

## **EM pollution**

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EM pollution has become an important topic now days because of tremendous growth of the mobile phones and base stations number. The primary objectives of this study is to determine the amount of emitted energy that is transformed into heat in the human tissues. Previous investigations were conducted using a head model of an adult man, and were aimed at determining the correlation between SAR and temperature rise. Several conventional antenna types placed at different distances from the head were also studied, but the presence a hand, holding the mobile phone was not considered. It is also very important to study the model of a child, because the impact in the child tissues can be higher. It is of a big importance to compare two exposure scenarios: with a hand, holding the mobile handset and without it because the hand absorbs the energy and changes the radiation pattern. The study of the SAR dependance on the antenna matching is also planned. As a result several recommendations for the mobile phone usage have been developed. This list will be farther extended.