

The exposure standard for mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the measured maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. Therefore, the closer you are to a base station antenna, the lower the power output.

While there may be differences between the SAR levels of various mobile phones, they are all required to meet the relevant limits for radio wave exposure.

What about headsets?

Headsets are very popular with mobile phone users. Their popularity is largely due to the flexibility that they provide for users.

Tests made by industry and independent laboratories have shown that head SAR levels when using a headset in its normal use position are significantly less than those produced without a headset.

Mobile phones used with or without a headset meet relevant RF exposure guidelines. If you wish to use your phone in a hands free mode, please consult your user manual for more information about available accessories.

Where can I go for further information?

There are a number of independent sources of information available to users including:

- **Royal Society of Canada**
www.rsc.ca
- **The International Commission on Non-ionizing Radiation Protection (ICNIRP)**
www.icnirp.de
- **The US Food and Drug Administration**
www.fda.gov/cdrh/ocd/mobilphone.html
- **The World Health Organization**
www.who.int/emf



What is the MMF?

The MMF is an international association of radio equipment manufacturers whose members include Alcatel, Ericsson, Mitsubishi Electric, Motorola, Nokia, Panasonic, Philips, Siemens and Sony.

The MMF produces information such as this in accordance with its purpose of developing and presenting industry positions to independent research organizations, government and other research bodies.



Mobile Manufacturers Forum

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Mobile phones

health and safety issues



Mobile Manufacturers Forum

Mobile or cellular phones are very popular in today's society. With so many people using mobile phones, it is natural that there are people asking whether they are safe. This brochure is designed to help answer this question.

Questions regarding safety

Mobile phones emit low levels of radio waves (also known as radiofrequency or 'RF' energy) when being used. Questions have been voiced as to what, if any, effect these radio waves may have on the health of the mobile phone user?

Whilst the vast majority of scientific studies have not shown any adverse health risks, there are some studies which have raised questions which need to be addressed by further research.

However, to put this into context, the effects of radiowaves have been extensively researched over many years and international experts have concluded that the existing scientific evidence does not demonstrate any adverse health effects.

What do the experts say?

World Health Organization

The World Health Organization has published a fact sheet that reviews the most recent findings.

None of the recent reviews have concluded that exposure to the RF fields from mobile phones or their base stations cause any adverse health consequences.

The United States Food and Drug Administration

The FDA has published a consumer update on mobile phone health issues.

*However, the available scientific evidence **does not** demonstrate any adverse health effects associated with the use of mobile phones.*

Royal Society of Canada

The Canadian health authorities requested the Royal Society of Canada to undertake a comprehensive evaluation of the potential health effects of RF fields.

The weight of the evidence does not support the conclusion that exposure to RF fields of the type and intensity produced by mobile telecommunications devices contributes to the production or growth of tumours in animals or humans.

What research is being undertaken?

Research into the potential health effect(s) connected with the use of radio waves has been conducted for many decades. There is also a substantial amount of ongoing scientific research being undertaken by health and scientific research organizations around the world. Considerably more than 200 studies have been initiated just to investigate whether emissions from mobile telephony equipment cause adverse health effects.

The World Health Organization continues to play an important role in the coordination of research by providing reviews and recommendations for further research. The mobile telecoms industry also funds a large number of studies in partnership with government agencies around the world.

What about children?

The health and safety of our children is of concern to all of us. A recent review has recommended restricting children's general usage of mobile phones as a precaution.

Mobile phones are designed and tested to comply with science-based guidelines including those endorsed by the World Health Organization. These guidelines take the safety of children and other segments of the population into account by providing additional margins of safety.

Many parents value mobile phones for the personal comfort and security afforded by being in contact with members of their families.

What about the SAR levels?

Comprehensive international guidelines exist governing exposure to radio waves. Mobile phones are designed to operate within the limits set in these guidelines. The limits have been developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The guideline limits include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

