Recent scientific publications relevant to mobile telephony

July 2005

Summary


Details


‘...For the single-dish, double-dish and quadruple-dish exposure set-ups, the SAR intensity and the SAR uniformity are analysed and compared. The meniscus effect on the SAR distribution over the cell layer is evaluated for the single-dish set-up. The influence of the Petri dish interaction on the SAR distribution is examined for the double-dish and quadruple-dish set-ups.’


‘...13 studies of sufficient quality were considered for this review...In conclusion, based on the limited studies available, there is no valid evidence for an association between impaired well-being and exposure to mobile phone radiation presently. However, the limited quantity and quality of research in this area do not allow to exclude long-term health effects definitely.'

'...analyzes public risk perception, pointing out the perceived risk semantic for nuclear energy, GM-food, mad cow disease (BSE), crime, global climate change, mobile telephony and its radiation risks...The relevance of technological risks tends to be dependent on the context: If explicitly mentioned in newscasts, in debates or listed in questionnaires memories, fears or other immediate responses become activated, yet they may be forgotten a short time later...'


'...In total, 910 (91%) cases and 1016 (92%) controls participated... Regarding T-cell NHL [non-Hodgkin's lymphoma] and >5 year latency period, the use of analogue cellular phones yielded: odds ratio (OR) = 1.46, 95%; confidence interval (CI) = 0.58-3.70, digital: OR=1.92, 95%; CI=0.77-4.80 and cordless phones: OR=2.47; CI=1.09-5.60...The results indicate an association between T-cell NHL and the use of cellular and cordless telephones, however based on low numbers and must be interpreted with caution. Regarding B-cell NHL no association was found.'


'...The use of analog cellular phones yielded odds ratio (OR) of 2.6 and a 95% confidence interval (CI) of 1.5–4.3, increasing to OR=3.5 and 95% CI=2.0–6.4 with a >10-year latency period. Regarding digital cellular telephones, the corresponding results were OR=1.9, 95% CI=1.3–2.7 and OR=3.6, 95% CI=1.7–7.5, respectively. Cordless telephones yielded OR=2.1, 95% CI=1.4–3.0, and with a >10-year latency period, OR=2.9, 95% CI=1.6–5.2. The OR increased with the cumulative number of hours of use and was highest for high-grade astrocytoma. A somewhat increased risk was also found for low-grade astrocytoma and other types of malignant brain tumors, although not significantly so. In multivariate analysis, all three phone types studied showed an increased risk.'


'...These results show that melatonin may exhibit a protective effect on mobile phone-induced renal impairment in rats.'

‘...The study clearly shows that SAM gives a conservative estimate of the exposure in anatomically correct head models for head only tissue...Measurements in small structures, such as the pinna, will significantly increase the uncertainty; therefore SAM was designed for SAR assessment in the head only. Whether SAM will provide a conservative value for the pinna depends on the pinna SAR limit of the safety standard considered.’


‘...Given the recent introduction and popularization of digital phones - this study used five years as the time since first regular use - these results provide only limited guidance with regard to the risk of short-term use of cell phones or exposure to wireless radiation, and do not indicate the relative risk from using an analog or digital phone alone.’

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