



# Department of Telecom, Govt. of India

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## Ensuring Safety from Radiations : Mobile Towers and Handsets

India has adopted one of the most stringent Electro Magnetic Field (EMF) exposure norms in the world. The measures taken by the Department of Telecommunications, Government of India, are:

### Mobile Towers- EMF Radiation Norms:

- EMF exposure limit (Base Station Emissions) is lowered to 1/10th of the existing ICNIRP exposure level effective from 1st Sept. 2012. India now has one of the most stringent EMF exposure norms in the world.
- Telecom Enforcement Resource & Monitoring (TERM) Cells of DOT have been entrusted with the job of conducting audit on the self certification furnished by the Service Providers. TERM Cell shall carry out test audit up to 10% of the BTS site on random basis and on all cases where there is a public complaint.
- Telecom Engineering Centre (TEC) has revised the Test Procedure for measurement of EMF for verification of EMF compliance for BTS towers in accordance with new standards effective from 1st Sept. 2012.
- For non-compliance of EMF standards, a penalty of Rs. 5 lakh is liable to be levied per BTS per Service Provider.

### Mobile Handsets

- India has adopted the most stringent international norms for mobile handsets.
- All the new designs of mobile handsets shall comply with the SAR values of 1.6 W/kg averaged over 1 gram of human tissue w.e.f. 1st Sept. 2012.
- The mobile handsets with existing designs which are compliant with 2.0 W/kg averaged over 10 gram of human tissue, continue to co-exist up to 31st August 2013. From 1st Sept. 2013, only the mobile handsets with revised SAR value of 1.6 W/kg would be permitted to be manufactured or imported in India.
- Specific Absorption Rate (SAR) value information display on the mobile handsets like IMEI (International Mobile Equipment Identity) display. The information on SAR values to be made available to the consumer at the point of sale.
- Mobile hand set manufactured and sold in India or imported from other countries shall be checked on random basis for compliance of SAR limit after TEC SAR Laboratory is set up by end of year 2012. Test results from International accredited labs shall be acceptable in the interim period.
- All cell phone handsets sold in the market in India shall comply with relevant standards and shall be available in hand free mode.

**Myths and Facts:** Various Myths about Mobile Handsets & Mobile base stations:

Myth	Fact
Mobile phone use cause headaches.	Headaches are not related to Mobile phone use and there is no scientific evidence.
It is safer using a mobile phone in a car as the car shields from the radiation.	The RF radiation is increased by Mobile phones when used in a car to overcome the shielding.
Mobile phones cause brain cancer to the people who use it.	There is no scientific evidence that Mobile Phone can cause brain cancer.
Mobile Base stations are dangerous and one should have distance from it.	It is the antenna from which we should keep distance not from tower and that too if we are positioned facing antenna at comparable height. At the ground level, the intensity of RF radiation from base station is much less.
Nobody is investigating the health effects of Radio Frequency (RF) radiation.	The World Health Organization, many national & international organizations and independent expert groups are coordinating to investigate health effects of RF radiation.



### Precautionary Guidelines for mobile users

1. Keep distance – Hold the cell phone away from body to the extent possible.
2. Use a headset (wired or Bluetooth) to keep the handset away from your head.
3. Do not press the phone handset against your head. Radio Frequency (RF) energy is inversely proportional to the square of the distance from the source.
4. Limit the length of mobile calls.
5. Use text as compared to voice wherever possible.
6. If the radio signal is weak, a mobile phone will increase its transmission power. Find a strong signal and avoid movement, Use your phone where reception is good.
7. Let the call connect before putting the handset on your ear or start speaking and listening – A mobile phone first makes the communication at higher power and then reduces power to an adequate level. More power is radiated during call connecting time.
8. If you have a choice, use a landline (wired) phone, not a mobile phone.
9. People having active medical implants should preferably Keep the cell phone at least 15 cm away from the implant.
10. While Purchasing a Mobile Handset check the SAR value of the mobile phone. It can be searched on internet if its model number & make is known .

Most of the laboratory studies were unable to find a direct link between exposure to Radio Frequency radiation and Health. Use of mobile services is safe. The measures taken by the Government & a handbook on, Mobile Communications - Radio Waves & Safety , is available on Department of Telecom website. For more information please visit the web site: [http:// www.dot.gov.in](http://www.dot.gov.in). It is assured that the Government shall provide the best possible Telecom Service across the Country without compromising on Public safety and human health. For any query/ doubts on the emissions from particular towers, local Telecom Enforcement Resource Monitoring (TERM) cell officers at State level can be contacted.