For the first time in history, we face a situation when most children and teenagers in the world are continuously exposed to the potentially adverse influence of the electromagnetic fields (EMF) from mobile phones.

Electromagnetic field is an important biotropic factor, affecting not just a human health in general, but also the processes of the higher nervous activity, including behavior and thinking. Radiation directly affects human brain when people use mobile phones.

Despite the recommendations, listed in the Sanitary Rules of the Ministry of Health, which insist that persons under 18 years should not use mobile phones (SanPiN 2.1.8/2.2.4.1190-03 point 6.9), children and teenagers became the target group for the marketing the mobile communications.

The current safety standards for exposure to microwaves from the mobile phones have been developed for the adults and don’t consider the characteristic features of the children’s organism. The WHO considers the protection of the children’s health from possible negative influence of the EMF of the mobile phones as a highest priority task. This problem has also been confirmed by the Scientific Committee of the European Commission, by national authorities of the European and Asian countries, by participants of the International scientific conferences on biological effects of the EMF.

Potential risk for the children’s health is very high:

— the absorption of the electromagnetic energy in a child’s head is considerably higher than that in the head of an adult (children’s brain has higher conductivity, smaller size, thin skull bones, smaller distance from the antenna etc.);
— children’s organism has more sensitivity to the EMF, than the adult’s;
— children’s brain has higher sensitivity to the accumulation of the adverse effects under conditions of chronic exposure to the EMF;
— EMF affects the formation of the process of the higher nervous activity;
— today’s children will spend essentially longer time using mobile phones, than today’s adults will.

According to the opinion of the Russian National Committee on Non-Ionizing Radiation Protection, the following health hazards are likely to be faced by the children mobile phone users in the nearest future: disruption of memory, decline of attention, diminishing learning and cognitive abilities, increased irritability, sleep problems, increase in sensitivity to the stress, increased epileptic readiness.

Expected (possible) remote health risks: brain tumors, tumors of acoustical and vestibular nerves (in the age of 25-30 years), Alzheimer’s disease, “got dementia”, depressive syndrome, and the other types of degeneration of the nervous structures of the brain (in the age of 50 to 60).

The members of the Russian National Committee on Non-Ionizing Radiation Protection emphasize ultimate urgency to defend children’s health from the influence of the EMF of the mobile communication systems. We appeal to the government authorities, to the entire society to pay closest attention to this coming threat and to take adequate measures in order to prevent negative consequences to the future generation’s health.

The children using mobile communication are not able to realize that they subject their brain to the EMF radiation and their health – to the risk. We believe that this risk is not much lower than the risk to the children’s health from tobacco or alcohol. It is our professional obligation not to let damage the children’s health by inactivity.

On behalf of members of Russian National Committee on Non-Ionizing Radiation Protection

Chairman, professor