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Electromagnetic Energy from Mobile Phone Base Stations and Health

What Is EME?

EME is the energy stored in an electromagnetic field. It's a factor of everyday life, emitted by natural sources like the sun and the earth, and by man-made sources operating on radio waves such as TV and radio broadcasts, baby monitors, model planes as well as mobile phone base stations.

Community Concern

Telstra acknowledges some people are genuinely concerned about possible health effects from the EME from mobile phone base stations and is committed to addressing these concerns responsibly.

Mobile Phone Base Station Safety

Telstra relies on the expert advice of national and international health authorities such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) - an agency of the Commonwealth Department of Health, and the World Health Organisation (WHO) for overall assessments of health and safety impacts.

The consensus is that there is no substantiated scientific evidence of health effects from the EME generated by radio frequency technology, including mobile phones and their base stations, that complies with national and international safety guidelines.

The ARPANSA conclusion on mobile base station safety states: (ARPANSA Web site July 2003)

"No adverse health effects are expected from continuous exposure to the RF radiation emitted by the antennas on mobile telephone base station towers."

The WHO position on mobile phones, base stations and health, reissued in January 2002 states:

"None of the recent reviews have concluded that exposure to RF (radio frequency) fields from mobile phones and their base stations cause any adverse health consequences. However, there are gaps in knowledge that have been identified for further research to better assess health risks"

Telstra has strict procedures in place to ensure its base stations comply with these guidelines, and Telstra supports ongoing research to advance the body of scientific knowledge on EME.

EME Safety Standard.

In Australia, the EME safety standard is set by ARPANSA, and regulated by the Australian Communications Authority (ACA) - the independent regulator of the nation's telecommunications industry.

It is based on careful analysis of the scientific literature (both thermal and non-thermal effects) and is designed to offer protection against identified health effects of EME with a large in-built safety margin. The standard covers EME emissions from all antennas on a single tower, or group of towers.

Compliance with all applicable EME standards is part of Telstra's responsible approach to EME and mobile phone technology.

EME Levels

Independent measurements have shown that mobile phone base stations operate at relatively low power.

A study conducted by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) published in 2000 found that digital mobile phone base stations emit levels of EME typically hundreds and sometimes thousands of times below the Australian safety standard regulated by the Australian Communications Authority (ACA).

The World Health Organisation (WHO) said in its statement on base station safety (June 2000):

Both measurements and calculations show that RF (radio frequency) signal levels in areas of public access from base stations are far below international guidelines, typically by a factor of 100 or more.

Telstra's Responsible Approach to EME

Telstra has a responsible approach to EME, which continues to be demonstrated through compliance with relevant standards and comprehensive policies designed to protect the health and safety of the public, and people who work with radio frequencies.

Telstra operates responsibly in the design, operation and management of mobile base stations in order to minimise community impact and comply with the industry code-of-practice, (ACIF Code) for base station deployment and operation.

Telstra also maintains a comprehensive EME research program, monitors international research developments and provides assistance to other research institutions to advance the body of scientific knowledge on EME.

Further Information

Telstra suggests that people wanting further information on EME may care to contact the following organisations or visit their web sites:

World Health Organisation

[World Health Organisation: "Electromagnetic fields and public health: Mobile Telephones and Their Base Stations"](http://www.who.int/inf-fs/en/fact193.html) (<http://www.who.int/inf-fs/en/fact193.html>)

Commonwealth Department of Health (ARPANSA)

http://www.health.gov.au/arpansa/eme_pubs.htm

Australian Communications Authority (ACA)

http://www.aca.gov.au/stds_compliance/electromagnetic_radiation/index.htm

Australian Mobile Telecommunications Association (AMTA) & Mobile Carriers Forum (MCF)

<http://www.amta.org.au>

<http://www.mcf.amta.org.au/>

Mobile Manufacturers Forum (MMF)

http://www.mmfa.org/files/files/tech_indx.htm

Medical College of Wisconsin

<http://www.mcw.edu/gcrc/cop/cell-phone-health-FAQ/toc.html>

Telstra Contact

For additional information please contact Mike Wood, Telstra EME Coordinator, 1300 368 387.

<http://www.telstra.com.au/ememanagement>

<http://www.telstra.com.au/mobile/life/index.htm>