



Wi-Fi and Health

There is no established scientific evidence that the low exposure to RF EME from Wi-Fi adversely affects the health of children or the general population.

What is Wi-Fi

The use of Wi-Fi has increased rapidly in recent years. Through the use of this technology, electronic devices are connected to a computer network wirelessly using radio waves, or radiofrequency (RF) electromagnetic energy (EME), thereby eliminating or reducing the need for network cables. A common example is a laptop connected to the internet using a Wi-Fi modem at home. Wi-Fi access points can also be found in schools and many public areas. People in a Wi-Fi enabled environment will be exposed to low level RF EME from time to time when using the network on computers and also from the access points. There is some public concern about potential health effects associated with RF EME emissions from Wi-Fi in homes, schools and other places.

Is Wi-Fi regulated in Australia?

The RF EME emissions from Wi-Fi and other wireless devices used for communication are regulated by the Australian Communications and Media Authority (ACMA). The ACMA's regulatory arrangements require wireless devices to comply with the exposure limits in the ARPANSA RF Standard. The ARPANSA Standard is designed to protect people of all ages and health status against all known adverse health effects from exposure to RF EME. The ARPANSA Standard is based on scientific research that shows the levels at which harmful effects occur and it sets limits, based on international guidelines, well below these harmful levels.

Does Wi-Fi cause any health effects?

It is the assessment of ARPANSA and other national and international health authorities, including the World Health Organization (WHO), that there is no established scientific evidence of adverse health effects below current exposure limits.



Wi-Fi devices and access points are low powered, typically 0.1 watt (100 milliwatts). Measurement surveys have shown that exposure to RF EME from Wi-Fi in schools is expected to be much lower than the limit for public exposure specified in the ARPANSA Standard.

Can I reduce my exposure to Wi-Fi?

There is no established scientific evidence of adverse health effects from the Wi-Fi RF exposure. However, if you wish to reduce your exposure you can do so by:

- increasing the distance to Wi-Fi equipment
- reducing the amount of time you use Wi-Fi equipment.

What does ARPANSA advise?

On the basis of current scientific information, ARPANSA sees no reason why Wi-Fi should not continue to be used in schools and in other places. However, ARPANSA recognises that exposure to RF EME from Wi-Fi and other wireless devices can be of concern to some parents. ARPANSA will continue to review the research into potential health effects of RF EME emissions from Wi-Fi and other devices in order to provide accurate and up-to-date advice.

Useful Links

ARPANSA fact sheet on RF EME

www.arpansa.gov.au/RadiationProtection/basics/rf.cfm

The ARPANSA RF Standard

www.arpansa.gov.au/Publications/codes/rps3.cfm

ARPANSA provides general advice on reducing exposure from wireless devices

www.arpansa.gov.au/RadiationProtection/Factsheets/is_Wireless.cfm

WHO fact sheet on wireless technologies

www.who.int/peh-emf/publications/facts/fs304/en

Wi-Fi in schools measurement survey in the UK

<http://webarchive.nationalarchives.gov.uk/20140714084352/http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/UnderstandingRadiationTopics/ElectromagneticFields/RadioWaves/WiFi/WiFiProjectreportonresultsSeptember2011/>