

# ON BIOLOGICAL INFLUENCE OF WIDE RANGE NON-IONIZING EM RADIATION AND ITS BIORESONANCE BALANCING PREVENTION

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## ABSTRACT

Research in previous decades indicates an important epigenetic role of stress (including the so-called EM smog from a number of electrical devices in a wide EM range) in the development of a number of psychosomatic disorders. Therefore, a correct and comprehensive discussion is needed about the non-thermal effects of EM radiation in all bands (from ELF through RF / MW) - which is opposed by powerful electrical and telecommunications lobbies, guided by radiation protection standards that are based solely on thermal influences. So, the efforts of mobile device manufacturers are in vain because the acupuncture system is extremely sensitive to very low radiation intensities through a system of non-threshold gap junction (GJ) electrical synapses that permeate the acupuncture system (as well as heart muscle, liver, smooth muscles, and neurons with electrical synapses). Therefore, this paper deals with the biological influence of non-ionizing EM radiation in wide frequency bands, with some bioresonant balancing preventive effects on the human body exposed to harmful influences of non-ionizing EM radiation.

## INTRODUCTION

In 2019 and 2020, dissatisfaction with the announcement of the increasing installation of 5G mobile networks has been spreading on the Internet. Although 5G networks bring undoubted technological advances in multiple Internet acceleration and accompanying real-time automation and robotization (so-called Internet of Things), there are also strong resistances to the spread of 5G networks due to potential health problems and observed environmental effects on flora and fauna.

Certainly of special concern are the potential health effects on the human population. For several decades, I have been researching the nature of psychosomatic diseases based on an imbalance in the activity of the acupuncture system, which is resonantly sensitive in the microwave range between 50 and 80 GHz. Restoring the disturbed acupuncture system to balance is the essence of the so-called *Microwave Resonance Therapies* (MRT) discovered in the late 1980s and applied in accordance with the knowledge of *Traditional Chinese Medicine*. Soon afterwards, intensive multidisciplinary research has indicated that the acupuncture system behaves like a macroquantum system, which led to the emergence of *Quantum Medicine*, which has been then often called *Information Medicine* or *Quantum Information Medicine* due to its informational specifics [1].

## ON BIOLOGICAL INFLUENCES AND RISKS OF WIDE RANGE EM RADIATION

It has long been thought that the only effect produced by wide range non-ionizing radiation is *thermal*. According to this principle, the recommended limits of human exposure have been formed, issued by the *International Commission on Non-Ionizing Radiation Protection* (ICNIRP), which has published recommendations for exposure to non-ionizing radiation up to 300 GHz [2]. On the other hand, *non-thermal effects* are biological effects that occur at low intensities, i.e. field strengths, which cannot cause a thermal effect and which are sometimes significantly below the recommended exposure limits, with numerous biological effects outlined in ref. [3] and reviewed shortly below.

**HSP proteins.** It was shown that the effects related to heat shock proteins (hereinafter HSP) are not a consequence of thermal effects, i.e. heating. They used a 900 MHz GSM mobile phone, whose radiation caused a temporary increase in HSP protein activity. Chronic HSP protein expression is known to induce or promote oncogenesis, metastasis, or resistance to cancer drugs.

**Genetic effects.** Many studies have shown that RF / MW and ELF radiation causes a change in gene and protein expression in certain cells at intensities that are less than the recommended limits. Increased free radical activity and changes in enzymes involved in cellular oxidative processes are the most consistent effects observed in human and animal cells after exposure to RF radiation.

**Reproductive disorders.** The review of BioInitiative 2012 summarized the evidence regarding infertility and problems with reproductive potential. Most evidence comes from human and animal tests on sperm and male fertility. Mobile phone radiation damages human sperm with very low power densities. Exposure levels are similar to levels as a consequence of carrying a mobile phone in a trouser pocket.

**Neurological effects.** There are many published papers dealing with the influence of RF / MW non-ionizing radiation on brain electrical activity (EEG). The influence of GSM mobile phone on the central nervous system and evoked potentials (ERP) was noticed, as well as on sleep and non-REM sleep phases. It was also shown that exposure to the mobile phone leads to an increase in glucose metabolism in the closest zone of the brain.

**Electromagnetic hypersensitivity & sleep.** EM hypersensitivity is the sensitivity of people to wide range EM non-ionizing radiation (popularly called EM smog) of mobile phones, home cordless phones, mobile phone base stations, laptops or computers, WiFi transmitters, in transportation, or when using household appliances - causing sleep disorders, headaches, nervousness, fatigue, problems with concentration and dizziness.

**Influences on cell biochemical processes.** It has been shown that RF / MW non-ionizing radiation affects and changes the concentration of ions in cells, especially calcium ( $\text{Ca}^{2+}$ ). It seems that the effects of the external EM field on ion concentrations are related to the interaction between the EM field and the ion channels of the membrane, which is manifested by improper operation, i.e. opening of these channels.

## ON BIORESONANCE BALANCING PREVENTION

Contemporary medicine has put its emphasis on the *alopathic-dosed non-economic highly pharmaceutical-oriented* medicine technologies. On the contrary, in the past years more attention is paid to *bioadequate homeopathic-dosed economic bioresonant quantum-informational medicine* technologies, related to usage of such values of the field energy, appearing in normal functioning of human organism. On these lines it has been appeared that stress-induced *psychosomatic diseases* imply the necessity of application of *holistic methods*, oriented to *healing the person as a whole* and not disease as a symptom of disorder of the whole, suggesting their *macroscopic quantum origin*.

All this has given rise to fast development of *Integrative Medicine* in past several decades (cf. website <https://www.imconsortium.org> of *The Academic Consortium for Integrative Medicine & Health*, founded by the end of 1990s, which includes over 70 highly esteemed US academic health centers and affiliate institutions) and *Transpersonal Psychology* (cf. website <http://www.atpweb.org> of *The Association for Transpersonal Psychology*, founded by the beginning of 1970ies, and considered by A. Maslow as the fourth force in psychology, alongside with Psychoanalysis, Behaviorism, and Humanistic Psychology).

In particular, it should be pointed out that Sit'ko with co-authors have revealed *necessary and sufficient conditions* for existence of *macroscopic self-consistent potentials* alongside acupuncture meridians, with EM MW *eigenfrequencies* of healthy and disordered states of the *acupuncture system* (leading subsequently to so-called *Quantum Medicine* [4]), pointing out that living systems are the fourth level of the quantum ladder of Nature (*nuclear-atomic-molecular-biological*), governed by specific macroscopic quantum laws of the *Physics of the Alive* - with following *important characteristics of the acupuncture channels and points* [5]: *channels* have diameter of  $3\div 5$  mm in their surface exits in the acupuncture points; *refraction index* within channels is  $n = 1$  as in the vacuum, while being  $5\div 6$  in the body outside channels.

*Exotic aspect of acupuncture channels* (of strange vacuum-like  $n = 1$  refractive index) *may be a relic of the external inflow of vital energy / prana / chi / uncreated light / Whole-Self Radiance* (via miniature *quantum-gravitational tunnels* stabilized by exotic nature of *vital energy* as the quantum vacuum fluctuations in these tunnels [1,6]), indicating that this type of exotic transpersonal communications provides *continuously-refreshing interaction* between two mentally-addressed persons and thereby *transpersonal stabilization of quantum-entanglement* of their acupuncture systems / consciousnesses, i.e. *prevents room-temperature decoherence* of their biological macroscopic quantum-entangled states by interaction with their local bodily environments (*in contrast to the situation in microworld*, where quantum-entangled particle-pairs must be *well isolated from the environment*).

In conclusion, it is very intriguing that quantum-information balancing of disturbed psychosomatics can become very topical in the context of emerging new 5G mobile technologies, whose projected MW range (24-90 GHz) in full development will overlap with the MW range of the acupuncture system (50-80 GHz) - where bioresonant deviations of only a few GHz on different acupuncture meridians are the cause of numerous psychosomatic diseases [4]. Along this line, applying *holistic anti-stress* recommendations for *regular balancing* of the acupuncture system / (individual and collective) consciousness can become significant for *improving psychosomatic status of the general population* [3].

## CONCLUSION

So, although digital communication technologies are increasingly evolving and becoming more widely used, especially new generations of mobile phones and local wireless networks - the considered *potentially high-risk effects* of EM MW range *non-ionizing radiation* require deeper experimental and theoretical research, to determine whether they are really that dangerous, with appropriate measures to be taken. Until everything related to EM MW is not deeply understood, it is necessary to be more careful in handling the devices that emit them and to *avoid unnecessary exposure*, with additional prevention methods for *regular balancing* of the acupuncture system / (individual and collective) consciousness.

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