

Press release - May 16th 2005

## **Experts confirm effects of mobile telephone radiation**

*Young and healthy adults have no problem - other groups could be at risk*

The radiation of wireless communication indeed has effects on the central nervous system, influences the functioning of the brain and causes damage to DNA. That is confirmed by 25 experts who studied the relevant scientific literature of 2000 to 2004. The investigation was done by the working group 'Mensch Umwelt Technik' (MUT) of the Jülich research institute in Jülich, Germany. The results were presented to the public on May 9th, 2005. The experts guess that the effects on the central nervous system can not cause health problems, though this opinion has no scientific base. The influence on the brain results in shortened or prolonged reaction times and less or more mistakes, depending on the parameters of the radiation. The experts think the damage to DNA is not a problem, since it would not lead to cell damage.

### **T-Mobile**

The investigation was ordered and financed by T-Mobile, a provider of mobile communications. The experts only studied scientific reports and did not pay attention to the many experiences of people suffering from health effects of modern radiofrequent radiation. The complaints of these people however fit in perfectly with the effects on the central nervous system, increased neuronal activity and influence on the functioning of the brain. The damage to DNA moreover fits in well with the results of epidemiologic investigations, finding an increased risk of cancer in the neighbourhood of antenna towers. The experts however state that the results of epidemiologic investigations are not consistent and more research is needed. In the meantime they advise to keep mobile calls short and not to use a mobile phone in a moving car without outside antenna nor at a far distance from the antenna tower.

### **Risk groups**

Young and healthy people are not at risk, say the experts. However, the radiation of mobile communication systems (probably combined with other factors) could be harmful to other groups, like children, elderly or sick people, babies and pregnant women. Probably the pulse-modulated radiation is most effectful on the central nervous system and brain. The working mechanism is non-thermal and not yet understood. Pulse-modulation is used by e.g. GSM, UMTS, DECT, WLAN, WIFI, TETRA and many other wireless systems. The experts say headaches and problems with concentration and remembrance could be related to the radiation of mobile phone systems, but according to the literature the other complaints probably are not. Having studied the

scientific literature, they doubt if electrohypersensitivity (EHS) exists, but they emphasize that the absence of evidence is not evidence of absence.

### **No consensus**

The experts studied the permeability of the 'blood brain barrier', the risk of cancer, the damage to DNA, the effects on the brain and central nervous system and the disturbance of well-being. About the permeability of the 'blood brain barrier' there is no consensus. The experts think the 'blood brain barrier' could fail under stress or thermal conditions, but without relevance to health. There is no consensus about the damage to DNA neither. However, the experts think this can not be relevant biologically and to health, since the literature does not mention cell damage as a consequence. Laboratory tests with animals do not show an increase of cancer. Nevertheless the experts say there could be an increased risk of cancer in humans in the long term. They advise to be on the safe side and keep mobile phone calls short.

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