



Mobile Telephony Antennas and Public Health: The Real Dimensions of the Issue

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Mobile telephony and wireless access to the Internet gave new dimensions to communication and a significant boost to the financial sector. The justified concern as to the consequences of electromagnetic radiation in health call for the necessary, valid and objective information and enhancement of the citizen's trust in the competent bodies of the state.



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Around the world, many countries and competent international institutions have set the limits of acceptable exposure of the general public to non-ionising electromagnetic radiation, such as the radiation from mobile telephony antennas. Most European countries, including Greece, follow the guidelines of the International Commission on Non-ionizing Radiation Protection (ICNIRP), an independent non-governmental organisation that has been acknowledged by the World Health Organisation (WHO). The guidelines of ICNIRP, that form the basis of the recent Greek legislation on the matter, are based on thorough reviews of the entire research that has been published. Moreover, the limits that were recently set out and applied in Greece are significantly more important than the ones provided by ICNIRP.

Even if the power emitted by mobile phones is significantly lower than the power transmitted by antennas at base stations, it is accepted that the electromagnetic burden is due mainly to mobile phones. As to measurements, both the international and Greek experience confirm the fact that radiation from base stations may vary between slightly lower to significantly lower compared to the exposure limits that have been set out. However, because of the fact that the ex-

tended use of mobile telephony is relevantly recent, an important part of citizens as well as the scientific community is troubled.

Most medical and biological researches reach the conclusion that exposure to low electromagnetic radiation from base stations has only hermal effect without any harmful consequences for our health. Although recent international epidemic studies did not show an increase as to the risk of brain cancer caused by mobile phone radiation, some research groups have found out that, under particular conditions, radio waves may cause non-thermal biological effect to isolated cells or test animals. However, these effects were not directly related to any cause of damage on human body. Until the scientists reach their final conclusions, WHO as well as the Greek state apply the precautions principle by imposing preventive measures.

It is encouraging that thanks to the coordinated effort of EETT the greater public has accepted the basic principles, i.e. that mobile phone radiation is not radioactivity, that without antennas there will be no wireless communication – and therefore no mobile phone service – and that densification and correct planning of the base station network is a necessary prerequisite so that the



mobile phone network antennas as well as mobile units may transmit at lower power.

In order to implement the precautions principle in practice all involved parties must act together with responsibility aiming at providing objective information to citizens.

Citizens must seek - with sangfroid - valid and objective information and they must have knowledge of the procedures and the competent bodies of the state that are relevant to their rights. The main protective measures include avoiding the use of mobile phones in basements, indoor areas or the metro and to advise children to use mobile phones whenever this is necessary and for short time.

Mobile telephony companies must fully adhere to the legislation that governs the installation and operation of base stations and they must adjust their operation when town planning conditions change.

The mass media, on their part, must seek valid sources of scientific information, they must cross-check the various scientific views and avoid extreme statements and alarmism.

Various scientific groups that are researching electromagnetic radiation from radio waves, must first take three factors under consideration before publishing their results to the public: the great importance of this matter for the health of citizens and the respective alert of public opinion, the ignorance of the public as to new technologies and, finally, the inter-scientific nature of approach to this complex scientific field.

These academic and particularly complex matters form the object of work for hundreds of research groups and thousands of scientific essays are published each year. Regardless of the scientists' intentions, fragmented handling and hasty publication of early conclusions to

the public do not contribute to the sound application of the precaution principles. On the contrary, they cause erroneous reactions and excessive increase of alarm on citizens making them vulnerable in having wrong, exaggerating reactions. It should be reminded that until some time ago and while having unilateral information by non-specialists, the greater public has formed the totally wrong and dangerous opinion that the mobile telephony antennas must be removed from the cities and installed on the mountains, while at the same time everyone was using mobile phones in indoor areas or in the metro.

Following systematic preparation, EETT began an extensive campaign for valid information and transparency aiming at contributing to the public discussion. The State, the bodies of citizens, the scientific community and the mobile telephony companies are obliged to act together towards this effort.