



Health research about electromagnetic energy

Electromagnetic energy (EME) is used to send and receive voice, data and video information. Travelling in the form of electromagnetic waves, EME is also known as electromagnetic radiation or electromagnetic fields.

EME does not have enough energy to cause direct damage to molecules, such as DNA, that could impact human health.

Health and safety research

The Australian Government has a research and information program (the EME Program), which monitors the EME from mobile phones, mobile phone towers and broadcast towers.

Under the EME Program, the Australian Centre for Electromagnetic Bioeffects Research (ACEBR) has received \$2.5 million for a 5-year research program between 2018 and 2022. This includes research into human neurophysiology, cellular response studies, and social sciences. Find more information at <https://acebr.uow.edu.au>.

Radiation protection standards

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the Australian Government's authority on radiation protection. The agency aims to protect people from the harmful health effects of radiation by:

- Specifying limits on human exposure to EME through its Radiation protection standard for maximum exposure levels to radiofrequency fields — 3 kHz to 300 GHz (2002), known as the ARPANSA RF Standard.
- Consulting with the world's peak health bodies (such as the World Health Organization and the International Commission on Non-Ionizing Radiation Protection) so Australia contributes to — and benefits from — the best international research and guidance.
- Overseeing emerging and relevant research so accurate and up-to-date advice is provided to the Australian Government and the public.

Based on scientific evidence, the Expert Panel concluded the RF Standard continues to provide a high degree of protection against the known health effects of radiofrequency EME.



The ARPANSA RF Standard is based on decades of peer-reviewed scientific research, from Australia and across the world. It identifies the levels at which harmful effects can occur and sets exposure limits well below those levels.

The ARPANSA Radiofrequency Expert Panel undertook a review of the science underpinning the RF Standard in March 2014, by examining the research on EME and health. Based on scientific evidence, the Expert Panel concluded the RF Standard continues to provide a high degree of protection against the known health effects of radiofrequency EME.

The full report is on the ARPANSA website at www.arpansa.gov.au/research-and-expertise/technical-reports.

ARPANSA will review its standard following the release of new international guidelines.

The Radiation Health and Safety Advisory Council

The Radiation Health and Safety Advisory Council advises ARPANSA's Chief Executive Officer on any emerging issues and matters of major public concern about radiation protection and nuclear safety.

The council includes a member whose role is to represent the interests of the general public. To contact this member to discuss ARPANSA's role in EME-related health research and standard setting, go to the ARPANSA website at www.arpansa.gov.au/about-us/advisory-council-and-committees/radiation-health-and-safety-advisory-council.

Where can I find more information?

There are many resources available to the public about EME and health. ARPANSA has prepared a useful directory on literature about EME research which is regularly updated at www.arpansa.gov.au/research/surveys/electromagnetic-radiation-literature-survey/how-you-can-search-for-radiation-literature.

ARPANSA also operates a program where the public can talk directly with scientific experts about EME exposure. To find out more visit www.arpansa.gov.au/contact-us/talk-to-a-scientist.

More information about EME is also available from the World Health Organization at www.who.int/peh-emf/en.