as no scientific research center or organization throughout the world has confirmed it.

✚ Q: Who can assure the citizens that the electromagnetic waves do not cause diseases?

A: This is ensured and guaranteed by the World Health Organization (WHO) which monitors these impacts of these waves globally. In fact, any country cannot conceal this or any relevant fact if proved, as is the case in the epidemic diseases (such as the avian (bird) and swine flus, etc.). In addition, in the context of the technological and information revolution, no scientific fact whatsoever can be concealed in any country especially if it affects the citizens' health throughout the world.

✚ Q: Is it possible to discover the danger and harm of the electromagnetic radiations after the passage of several years of usage?

A: This is a global technology that has not been developed in Egypt; rather it has been used by the developed countries since many years, even before us. It has not been proved yet that it has any negative impact on the citizens' health, and in case any scientific research discovers any harms or issues a scientific warning in this regard, all developed countries will stop using them immediately.

✚ Q: Why the number of mobile phone stations, installed in cities, has not been reduced? Why aren't they installed outside the residential areas?

A: This technology depends on the deployment of stations with low levels of electromagnetic radiation emissions that allow for their installation in the residential blocks and areas in order to provide high-quality services to the citizens. In addition, it has also been scientifically proved that in case the number of stations is reduced, the electromagnetic radiation emitted from the mobile phone and close to the user's head will be increased. Similarly, the increase in the number of mobile stations leads to the reduction of the electromagnetic radiations emitted by the mobile phone and to which the person head and brain are exposed.

✚ Q: Why do we abstain from installing these stations on the rooftops of buildings, schools and hospitals if they are safe for citizens?

A: It should be highlighted that this measure is taken only in Egypt, as these stations are installed on the rooftops of hospitals and schools in many developed countries. Yet, In Egypt, this measure was taken after considering the citizens' concerns and feelings. In addition, the Egyptian government has taken all measures to prohibit the installation of stations on the rooftops of hospitals as a precautionary measure to ensure the non-occurrence of electromagnetic radiation interference with the devices operating in hospitals and to guarantee the high-level performance of these devices.

 **Q: What is the competent entity responsible for ensuring the implementation of the health, environmental and technical terms and conditions of those stations?**

A: The NTRA, affiliated to the Ministry of Communications and information technology (MCIT) is the entity competent to ensure the implementation of these terms and conditions. The Telecom Regulation Law No. 10/ 2003 has mandated and authorized NTRA to carry out this mission. Furthermore, the mobile stations installation protocol signed by the Minister of Health and Population, the State Minister for Environmental Affairs, and the Minister of Communications and Information Technology (MCIT) is implemented by NTRA, that is the only national competent authority undertaking this mandate. No other entity is entitled to undertake this mandate and carry out all station measurements or give the technical opinion. Nevertheless, the NTRA may be requested to review the measurements and specifications of any station, if necessary.

For Mobile, Internet and Fixed Service Users:

If you have encountered a problem with the service provider and could not solve it, call the Call Center hotline (155) and we will exert all efforts to solve your problem. The Call Center receives complaints and inquiries on a daily basis throughout the week.