

Information on Mobile Base Stations, EME Emissions and Safety

Set out below are references to websites and information provided by the Australian government and its agencies, and peak health agencies such as the World Health Organisation, which state that **mobile base stations do not pose a risk to health.**

The following links provide additional information on mobile base stations, health and safety.

Australian Chief Medical Officer	
<p>Statement from Australia’s Chief Medical Officer on 5G and Mobile Base Station Safety https://www.health.gov.au/news/safety-of-5g-technology</p>	<p><u><i>I’d like to reassure the community that 5G technology is safe.</i></u></p> <p><i>There is no evidence that telecommunication technologies, such as 5G, cause adverse health impacts. This position is supported by health authorities in Australia – such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) – and around the world, such as the World Health Organization.</i></p> <p><i>Mobile phone networks and other wireless telecommunications emit low-powered radio waves also known as radiofrequency (RF) electromagnetic energy (EME). This is different to ionising radiation associated with nuclear energy or use in medicine. <u>The radio waves to which the general public is exposed from telecommunications are not hazardous to human health.</u></i></p>
ARPANSA	
<p>Fact Sheet on Mobile Phone Base Stations and Health https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/mobile-phone-base-stations</p>	<p><i>No adverse health effects are expected from continuous exposure to the RF EME emitted by the antennas on mobile phone base stations.</i></p>
<p>Submission to Federal Government 5G Inquiry https://www.arpansa.gov.au/news/arpansa-contributes-5g-inquiry and https://www.arpansa.gov.au/sites/default/files/arpansa_submission_to_inquiry_into_5g_in_australia_1.pdf</p>	<p><i>Current research indicates that there is no established evidence for health effects from radio waves used in mobile telecommunications. This includes the upcoming roll-out of the 5G network. <u>ARPANSA’s assessment is that 5G is safe.</u></i></p>

Australian Department of Infrastructure, Transport, Regional Development, Communications and the Arts	
Information on 5G and EME https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme	<p><i>EME is one of the most heavily studied types of energy in the world. Decades of research shows there is no verifiable evidence that EME from telecommunications facilities pose a negative health risk, especially when emission levels are below the maximum exposure limits set out in the Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (the Standard).</i></p>
Resource Hub – Electromagnetic Energy (EME) and Telecommunications https://www.infrastructure.gov.au/media-communications-arts/spectrum/5g-and-eme/resource-hub https://www.infrastructure.gov.au/frequently-asked-questions	<p><i><u>FAQ: Is the EME from telecommunications dangerous?</u></i> <i>In Australia, EME from telecommunications is researched, regulated and safe as outlined at www.eme.gov.au. Australia has a very strict standard when it comes to protecting people from wireless communication. This standard is based on decades of national and international scientific research.</i></p>
What is EME? https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme/what-eme	<p><i>The EME in telecommunications uses energy levels that are too weak to cause harm...</i> <i>Australia’s strict standards regulate and monitor EME emissions from telecommunications to ensure they stay within these low levels. These standards are based on decades of Australian and international scientific research.</i></p>
5G and Electromagnetic Energy https://www.infrastructure.gov.au/media-centre/5g-and-electromagnetic-energy	<p><i>What do we know about EME? Answer: extensive scientific research confirms that mobile technology has no long or short term health effects; and the Australian Government is focused on capturing the benefits of advanced telecommunications while ensuring strict protections and safety standards are met...</i></p> <p><i>The EME standard set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) defines the maximum exposure limit for all wireless equipment and is strictly enforced by the Australian Communications and Media Authority (ACMA). Measurements undertaken by carriers and ACMA show that mobile telecommunication sites emit a tiny fraction of maximum EME exposure limits. The exposure limits are themselves very conservative. As such, sites which operate at 100% of the limit are still considered safe.</i></p> <p><i>This standard is informed by decades of quality studies undertaken by expert Australian and international scientists which show the low levels of EME produced by telecommunications equipment have no adverse effects. This includes previous generations of mobile technology, like 3G and 4G, and the higher, more efficient, radio waves used for 5G.</i></p>
Safety of Mobile Phone Networks Fact Sheet https://www.infrastructure.gov.au/sites/default/files/safety-of-mobile-phone-networks-factsheet.pdf	<p><i>There is no substantiated evidence that EME causes any harm to humans when it is below the limits specified in Australian safety standards. The Australian Government has an ongoing research program and strong laws in place to make sure EME continues to be used safely.</i></p>

Further Information

<p>Australian Department of Infrastructure, Transport, Regional Development, Communications and the Arts</p> <p><i>The Australian federal government has prepared useful background information and fact sheets concerning base stations, safety standards and 5G.</i></p>	<p>https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme/what-5g</p> <p>https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme</p> <p>https://www.infrastructure.gov.au/media-centre/5g-and-electromagnetic-energy</p> <p>https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme/electromagnetic-energy-standard</p>
<p>ARPANSA</p> <p><i>ARPANSA are responsible for Australia’s mobile base station safety standards. The links include:</i></p> <ul style="list-style-type: none"> • <i>Information on base stations and health</i> • <i>Information on 5G networks and compliance with safety standards, including a response to misinformation being circulated about 5G safety</i> • <i>ARPANSA’s response to the federal government 5G Inquiry</i> • <i>Response to misinformation about 5G and covid-19</i> • <i>Information on recent health research</i> • <i>Talk to A Scientist</i> 	<p>https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/mobile-phone-base-stations</p> <p>https://www.arpansa.gov.au/news/5g-new-generation-mobile-phone-network-and-health</p> <p>https://www.arpansa.gov.au/news/misinformation-about-australias-5g-network</p> <p>https://www.arpansa.gov.au/news/arpansa-contributes-5g-inquiry</p> <p>https://www.arpansa.gov.au/news/5g-and-other-telecommunications-do-not-affect-immune-system</p> <p>https://www.arpansa.gov.au/news/world-first-reviews-5g-radio-waves</p> <p>https://www.arpansa.gov.au/contact-us/talk-to-a-scientist</p>
<p>5G Explained / AMTA 5G Fact Sheet</p> <p><i>Information on mobile networks, 5G technology and safety, prepared by the Australian Mobile Telecommunications Association (AMTA)</i></p>	<p>http://www.emfexplained.info/?ID=25916</p> <p>https://amta.org.au/category/health-and-safety/mobile-networks-safety/</p> <p>http://www.emfexplained.info/site/misc/emf/downloads/5G&EMF_Explained_May2018_Final.pdf</p> <p>https://amta.org.au/international-health-authorities-on-5g-and-eme-health-risk/</p>
<p>ACEBR</p> <p><i>Fact sheets and information from the Australian Centre for Electromagnetic Bioeffects Research (ACEBR), an Australian research institute partnered with several major universities</i></p>	<p>https://www.uow.edu.au/acebr/facts-faqs/</p> <p>https://www.uow.edu.au/acebr/science-wireless/</p>

ARPANSA Talk to a Scientist Service

If you have specific questions or concerns about mobile base stations and safety, we recommend contacting ARPANSA directly.

ARPANSA are the government entity responsible for setting the safety standards that all mobile base stations must comply with.

ARPANSA offers a “Talk to a Scientist” service, where you can ask questions directly. The service is available at **1800 022 333** from 11:00am to 12:30pm Tuesdays and Thursdays, except public holidays.

Further information on this service is available at <https://www.arpansa.gov.au/contact-us/talk-to-a-scientist>.