

## MOBILE PHONE RADIATION

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### What is radiation?

Radiation is energy travelling through space in the form of waves or particles. It occurs naturally and has always been around, we've evolved with it and we're bombarded with it in one form or another every day of our lives – from the earth, from space and even within our own bodies. Some experts suggest a little radiation is a good thing and we all know of its uses in medical science to combat and diagnose some illnesses.

There are various types of radiation but we won't get into the physics of atoms, neutrons and protons (there are plenty of websites that explain it if you want the scientific stuff) – but we will tell you why radiation is in mobile phones and whether or not you need to worry about it.

### Radiation and your mobile

The type of radiation emitted from mobile phones is electromagnetic radiation. It's present in mobiles because they use radio frequency (RF) waves to make and receive calls. The doses are considered to be very small as the emissions are low power (short range). Nevertheless, there are ways in which you can reduce exposure to these waves.

### The health risks

Despite extensive research on the subject, there has been no conclusive evidence that using a mobile phone causes long term harmful effects in humans.

The pace of mobile phone technology is advancing at a far quicker pace than the research required into the potential harm they can cause; much more research is needed (and is being undertaken) before we can know for certain the effects they have on human health. Nevertheless, mobiles do emit low doses of radiation so common sense dictates precaution should be taken when using them.

Studies have shown that exposure to the RF waves emitted from mobiles can cause:

- slightly raised blood pressure at the time of use, pressure returning to normal when use is stopped (to put this into perspective, our blood

pressure changes regularly throughout the day and is even affected by tasks such as speaking)

- direct brain warming after prolonged use, which disperses as soon as you stop using your phone and causes no harm
- mild fatigue after prolonged use
- a recent study in Sweden suggested that acoustic neuromas (benign tumours of the acoustic nerve) are twice as common in mobile phone users than in those who do not use mobiles

There is no evidence that using a mobile phone causes tumours, memory impairment, cancer, brain damage, foetal damage.

The health risk is considered to be very, very small, although some individuals may be more susceptible to radiation than others. Whilst it's true that excessive exposure to RF waves causes heating, the spoof claims you may have heard about being able to cook an egg using a mobile phone are entirely false.

### **Reduce exposure**

Whilst there's no evidence that mobiles produce sufficient levels of radiation to cause any lasting ill effects, there's no harm in taking simple precautions to reduce the levels of radiation you absorb from using your phone:

- moving your phone 20cm away from your head reduces radiation doses by about 98%
- hands free headsets dramatically reduce radiation emissions into the brain
- try not to chat for hours on end or, if you must, get a hands free kit
- there are a few devices on the market that you can fit to your phone that reduce the emissions of radiation or allow the body to neutralise the effects, but beware of over-hyped promotions by these manufacturers using scare tactics to market their products
- it's always sensible to take precautions where children are concerned as their developing brains and bodies are far more susceptible to radiation effects than adults, absorbing radiation at three times an adult's rate. Find out more about mobile phones and protecting your children

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