

Editorial

Health risks associated with mobile phones use

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Mobile or cell phones are now a days an integral part of modern telecommunications in every individual life. In many countries, over half of the population use mobile phones and the mobile phone market is growing rapidly. Saudi Arabia rank first among the countries of the gulf region with highest proportion of mobile users, a study conducted by United Nations Conference on Trade and Development (UNCTAD). In gulf countries, Oman ranked second, followed by Kuwait and the UAE. As billions of people use mobile phones globally, a small increase in the incidence of adverse effects on health could have major public health implications on long term basis. Besides the number of cell phone calls per day, the length of each call and the amount of time people use cell phones are important factors which enhance the health related risk. ⁽¹⁾

Mobile phones emit radiofrequency energy, a form of non-ionizing electromagnetic radiation, which can be absorbed by tissues close to the phone. The amount of radiofrequency energy a mobile phone user is exposed depend on many factors as the technology of the phone, the distance between the phone and the user, the extent and type of mobile phone use and the user's distance from cell phone towers. ⁽²⁾

In 2011, International Agency for Research on Cancer (IARC) classified mobile phone radiation possibly carcinogenic, means that there "could be some risk" of carcinogenicity, so additional research into the long-term, heavy use of mobile phones needs to be conducted. ⁽³⁾

While an increased risk of brain tumours from the use of mobile phones is not established, the increasing use of mobile phones and the lack of data for mobile phone use over time periods longer than 15 years warrant further research of mobile phone use and brain cancer risk. In particular, with the recent popularity of mobile phone use among younger people, potentially longer lifetime of exposure, WHO has promoted further research on this group and is currently assessing the health impact of RF fields on all studied endpoints. A cohort study in Denmark linked billing information from more than 358,000 cell phone subscribers with brain tumour incidence data from the Danish Cancer Registry. The analyses found no association between cell phone use and the incidence of glioma, meningioma, or acoustic neuroma, even among people who had been cell phone subscribers for 13 or more years. ⁽⁴⁾

The American Cancer Society (ACS) states that the IARC classification means that there could be some risk associated with cancer, but the evidence is not strong enough to be considered causal and needs to be investigated further. Individuals who are concerned about radiofrequency exposure can limit their exposure, including using an ear piece and limiting cell phone use, particularly among children. ⁽⁵⁾

Scientists have reported adverse health effects of using mobile phones including changes in brain activity, reaction times, and sleep patterns. More studies are underway to try to confirm these findings. When mobile phones are used very close to some medical devices (including pacemakers, implantable defibrillators, and certain hearing aids) there is the possibility of causing interference with their operation. There is also the potential of interference between mobile phones signals and aircraft electronics. Some countries have licensed mobile phone use on aircraft during flight using systems that control the phone output power.

Research has shown an increased risk of traffic accidents, about 3-4 times greater chance of an accident, when mobile phones (either handheld or with a "hands-free" kit) are used while driving due to distraction. ⁽⁶⁾

Children have the potential to be at greater risk than adults for developing brain cancer from cell phones. Their nervous systems are still developing and therefore more vulnerable to factors that may cause cancer.

The FDA ⁽⁷⁾ have suggested steps to reduce the exposure to radiofrequency energy:

Reserve the use of cell phones for shorter conversations or for times when a landline phone is not available.

Use a hands-free device, which places more distance between the phone and the head of the user.

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