

Where can I obtain more information?

To find out more information please visit any of the following websites:

- World Health Organization
[www.who.int/peh-emf/]
- United States Federal Communications Commission
[<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>]
- Mobile Manufacturers Forum
[www.mmfai.org]
- AirFuel Alliance
[www.airfuel.org]



What is the MMF?

The Mobile Manufacturers Forum (MMF) is an international association of telecommunications equipment manufacturers. The MMF was established specifically to support ongoing international research into the safety of wireless technology in conjunction with national and international health agencies around the world.

What is the AirFuel Alliance™?

Driving widespread adoption of wireless charging standards – the AirFuel Alliance™ is an independent, nonprofit consortium with over 200 global brands, including leaders in technology and consumer electronics. Together, the AirFuel Alliance is envisioning a future where the world's mobile devices can power up without plugging in.



**Mobile Manufacturers
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[www.mmfai.org]



[www.airfuel.org]



Wireless Charging and Health



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Notebooks, smartphones and tablets are an indispensable part of our daily lives. Their growing computing power, extensive communications capabilities and many useful applications means that it is becoming increasingly important to ensure that these devices have battery power to last throughout the day.

One technology that is helping to meet this need is wireless charging. Wireless charging has been around for some time – the electric toothbrushes many people use today are charged wirelessly. Wireless charging allows our mobile devices to be easily charged in places that we often find ourselves – our homes, offices,

cars and coffee shops, for example – without having to carry around a multitude of charging cables or having to find a power outlet. By placing your device on a charging surface, your device can charge, so it is ready to go when you are.

While wireless charging isn't new, questions have arisen about the electromagnetic fields generated by the charging units. While there is no scientific evidence that these low power fields pose any health risk to individuals, the industry takes such concerns seriously, and has developed this brochure to help answer some common questions.

What is wireless charging?

Wireless charging allows a battery inside a mobile device or some other portable electronic device to be charged without plugging the device into a local power outlet. There are two main wireless charging techniques inductive charging and resonance charging. With both types of charging techniques, the charger detects the presence of a compatible device before charging begins, which improves energy efficiency.

Is wireless charging safe?

The safety of electromagnetic fields has been studied since the 1950's resulting in a large and growing body of research that covers many frequencies, modulations and power levels. This body of research has been used to develop exposure standards and guidelines that incorporate a substantial safety margin. In addition, the research as well as the standards themselves continue to be regularly reviewed by independent scientific expert panels, government health and telecommunications agencies, and standard-setting organizations to ensure that they remain up to date. The consistent conclusion of health agencies around the world in reviewing the science has been that there is no established evidence of any adverse health effects at or below the exposure limits set by the standards.

Are there limits for exposure to the fields used by wireless chargers?

Wireless chargers are subject to the same exposure limits that are applied to other radio equipment operated near the human body. The limits have been established by independent scientific organizations, such as the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and have been widely adopted by governments and health agencies around the world, including the World Health Organization (WHO). The exposure limits, to which products must comply, include substantial margins of safety to protect both users and the general public.

Do wireless chargers comply with the applicable exposure requirements?

Yes. All wireless chargers are required to be evaluated to ensure that they conform to the exposure limits adopted by agencies around the world before being placed on the market. These evaluations are performed in accordance with the applicable regulations and guidelines adopted by regulatory agencies around the world. In Europe, compliant products feature a 'CE' mark while in the United States they carry the 'FCC' mark.

What is the industry doing to ensure the continued safety of these products?

The Mobile Manufacturers Forum has supported a wide variety of international research into the safety of electromagnetic fields – with many of the research projects involving national and international health agencies. In addition we also support ongoing research to improve measurement standards and techniques to ensure the compliance of new and evolving technologies.

