

## **A REVIEW OF THE CURRENT KNOWLEDGE AND RESEARCH REGARDING THE HEALTH EFFECT OF CELLULAR TELEPHONES**

There has been a significant interest within the media and the general public in the health effects of mobile telephones over the last 12 months. This follows a rapid expansion of the cellular telephone service within the United Kingdom and Europe in the last 3 years. The increase in the practicalities of cellular telephones has occurred, as they reduce in size and become more portable.

Cellular telephones radiate electro-magnetic radiation. To-date there is no documentary evidence that confirms that there are any significant health effects. The amount of electro-magnetic radiation produced by a cellular telephone is extremely small.

The health effects of electro-magnetic radiation has been under review for the last 50 years, as the major source of electro-magnetic radiation within the United Kingdom has been electric cables on overhead pylons. There has been a series of investigations over the years following clusters of cases of Cancers, particularly Leukaemias from residents of communities living under or near overhead electric pylons. To-date there is no evidence providing a conclusive link between electro-magnetic radiation and adverse health effect. The quantity of electro-magnetic radiation radiated by cellular telephones is vastly less than that radiated from overhead electric cables.

The cellular telephone industry has invested billions of dollars, primarily in the United States over the last 10 years, on research into the health effects of mobile telephones. To-date there is no evidence from the United States or anywhere else in the World, that there are significant health effect. There has currently been 14 civil actions within the United States against cellular telephone companies, brought by individuals who allege significant health issues caused by mobile telephones including Cancers. To-date there has not been a successful action against a mobile telephone company because no jury has been persuaded that the evidence is strong enough to implicate mobile telephones.

Research on animals exposing them to very high doses of electro-magnetic radiation, has produced health effects including tumours. Most of the studies have been carried out on rats, this is not a good model to extrapolate to humans and the doses used were vastly in excess of any dose that could practicably be experienced by a human being. Some recent research from Bristol University does give cause for concern, which has been quoted in the press recently, but again, this is not conclusive and further work will have to be carried out in order to establish this significance of the results obtained.

In conclusion, therefore, there is no conclusive evidence that there are any significant health effects from mobile telephones. A great deal of research has been carried out over the years into the health effects of electro-magnetic radiation. This so far is inconclusive.

As our knowledge base is still incomplete, it would seem sensible to take whatever precautions are possible to reduce the exposure to electro-magnetic radiation from mobile telephones. Therefore, to use hands free or ear pieces to keep the mobile telephone away from the head, would seem logical.

The use of protective shields is not considered advisable at the present time and their long term advantage is currently under debate. Protective shields reduce the ventilation of the cellular phone and, therefore, they become significantly hotter than they would be without the shield in place. This increases the amount of electro-magnetic radiation from the telephone. This, working on the basic principles, would not seem to be advantageous. The use of leather protective cases does not cause this problem, as provision is made for ventilation.

The whole subject of the health effect of mobile telephone is continually under review by the Industry, the Medical and Legal profession. We will attempt to keep you up-dated, as further information is available.