

Friday, January 21st, 2022

Electrosmog – pure stress for our body!

Our body responds always and anytime to our environment. Solar flares, for instance, create significant fluctuations in the Earth's magnetic field and affect biological systems on Earth. Moon phases¹⁾ also cause biological reactions in nature and noticeably influence some people in their well-being, e.g. through their sleep or hormonal system. A weather change, triggered and accompanied by changes in charges in the atmosphere, literally gives many people a "headache". Fact is: **We are all electro sensitive!** For every living cell, every organism on this planet, constantly reacts to electromagnetic impulses, whether these are of natural or technical origin. This fact needs to be remembered for the following remarks.

Physicians and naturopaths have been noticing a worrying trend in recent years: More and more people are experiencing chronic illnesses, with complex complaints and symptoms. Patients who suffer from digestive problems today, for example, often also suffer at the same time from chronic inflammation, a weak immune system, concentration problems, lack of energy, joint problems and chronic pain or even autoimmune diseases. There is not ONE symptom – ONE cause. Complex disease patterns such as the one just described are becoming more and more frequent and occur increasingly in young people and even in children. Especially autoimmune diseases, neurological diseases, metabolic disorders, allergies, burnout syndrome and immune deficiencies are increasing. But why?

Our body is essentially built to maintain its internal balance (also known as homeostasis). To this end, the cells have a wide range of mechanisms to compensate even over a longer period of time for various stress factors. In this way, time and time again, our cells create a balance. Even deeply rooted diseases can be reversed by our

body. So here we are speaking of the self-healing powers of the body. But for selfhealing to be possible at all, there are two functions in particular that are essential in our cells, namely energy production for one and the cellular immune system for the other. In both processes, the mitochondria play a central role.

Mitochondria are cell organelles – so to speak "little organs" in the cell plasma. They occur in great numbers in all our cells. Mitochondria have their own DNA and can divide and multiply independently of the body cell. **One of the most important functions of our mitochondria consists in producing energy for the body.** For this reason, mitochondria are



also referred to as "cell power plants". Organs with high energy consumption, such as the cells of the muscular, nervous or hormonal systems, have thousands of mitochondria per individual cell in order to fulfil their respective tasks in the body.

Together with energy production, the mitochondria also regulate many other functions in the cell. For example, they produce cell protective substances and they help with cell detoxification. Without them, there is no regulated cell metabolism and no self-functioning cells.²)

The mitochondria are therefore extremely important to neutralise chemical and physical stress factors such as toxins or mobile telephony respectively microwave radiation. But this is exactly where the problem lies: **the mitochondria, especially the mitochondrial DNA, react extraordinarily sensitively to external influences.** Toxins, psychological and physical stress or radiation and environmental toxins can quickly impair the function and performance of the mitochondria. Then there is a reduction in cellular energy, immune power and detoxification capacity. The ability of the cell to compensate decreases drastically – and with it also the body's self-healing power.³⁾

Stress makes the body "rust"

When the mitochondria are weakened, the entire cell metabolism is turned on its head: Instead of energy and protective substances for the cells, aggressive free radicals are now produced. These are highly reactive molecules that trigger a kind of



"rust process" in the cells if they are not neutralised in time. Cell structures then literally rust like a piece of metal. In the end, the cells thus lose their function. If the body can neutralise this process again with suitable protective substances, everything remains in the green zone. We call these protective substances antioxidants, they are, in a way, "anti-rust agents". If, however, the body has not

enough self-produced or supplied antioxidants at its disposal and/or if too many free radicals are produced, and **if the body is therefore no longer able to reverse this process of constant "rusting", then we talk about oxidative stress**.⁴⁾

Through the oxidative stress, a fateful downward spiral is set in motion: the mitochondria and other cell structures are damaged more and more. When such a situation continues for a longer period of time, whole tissues, organs and functions can be affected – the "rust" eats its way through the entire body. The weakening of the immune system may show up at first as a constant lack of energy or as a susceptibility to illness. **Ultimately, however, these successive processes can lead to serious diseases.** In the 1920s, the German physiologist Otto Warburg already correctly recognised that a weakening of the mitochondrial function can lead to severe derailments of cell regulation up to and including cancer.

Experts agree today that **mitochondrial dysfunctions (so-called mitochondriopathies) and the associated oxidative stress play a central role in the development of all of today's civilisation diseases.** Allergies, rheumatism, hormonal disorders, fibromyalgia, the burnout syndrome, cancers, the increasingly occurring multiple chemical sensitivity syndrome (MCS) or chronic fatigue syndrome (CFS) are mainly based on reduced mitochondrial function. So mitochondria are extremely susceptible to stress. If various major and minor stress factors come together, mitochondrial performance quickly decreases. Our cellular power plants reduce their performance level as a result of stress, their DNA is damaged, partly mitochondria die off completely. As I said – an ominous downward spiral.

Mobile phone radiation – the new environmental toxin

What is important, is to understand that Nature has basically arranged everything excellently; it provides us with everything we need to maintain our health if we lead a balanced lifestyle. But nowadays our bodies are faced with a multitude of stress factors, starting with our hectic lifestyles. And as we have seen, among these stressors are environmental toxins. They can also severely disrupt mitochondrial function. Over the last 25 years, one "environmental toxin" has become increasingly strong: the technical electromagnetic contamination. There is hardly a spot left on Earth that is not contaminated by technical microwave radiation from our communication technologies. This radiation causes biological effects in every cell. Technically generated electromagnetic radiation is like the poison blanket over certain major metropolitan areas, hence the word "electrosmog". It permeates all life, and it can even amplify other harmful influencing factors, such as chemical toxins. The fact that technical microwave radiation has biological effects in addition to thermal effects has been proven in thousands of studies. (More detailed information on this can be found on our website, especially in other articles and videos in our series "How artificial electromagnetic radiation harms life"). ⁵⁾

For many years, there has been very specific knowledge of the formation of free radicals, oxidative stress and the subsequent mitochondrial and cell damage caused by technical radiation. One of the leading scientists in this field is Martin L. Pall, professor emeritus of biochemistry and basic medical sciences at Washington State University, who has been researching and informing the public about these connections for many years. He has worked out in detail exactly how – **even far below the applicable exposure limits and without any detectable heating of the tissue** – considerable damage is caused by irradiation via a sequence of biochemical processes in our cells. After a certain period of exposure, discomfort, illness or health restrictions can slowly make themselves noticeable through the most diverse organs, tissues and functions of our body.

When the cellular metabolism goes out of whack

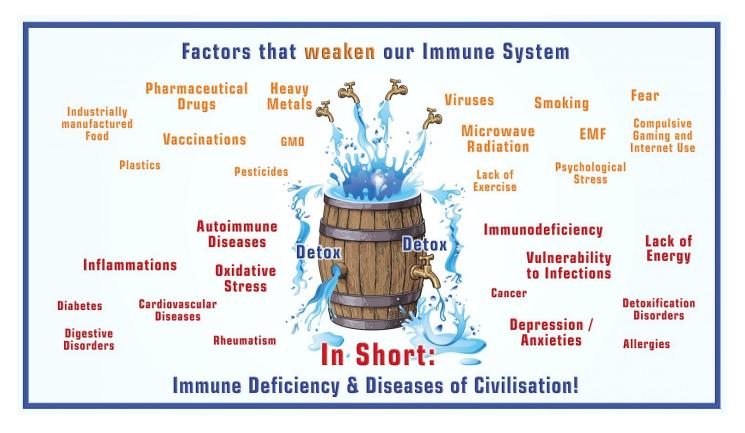
Professor Pall explains that electromagnetic fields and radiation essentially resonate with structures in the human body⁶⁾. On their outer skin, the cell membrane, our cells are equipped with countless openings, the cell receptors. These receptors include, among others, the voltage-gated calcium channels (VGCC), which are responsible for the inflow and outflow of calcium in the cells. Figuratively speaking, they are like little switches on the cells. They are activated by even the slightest electrical voltage, causing them to open. In this way, calcium now flows into the interior of the cell. Calcium stimulates the cell organelles (i.e. the mitochondria) to trigger processes or release substances (for example hormones, neurotransmitters or inflammatory substances). This sets off a whole cascade of further reactions in the body.⁷⁾ This continues until a feedback response reports the tasks to be performed as completed. In the natural, healthy state, the calcium channels now close again. For this, the cell needs sufficient energy and also magnesium, the natural opponent of calcium. This is how nature intended it, this is how our body regulates itself, this is how cells communicate with each other and this is how they regulate their necessary metabolic processes.

However, if strong, technically generated impulses come into play, to which we are exposed over a longer period of time and whose impulses are much stronger than natural electromagnetic impulses, this accordingly has a much stronger influence on said calcium channels. The technical impulses now cause the calcium channels to remain open for an overly long time, they literally become permanently stretched open. As a result, calcium flows into the cells in unnaturally high quantities and over a longer period of time. As a result, the sensitive chemical balance of the cell fluid goes into disarray. If we have a permanent calcium surplus in our cells, an increased number of free radicals are formed in the cell fluid respectively the cell plasma. Remember: free radicals lead to oxidative stress

Oxidative stress not only damages our mitochondria, but also changes our cells with lasting effect; they are then in the state of a rusted screw. Although you can still recognise that it is a screw on the outside, it has long since lost its function of being able to tighten something with it due to the oxidised thread. Our cells can then still be recognised as nerve, liver or mucous membrane cells, but they can hardly perform their function any more.

Electrosmog exposure is the straw that breaks the camel's back

Are chronic diseases therefore caused by technical electromagnetic radiation? No, not only. When it comes to destabilising our cellular health, many different factors come into play. Nutritional deficiencies, smoking, lack of exercise, stress, various exposures to environmental toxins, various heavy metals (including from amalgam fillings), and even thoughts and feelings also play a role. Our bodies today are affected by a multitude of different factors. However, artificial electromagnetic radiation is one of the main culprits because it massively overloads our cell metabolism with free radicals. Nowadays, we are exposed to these influences practically everywhere and all the time. This is mainly because in the last 20 years the intensity of technically generated fields has multiplied due to the many different applications in our entire habitat. So we can say: electrosmog exposure is not the only problem for our body – but it is a highly potent fire accelerant for any already existing smouldering fire!



So what can be done? **Above all, you must definitely ensure that you are exposed to electromagnetic fields as little and as infrequently as possible.** Communication devices should be connected to the cable whenever possible. This is especially true for the office or your own flat. Most importantly, keep your sleeping place free of electrosmog so that your body can regenerate, at least at night. Using suitable measuring methods, specialists can show you what the electromagnetic radiation exposure in your living space looks like. Mobile phones should only be used for making calls while on the go. Do not hold the unit directly to your head. Many additional practical suggestions and explanations can also be found on the website and in the publications of The World Foundation for Natural Science^{8) 9)}.

It is also important how you eat. **Antioxidants are able to neutralise free radicals and can help restore the balance in the cells.** A diet rich in vital substances helps here. The fresher and less contaminated the food, the higher is its antioxidant capacity! Therefore, organic



food is the order of the day. Colourful, rich-tasting foods contain large amounts of antioxidants.¹⁰⁾.

These include berries, fruits in general, but also tomatoes, onions and cabbage, ginger, turmeric, herbs and spices in general, vegetable oils, cocoa or even green tea. Depending on the degree of exposure, it can also make sense to support the body specifically with high-quality food supplements. Moving in the fresh air, breathing exercises and warming sunlight can also help your body. And in any case, drink plenty of pure water, to which it is best to add each time a pinch of unrefined rock or sea salt.

The big beneficiaries of all this are our little all-rounders, the mitochondria. They do their best around the clock to supply our cells and thus our body with energy and protective substances against radiation stress and other stress factors. Help the mitochondria do their vital work! For your health's sake!

References

- 1 Cajochen C. et al. (2013); Evidence that the Lunar Cycle Influences Human Sleep; Current Biology, Volume 23, ISSUE 15, P1485-1488, August 05, 2013; DOI: <u>https://doi.org/10.1016/j.cub.2013.06.029</u>
- 2 Erpenbach K., Schröder H. (3. Auflage 2018); Voll fertig! Bin ich nur müde oder schon krank?; VAK Verlags GmbH, ISBN 978-3-86731-178-6, 39 ff.
- 3 Kuklinski B. (1. Auflage 2015); Mitochondrien Symptome, Diagnose und Therapie, Aurum, ISBN 978-3-89901-894-3, 158-164
- 4 Kuklinski B. (1. Auflage 2015); Mitochondrien Symptome, Diagnose und Therapie, Aurum, ISBN 978-3-89901-894-3, 57 ff.
- 5 <u>https://www.naturalscience.org/publications/animals-and-plants-under-stress-from-radiation/</u> accessed on 18/01/2022
- 6 Pall M. L.(1. Auflage 2019); 5G als ernste globale Herausforderung. Wirkungen des Mobil- und Kommunikationsfunks, Kompetenzinitiative zum Schutz von Mensch, Umwelt und Demokratie e. V. Heft 12., ISBN 978-3-9820686-0-2, 25 ff.
- 7 Pall M. L. (2009); Explaining "Unexplained Illnesses", Inforama Healthcare, ISBN-10: 0-7890-2388-1, 13 ff.
- 8 <u>https://www.naturalscience.org/en/</u>, accessed on 18/01/2022
- 9 The World Foundation for Natural Science (2020); <u>Attention Radiation How to protect yourself</u> <u>and your family</u> (brochure
- 10 Erpenbach K., Schröder H. (3. Auflage 2018); Voll fertig! Bin ich nur müde oder schon krank?; VAK Verlags GmbH, ISBN 978-3-86731-178-6, 151 172.

Published Friday, January 21st, 2022 in the categories <u>Effects and Harm</u>, <u>Health</u>, <u>Microwaves &</u> <u>Mobile communications</u>

https://www.naturalscience.org/news/2022/01/electrosmog-pure-stress-for-our-body/

©2022 The World Foundation for Natural Science