

## HEALTH AND MOBILE PHONE BASE STATIONS

We recognise that the growth in mobile communication has led, in some cases, to public concern about perceived health effects of mobile technology, in particular about siting masts close to local communities. Quite naturally, the public seeks reassurance that masts are not in any way harmful or dangerous.

We are committed to providing the latest independent peer-reviewed research findings, information, advice and guidance from national and international agencies on radiofrequency (RF) electromagnetic fields.

Cornerstone ensure that our radio base stations are designed and built so that the public are not exposed to radio frequency fields above the guidelines set by the International Commission on Non-ionizing Radiation Protection (ICNIRP). In fact, radio base stations operate at low power and emit levels of radiofrequency fields many times lower than the ICNIRP general public guidelines.

## RESEARCH REVIEWS

The World Health Organisation notes that "In the area of biological effects and medical applications of non-ionizing radiation approximately 25,000 articles have been published over the past 30 years. Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals:

(<http://www.who.int/peh-emf/about/WhatisEMF/en/index1.html>).

The scientific community have collated, summarised and assessed these publications into research reviews. The most influential in the UK being the Mobile Phones and Health Report (also known as the Stewart Report). These research reviews are used by Governments to develop policy on exposure to radiofrequency signals.

The Stewart Report concluded that the balance of evidence did not suggest that exposures to radio frequency fields below international guidelines could cause adverse health effects. One of the recommendations of the Stewart report was a research programme to address uncertainties regarding mobile phone base stations and health. This programme was called the Mobile Telecommunications and Health Research (MTHR) Programme. The final report from this programme was published in February 2014. The report noted that the research conducted found no evidence of adverse health effects from the radio waves produced by mobile phones or their base stations.

Since the Stewart Report, over 30 further reviews have been carried out, carefully considering many hundreds of pieces of research. Most have made similar recommendations and have come to comparable conclusions: that research should continue to address any gaps in the knowledge and that overall, the possibility of adverse health effects from mobile communications remains unproven.

In April 2012 the Health Protection Agency's independent Advisory Group on Non-ionising Radiation (AGNIR) published a report entitled "Health Effects from Radiofrequency Electromagnetic Fields". This report concluded that there is no convincing evidence that mobile phone technologies cause adverse effects on human health.

The World Health Organisation (WHO) noted that "A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use" WHO factsheet 193: Electromagnetic fields and public health: mobile telephones, 2014.

In 2019 Public Health England (PHE) noted that "Exposure to radio waves is not new and health-related research has been conducted on this topic over several decades. In particular, a large amount of new scientific evidence has emerged since the year 2000 through dedicated national and international research programmes" <https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health/5g-technologies-radio-waves-and-health>

## ICNIRP GUIDELINES

The radiofrequency public exposure limits for EMF fields were developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) <http://www.icnirp.org> following evaluation of all the peer-reviewed scientific literature, including thermal and non-thermal effects. ICNIRP is a non-governmental organisation formally recognised by WHO. Established biological and health effects have been used as the basis for the ICNIRP exposure restrictions. These guidelines have been adopted for use in the European Union and the UK.

In 2017 ICNIRP reaffirmed that their safety guidelines provide protection against all known health effects of radiofrequency signals.

## COMPLIANCE WITH INTERNATIONAL EXPOSURE GUIDELINES

All Cornerstone installations are designed and constructed in compliance with the precautionary ICNIRP public exposure guidelines as adopted in EU Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). These guidelines have been set following a thorough review of the science and take into consideration both thermal and non-thermal effects. They protect all members of the public 24 hours a day. In addition, precautionary measures have been taken into account when setting relevant guideline limits for the public (i.e. in the UK a safety factor of 50 times is applied to the public exposure guideline).

When measured, field strengths are many times lower than the precautionary ICNIRP general public guidelines.

An ICNIRP certificate is provided with every planning application and this verifies that the mobile phone base station, when operational, will meet the precautionary ICNIRP guidelines. We also provide

further documentation to clarify that the ICNIRP certificate addresses emissions from all mobile phone network operators' equipment at the proposed site.

**Further Information:**

World Health Organisation EMF Project  
<http://www.who.int/peh-emf/en/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)  
<http://www.icnirp.org/>

Public Health England (formally HPA)  
<https://www.gov.uk/government/collections/electromagnetic-fields>

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