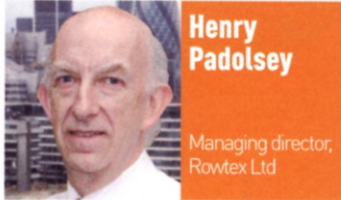


Answering the call for safety

With mobile phones becoming an integral part of our everyday lives, employers have a responsibility to minimise the health risks associated with their use.



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The smartphone has emerged as the main technology platform for company mobiles, with many businesses reducing or eliminating landlines in favour of mobile phones. This has led to increased usage and an "always online" mentality for users and companies alike.

The *Occupational cancer: a workplace guide* document from the TUC makes it clear that there is a legal responsibility and duty on companies regarding the health of their employees. It is the company's responsibility to ensure they conduct suitable assessments – including risks and hazards – that may cause cancer.

With mobiles now classified as Group 2B by the World Health Organisation, meaning that emissions from mobile phones are "possibly carcinogenic", the TUC states that it moves the obligation to protect staff firmly onto the employer's shoulders.

Cancers can develop for a wide range of reasons. These include exposure to radiation – both from radioactive materials and the sun – infection by certain viruses, genetic defects, a weakened immune system, age, bad diet and exposure to chemical or other carcinogens. The range of known carcinogens now includes electromagnetic fields from all mobile phones.

User guide

Mobile phone manufacturers have already added warnings to their instructions, with comments such as: "This product may exceed FCC exposure guidelines [US regulations] for body-worn operation if positioned less than 15mm (5/8in) from the body. For optimal mobile device performance and to be sure that human exposure to radio frequency (RF) energy does not exceed the FCC, IC [Industry Canada] and European Union guidelines, always follow these



instructions and precautions."

In plain language, this warns users not to place an operating mobile close to the body – in reality, when making calls we place the phone against our ear, just millimetres from our brain.

Modern phones are microwave transmitters and receivers; they also have transmitters for Wi-Fi and Bluetooth, often operating at full power. The majority casually put these units close to their heads for extended periods (against manufacturers' recommendations).

Health risks

In business, many staff use their mobiles for prolonged periods, so it is no wonder that users complain of "hot ear" and other symptoms such as headaches and nausea, which are dismissed as normal work pressures.

Over the past decade, there has been upwards of 500 studies around the world investigating mobile phone radiation and its effects on the human body.

All of the independently funded studies that have included long-term users have found an association between mobile phone use and an increased risk of brain tumours among adults.

Some studies have found that people who have used mobile phones for more than a decade have a 200% higher chance of contracting a brain tumour on the

side of the head where the user holds the phone. Nobody can tell how big the increased risk is yet because scientists do not know how many years someone has to use a mobile phone to increase their chances of a brain tumour.

Many scientists believe that the studies done so far, which at most show the risks to people who have used their mobile phone for about 10 years, are only showing the tip of the iceberg and that the risk will peak after 20 or more years of use. Other studies have shown symptoms such as reduced sperm counts, DNA damage, headaches, nausea, depression and memory loss. The Health Protection Agency (HPA) has been sitting on the fence regarding this issue for several years and quotes the following in its *Health advice on mobile phones*: "The benefits of mobile telecommunications are widely recognised but, given the uncertainties in the science, some precaution is warranted particularly regarding the use of handsets held against the head."

The change of classification of mobiles to 2B also led to the HPA stating: "The HPA notes the conclusion that there could be some risk and that a close watch should be kept for a link between mobile phones and cancer risk. The HPA supports the call for additional research into the long-term, heavy use of mobile phones."

In many ways electromagnetic radiation has become the cigarette of the 21st century – cigarette advertising originally touted the health benefits of cigarettes and portrayed doctors smoking.

It took several decades for the truth to win out and defeat the "spin" from the tobacco companies, but now science and the courts have definitively established the destructive effects of tobacco and can agree that the original ads were preposterous. Unfortunately, many fail to appreciate that there are similarities between the telecommunications and tobacco industries with respect to their PR regarding the potential health dangers of the product.

Call for prevention

All companies should be revising their health and safety policies and taking steps to mitigate the effects on staff that use company mobiles. There are a number of ways to minimise your staff's exposure to phone emissions. These include: speakerphone, (not an ideal option in a busy environment); Bluetooth headset (a better option, but is still keeping a transmitter close to the head for long periods); and wired headset (cable can act as aerial, increasing the electromagnetic waves to the head). An effective option is to use an air low-radiation air-tube headset, which has the advantage of virtually eliminating the radiation to the head. This solution achieves its objective by converting the electrical signal from the phone to harmless airwaves and conveying the sound to the ear via an air-tube.

There is no doubt that mobiles are here to stay, they are the 21st century device of choice. As responsible employers, we must advocate a common sense approach that operates within the health and safety guidelines and protect staff from phone emissions.

■ Henry Padolsey is a director of air, a division of Rowtex Ltd, a provider of hands-free air-tube headsets for mobiles that cut specific absorption rate emissions. More information at: www.air2hear.co.uk/tuc.php