Mobile phones can trigger eye damage, fear scientists

By Peter Zimonjic
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Prolonged use of mobile phones can lead to permanent eye damage including cataracts, scientists believe.

Medical researchers have found that microwave radiation of the type emitted by mobile phones causes eye tissue to "bubble" - a precursor to the formation of cataracts - and can also interfere with the ability to focus.

Professor Levi Schächter, who led the Israeli team which conducted the study, warned: "Our results show that microwaves can cause irreparable damage. Our advice to people with mobile phones is not to use them if they have the option of using a land line until we can conduct more research."

The new findings will reignite the debate into the safety of mobile phones, after warnings from a Government minister earlier this year that parents should be "very careful" about how much time children spend talking on their handsets. More than 50 million mobiles are in use in Britain.

The new study, conducted by the Rappaport Faculty of Medicine at the Israel Institute of Technology, in Haifa, found clear risk to eyesight.

Scientists exposed lenses taken from male calves - whose eyes, until they are two years old, have close similarities to humans' - to mild heat, comparable to the raised temperature caused by extended mobile phone use, and to microwave radiation no greater than emissions from mobile phones. After two weeks the lenses, kept in a culture medium, were compared with others which had not been similarly exposed, to identify biological changes.

Prof Schächter's team found that the exposed lenses were less able to focus clearly on a beam of light, which would cause an eye to record a blurred image - but found that over time, when exposure stopped, the damage healed. However the exposure also caused bubbles to form within the tissue of the lens, which did not disappear over time -
an indication of development of cataracts, or permanent eye damage.

Prof Schächter said: "There has been much research to determine whether mobile phones cause cancer or brain damage, but until now very little on their effects on vision."

Shortly after the study was published in the Journal of Bioelectromagnetics the authors were invited to present their findings to the Israeli parliamentary health committee. The country's health advisory body subsequently urged the Israeli government to fund more such studies.

Last year a major review by the International Commission for Non-Ionising Radiation of all published research concluded that there was "no consistent or convincing evidence of a causal relation" between mobile phone use and any adverse health effects.

However, the new findings have provoked consternation in Britain. Dr Michael Clark, a spokesman for the Health Protection Agency, said British researchers should broaden the range of possible dangers being investigated.

"This is a good piece of work that is properly published and we are looking at it carefully," he said. "If future research delivers the same or similar results then public health practices may need to be re-examined."

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