

# Russian Parliament bans cell phones and antennas in schools

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By: **André Fauteux**

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The Russian Parliament has just banned cell phones in schools and relay antennas on the grounds of educational institutions, in particular to protect the health of children from harmful waves.

Here is a message I received on Wednesday directly from the Chairman of the Russian National Committee on Protection against Non-Ionizing Radiation, Doctor of Radiobiology Oleg A. Grigoriev:

“I am very pleased to inform you about the new restriction on mobile phones for children in Russia. The ban on mobile phones in Russian school classrooms is enshrined in a law adopted today by the Russian Parliament - the State Duma. The ban was first established in mandatory health regulations from January 2021. Today, the ban on the use of mobile phones in lessons has been included in the Education Act. This is the result of the work that we started with our colleagues from Professor V. Kuchma's team in the summer of 2020 - reducing the risk to children's health from a complex of harmful factors of health technologies. Information and communication, among the sources of risk in the first place is a cell phone or smart phone. »

During the pandemic, Grigoriev succeeded in banning the use of cell phones in distance educational activities and also warned parents against the dangers of radiofrequency/microwave radiation for children and fetuses, notably by publishing various posters.

Grigoriev also chairs Russia's non-ionizing radiation departments and is scientific consul for radiobiology of the Russian Academy of Sciences and the Scientific Society of Radiobiology of the Russian Academy of Sciences. As the image below which summarizes the new law talks about preventing infectious diseases and poisonings, I asked him if electromagnetic field (EMF) pollution was the main risk targeted. Here is his response:

“When I wrote this point in the summer of 2020, I was thinking about EMFs and the health effects of screens; part of the issue of attention and concentration is also taken into account (psychophysical and psychophysiological effects). Politicians talk about [problems of] behavior, it's easy to understand and

it's normal. I will be able to say more about this law when the President signs it, we are waiting. The mobile phone industry is trying to block, they should move on 4500 school and university base station (according to data from mobile operators), there is a battle going on... [The Swedish government will also ban cell phones in class](#) (for children up to 16 years old). Politicians see results, diminishing brain and cognitive functions. But we have known since 1976 that exposure to electromagnetic fields at a level below the Soviet limits (1970) has no influence on the health of children, but leads to a deterioration of cognitive functions, as research has shown. led by Professor Shandala, etc. This research shows all the problems we see in schoolchildren today. The ban in schools will change the culture of cell phone use. »

Ironically, [half a million Russian troops](#) died or injured in President Vladimir Putin's war on Ukraine.

In October, Quebec Education Minister Bernard Drainville also banned [cell phone use](#) in primary and secondary classes. According to *Le Devoir*, “exceptions will however be granted when the use of these devices in class is required “by the methods of educational intervention taken by the teacher, by the state of health of a student or by special needs of a handicapped student or student with adjustment or learning difficulties. Not a word obviously on the health problems caused by chronic exposure to waves...

\*Updated December 12, 2023

Dr. Grigoriev sent me this extract from chapter 4 (pages 377 to 381) of his book (in Russian) *Cellular Communication and Health. Electromagnetic environment. Radiobiological and hygienic problems. The risk forecast* / Yu.G. Grigoriev, OA Grigoriev. - Moscow: Economica, second edition, revised. 2016. - 574 p. It addresses the cognitive, cardiovascular, and immune symptoms experienced by children living near powerful radio antennas during the 1970s.

“Epidemiological studies on the health of children exposed to low-intensity EMF over a long period of time, which were carried out in the years before the massive diffusion of cellular communications, are particularly valuable, because they make it possible to differentiate between exposure factors and to describe fairly precisely the conditions of the influence of EMF on a child. Currently, their repetition is impossible for objective reasons, and the methodological approach and the quality of the presented material allow us to process these data with a high degree of confidence.

The most complete summary of the results of the epidemiological study of children can be found in the works of the Kiev Institute of Communal Hygiene, named after Marzeyev, in the 1970s. We are not aware of similar studies in terms of scale and methodological sensitivity. For the purposes of this monograph, the characterization of the exposure conditions and the conclusions of the study authors are of great importance.

In localities directly adjacent to the antenna fields of medium-wave and cortical-wave radio stations, 270 children of three age groups were examined annually for three years: 5-6 years old, 11-12 years old and 13 -14 years old. The control group consisted of 200 children of similar age groups

living in remote areas where EMF intensity was lower than the sensitivity of the device. The measurements were carried out with the IEMP-1 device that was standard at the time. Comparable groups of children were selected in the same locality (if conditions permitted) or in equivalent neighboring localities. The health status of children in organized groups was studied in kindergartens and schools. The overall premises of children's institutions, diet and rations, educational programs in the study communities corresponded to those in the control communities. The material, living, sanitary, hygienic and medical-preventive conditions of the children in the groups studied did not differ from those of the control groups. All children underwent an initial examination by a pediatrician, neurologist, and endocrinologist. Their state of health indicated normal physical development without visible pathological disorders of the internal organs and in particular the circulatory organs. Subsequently, each year, children were examined according to a similar scheme, which made it possible to build a dynamic observational database.

The health status of preschool children aged 5-6 years was studied in a kindergarten located in a specially constructed two-story building at a distance of 100-120 m from the antenna field. The children lived within a radius of 500 to 600 m from the transmitting antennas in single-storey houses and collective houses of two to five storeys. The intensity of EMF on the territory of the kindergarten (yard, playgrounds, summer verandas) was 7-12 V/m, in the premises of the building 7-10 V/m, on the territory open in places where children live from 6 to 0.5 V/m, in residential areas from 4 to 0 V/m.  $6 = 100,000 \text{ uW/m}^2$

The health status of schoolchildren (groups of children aged 11-12 and 13-14 years) was studied in two settlements, each with a powerful medium- and short-wave radio station. In the first, an eight-year school (a special two-story building) was located 300 m from the transmitting antennas. The intensity of EMF on the territory of the school varied between 4 and 6 V/m, in closed premises between 2 and 4 V/m, in the rooms (three-story brick buildings) where children lived between 2 and 0 V/m, in the adjacent territory between 7 and 0.5 V/m. In the second case, the establishment was located within a radius of 1.5 km from the antenna field. The secondary school (one-story building) was located at a distance of 350 m from the transmitting antennas. The field intensity in the classrooms was 4-6 V/m, on the territory of the school (yard, stadium) 7-8 V/m; in houses where children from 1 to 9 V/m lived, in the open territory near houses from 4 to 13 V/m.

The results of studies of the higher nervous activity of children living in areas where radio centers were located allowed the authors to speak with certainty about the violation of the functional state of the cerebral hemispheric cortex. However, it was not possible to highlight age differences in the revealed changes in the effect of electromagnetic energy, although the study of the functional state of the higher nervous activity of children, which determines their mental efficiency, was carried out taking into account the particularities of age. So, changes in higher nervous activity, in particular a decrease in the efficiency and quality of attention, were observed in children of all age groups who were in the zone of action EMF. Despite the fact that the volume of work performed for a certain time by students in the observation groups did not differ significantly from that of control students, the quality of school tasks performed for a certain time by students in the observation groups did not differ significantly from that of the control students.

However, the quality of school tasks performed by children exposed to electromagnetic energy

was significantly lower. The increase in the number of errors (omissions, corrections, incorrectly crossed out letters) indicated a decrease in the quality of attention due to the weakening of active inhibition and the development of sequential inhibition in the cerebral cortex .

In children of all major age groups, violations of conditioned reflex reactions were revealed, in particular, a reliable decrease in the values of visuomotor reflexes and an increase in the latency period. In the control groups, fluctuations in the parameters of the activity of conditioned reflexes were insignificant.

According to the author, prolonged stay of children in conditions of EMF influence can lead to a violation of the relationship between nervous processes, their mobility and strength. The data obtained during the work also revealed changes in the activity of the cardiovascular system of children living in the zone of influence of this RF CEM. The results of functional tests testify to the unpreparedness of the cardiovascular system for physical load, rapid fatigability of the heart muscle and the need for a longer period for recovery of impaired myocardial function in children from groups living in conditions of chronic irradiation by EMFs. At the same time, the "negative phase" of the heart rhythm, according to the researchers' conclusion, indicates the mobilization of compensatory mechanisms aimed at restoring disturbed autonomic functions. Data from the orthostatic test, which serves as an indicator of the state of the vascular system and makes it possible to judge the mobility of the mechanisms regulating blood circulation, showed that in children of the experimental groups at rest there was an increase in pulse compared to the control group and the values given in the literature.

Such a reaction, according to the authors of the studies, should be assessed as a sign of changes in vasomotor adaptation due to disruption and suppression of the functions of the sympathetic and adrenal system. Since the features of vegetative lability in adolescence are elements of physiological reactions inherent in this period, the establishment of clear initial manifestations of pathological deviations is extremely difficult, given that autonomic dysfunction is one of the signs earliest clinical stages of various harmful "influences" on the body.

When assessing dermographism, reliable differences between the experimental and control groups were observed in the latency period of dermographism and the duration of intense reddening of the skin at rest and after physical activity. All children examined had predominantly red dermographism.

Different indices of complete phagocytosis were determined in the studies, and the leukocyte formula and number of erythrocytes were evaluated from an immunological point of view. Analyzes of the children's blood images indicate that the red blood cell count was relatively stable in both the experimental and control groups. The same goes for hemoglobin level and color index. However, EMF exposure affected the character of changes in the leukocyte formula with insignificant fluctuations in the total leukocyte count in different age groups. Changes observed in peripheral blood leukocytes indicated significant changes in immunological reactivity in children from the irradiated area. This was evidenced by eosinophilia and basophilia. In school-aged children, the total number of neutrophils increased significantly due to the presence of rod-shaped cells and segmented cells,

alongside neutropenia. Eosinophilia, more pronounced in the 11-12 year old group, and monocytosis in children of the 13-14 year old group were characteristic. All children studied had significant basophilia.

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Thus, the long-term study made it possible to establish that chronic exposure of children 5 to 14 years old to RF EMF leads to developmental deviations and noticeable changes in the central nervous system, including in the state of cognitive functions, in the body's cardiovascular and immune systems.

Taking into account the fact that these disorders were detected during the so-called "preclinical period", the authors are inclined to consider the detected changes as a possible adaptive reaction to the impact of high electromagnetic energy. low intensity frequency. »

### 1. Basophils are a type of [white blood cell](#) who play a role in [monitoring](#)

[immune](#) (such as the detection and destruction of very early cancers) and wound repair.

Basophils can release histamine and other mediators and are involved in the initiation of [allergic reactions](#).

An increase in the number of basophils (basophilia) may occur in hypothyroidism . In [myeloproliferative neoplasms](#) (like [polycythemia vera](#) and [myelofibrosis](#)), a large increase in basophils may occur.

Source: <https://www.merckmanuals.com/fr-ca/accueil/blood-troubles/white-globule-diseases/basophil-diseases>

The image shows a document on the left and a social media post on the right. The document is titled 'Règles sanitaires SP 2.4. 3648-20 « EXIGENCES SANITAIRES ET ÉPIDÉMIOLOGIQUES POUR LES ORGANISMES D'ÉDUCATION ET DE FORMATION, DE LOISIRS ET DE SANTÉ SANTÉ DES ENFANTS ET DES JEUNES »'. It is approved by the Departmental Sanitary Principal of the State, Doctor of the Russian Federation, dated 28 September 2020, n°28. The document outlines sanitary and epidemiological rules for educational institutions. A specific rule states: '1.1. Ces règles sanitaires (ci-après dénommées les Règles) visent à protéger la santé des enfants et des jeunes, à prévenir les maladies infectieuses et non infectieuses de masse (empoisonnements) et à établir des exigences sanitaires et épidémiologiques pour assurer des — sûres pour les activités éducatives, la fourniture d'activités éducatives. et les services de formation, l'entraînement sportif, les soins et la garde d'enfants, y compris les exigences en matière de'. A red line underlines the text: '3.5.3. À des fins éducatives, les communications mobiles ne sont pas utilisés.' Below this, it says: 'L'installation de stations de base cellulaires mobiles sur le territoire des établissements d'enseignement n'est pas autorisée.'



The social media post on the right is from Viatcheslav Volodine (@vv\_volodin). It features a red lightning bolt icon and contains the following text: '1. C'est interdit en cours utiliser le téléphone sauf en cas d'urgence (sans aucune réserve). 2. La classe ouvrière est revenue à l'école comme matière obligatoire.' Below this, it says: '! Modifications de la loi « Sur éducation»: 1. Utilisation interdite en cours téléphones portables (sauf cas d'urgence). Vos parents ont-ils discuté de ce problème — avec vous ? les enseignants ont demandé de soutenir cette norme. La décision prise améliorera la qualité l'éducation de nos enfants.'

Details :

[Russian recommendations for children's digital safety](#)



Table 1. List of EMF Hazard and Prohibition Signs for Wireless Users and General Public

	<p>Electromagnetic field. Be Careful</p>	<p>Warning sign. For marking of personal communication devices that the general population uses - a mobile phone, smartphone, tablet, and so on</p>
	<p>Electromagnetic field. Danger to pregnant</p>	<p>Warning sign. Designed for placement on electromagnetic field sources in direct contact with pregnant women</p>