

ELECTROMAGNETIC WAVES

WHAT HIDDEN RISKS?

UNDERSTAND TO ACT BETTER



BY JOSYE TRIMOLET Comosystems Distributor
for New Caledonia and Australia

www.comosystems.com



INTRODUCTION

**Electromagnetic Waves:
A Daily Reality to Master!**

From your smart alarm clock to your smartphone, Wi-Fi and cell towers, an ocean of electromagnetic waves (EMF) constantly surrounds us. This technological revolution, which has transformed our lives in just a few decades, is now raising essential questions about our health.

Faced with growing concerns, amplified by the arrival of 5G, the debate is raging. On one side, alarmist warnings. On the other, sometimes blind optimism. Between these two extremes, where is the truth hidden?

This guide offers you a unique approach, rigorously scientific but accessible to all. Without dramatization or denial, you will discover the real impact of waves and, above all, the concrete ways to protect yourself from them effectively.

Our promise? To give you the keys to continue to enjoy modern technologies, while preserving your health and that of your loved ones. Simple, practical and tested solutions that fit naturally into your daily life.

SUMMARY

1. **1.Waves Demystified**
2. **Natural waves & artificial waves**
 - **Electromagnetic spectrum**
 - **Daily sources**
2. **Impact on health?**
 - **What the experts say**
 - **Symptoms and warning signs**
3. **Protection Instructions for Use**
 1. **Understanding DAS/SAR**
 - **Why avoid blocking waves**
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CHAPTER 1

Waves Demystified

Electromagnetic waves (“EMF” for “Electromagnetic Fields” or “EMF” for “Champs ElectroMagnétiques”) are energy fields produced by moving electrical charges. They are omnipresent in our environment and are divided into two main categories: natural and artificial.

Natural electromagnetic waves:

Natural EMFs have been around forever and are generated by natural phenomena including:

The Earth’s magnetic field: It protects the Earth from solar radiation.

Thunderstorms and lightning: They produce electric and magnetic fields.

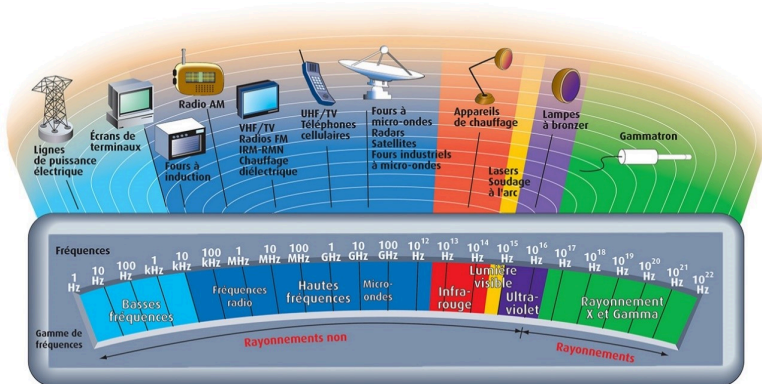
Solar radiation: The sun also emits electromagnetic radiation in the form of visible, infrared and ultraviolet light.

These waves are fluid and recognized by living organisms.

Artificial electromagnetic waves:

With the technological development, artificial sources of EMF have multiplied. These fields are generated by the use of electricity and electronic devices, which now dominate our daily lives and were not part of our environment a few decades ago.

These artificial EMFs propagate through pulsed, jerky, aggressive waves that are not recognized by living organisms.

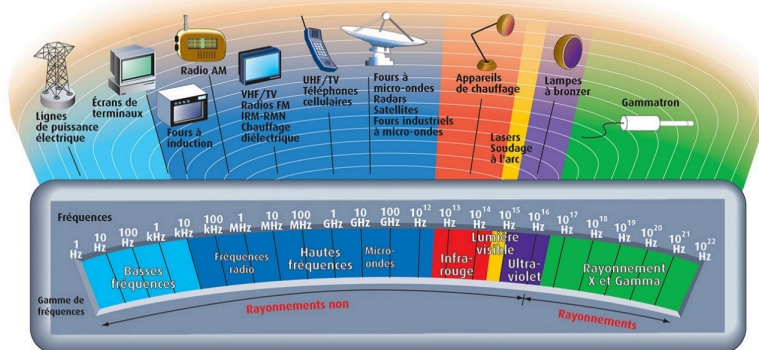


The Electromagnetic Spectrum:

Imagine a piano: from low notes to high notes.



The electromagnetic spectrum works the same way, ranging from "low" waves ("ELF" Extremely Low Frequency, or "Very Low Frequency") to "high" waves ("High Frequency") through Microwaves.



**Differences between natural and artificial EMFs
- Let's illustrate:**

Imagine a natural spring in the mountains... The water flows harmoniously, with a regular and constant flow. This is how our body perceives natural waves: a harmonious, rhythmic flow, to which our cells have been adapted for millions of years. Like this pure source, natural waves (the Earth's magnetic field, solar radiation) follow predictable cycles that our body has learned to interpret and use.

Now, visualize a leaky faucet...

The drip is irregular, jerky, disruptive. This is exactly how our body experiences artificial waves: as abrupt, chaotic and discontinuous impulses. These man-made waves (Wi-Fi, mobile telephony, electrical appliances) emit chopped, pulsed signals that our body struggles to recognize and manage.



This fundamental difference between the "natural flow" and the "artificial signal" largely explains why some people can be sensitive to modern technologies, while natural waves do not affect them.

Daily sources



Exposure to Electromagnetic Waves in a Home and Its Surroundings

In a home, electromagnetic fields (EMF) come mainly from electrical appliances and communication networks. Low frequencies (ELF) are generated by electrical installations and household appliances, while high frequencies are emitted by wireless communication technologies.

The main sources of exposure are:

Inside the house:

1. Household appliances:

- Microwaves, refrigerators, washing machines, and dryers emit ELF when in operation.
- Hair dryers and electric razors, close to the body, create more intense localized fields.

2. Electrical networks:

- Electrical cables in walls and ceilings emit ELF continuously.
- Smart meters (Linky, for example) combine ELF and radio frequency (RF) emissions.

Daily sources

3. Technologies sans fil :

- Wi-Fi routers, smartphones, tablets, and laptops emit RF, even when idle.
- Connected objects (home automation, smart speakers) increase constant exposure.

Lighting:

- Compact fluorescent lamps (CFLs) and some types of LED lighting emit weak but detectable fields.

Outside the house:

Power lines and transformers:

- High voltage power lines and neighborhood transformers produce ELF fields that can penetrate nearby homes.

Telecommunications antennas:

- Cell phone towers (4G/5G) and cell phone towers emit RF over long distances. Their intensity decreases with distance, but homes in the immediate vicinity can be exposed to significant levels.

Public Wi-Fi base stations:

- Hotspots on streets or parks increase exposure in dense urban areas.

Daily sources

3. Airports and/or Military Bases:

The risks of radars for surrounding homes

Radars used by aircraft during landing phases and military installations, such as naval or air bases, emit powerful electromagnetic waves which can pose risks to the health of nearby populations.

Radars d'aviation :

High-frequency (microwave) radars used for navigation and landing emit high-intensity pulsed signals to scan the area around airports. These emissions reach nearby homes, exposing residents to energy levels that can affect biological systems. Studies show that pulsed microwaves can alter the blood-brain barrier, promote oxidative stress, and influence the central nervous system.

ELF military bases and radars:

Military communications and detection radars, often used in extremely low frequency (ELF) ranges, penetrate deep into biological materials and tissues. ELF waves are associated with impacts on cellular regulation, disruptions to heart rhythm, and possible effects on cellular regeneration. Their wide distribution around military bases can pose a health concern for local communities chronically exposed.



Daily sources

Workplaces / Schools

Many professional environments, such as offices, factories or schools, expose their occupants to continuous electromagnetic radiation from electronic devices such as interactive displays, smart boards, Wi-Fi routers and industrial equipment:

- **Smart Schools and Boards:**

Interactive whiteboards, often connected via Wi-Fi or Bluetooth, emit microwave waves continuously. Prolonged exposure to these devices, combined with emissions from Wi-Fi routers and mobile devices used by teachers and students, can affect health. Research shows that Wi-Fi waves, even at low levels, can cause cognitive impairment, oxidative stress and sleep disturbances in children, who are particularly sensitive to them.

Offices and factories:

In offices, equipment such as computers, wireless printers and VoIP phones generate constant radiation. Prolonged exposure to these waves can induce symptoms such as headaches, chronic fatigue or concentration problems (electromagnetic hypersensitivity syndrome).

In factories, industrial machinery and wireless communication systems often emit high and low frequency waves, increasing the risks for exposed workers.



Daily sources



Exposure to Electromagnetic Waves in Modern Vehicles

Hybrid and electric vehicles create a particular environment in terms of electromagnetic waves. This situation is due to several factors:

Electrical equipment: motors, batteries and connected systems (GPS, Bluetooth, Wi-Fi) generate electromagnetic fields.

The "cage" effect: the metal body confines the waves in the passenger compartment, limiting their dispersion;

Prolonged exposure: During journeys, passengers are exposed to these waves continuously, which raises questions about:

Risks for electrosensitive people;
Potential long-term health impacts.

Conclusion

Exposure to EMF in and around the home is almost unavoidable in a modern environment. However, simple measures, such as turning off unused appliances, moving beds away from electrical walls, or using protective devices such as Compensating Magnetic Oscillators (CMOs), can reduce potential risks.

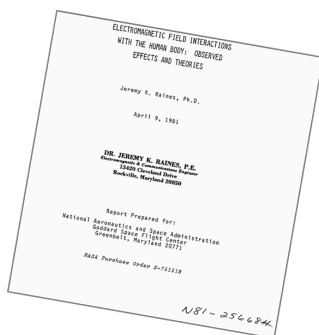
CHAPTER 2

IMPACT ON HEALTH

The effects of electromagnetic fields (EMFs) on human health have been debated for decades. Although some scientists remain cautious about their conclusions, several studies and reports have highlighted potentially harmful impacts of EMFs.

What the experts say

As early as 1981, NASA published a report titled "Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories," listing various physiological effects observed in humans exposed to electromagnetic radiation. The document mentioned symptoms such as headaches, fatigue, nervous system exhaustion, muscle pain, and even increased risks of cancer.



1981 - Yannon trial in the United States:

In 1981, the American justice system recognized microwaves as responsible for the death of a telecommunications technician.

Vol. I No: 4

A Monthly Report on Non-Ionizing Radiation

April 1981

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MICROWAVE DEATH AWARD UPHELD IN COMPENSATION COURT, NY TEL APPEALS AGAIN

In a precedent setting decision, the Workers' Compensation Board of New York has upheld a previous ruling that Samuel Yannon, a New York Telephone Company radioman, had died of overexposure to microwave radiation. On February 26, the three member Board panel found that "there was a direct causal relationship between decedent's exposure to microwave radiation during his employment and his subsequent disability all of which ultimately resulted in his death." New York Telephone immediately filed another appeal, taking the case to the Appellate Court of New York for review. (See p. 5 for complete text of decision.)

The case, brought by Yannon's widow, Nettle, in 1974, is the first to successfully establish chronic exposure microwave radiation as a cause of death. Yannon spent the last 15 of his 42 years with the phone company adjusting microwave relay equipment on the 87th floor of the Empire State Building.

As a result of the February decision, New York Telephone has paid more than \$29,000 in retroactive awards to Mrs. Yannon and will now pay her \$45 a week for life, or until she remarries. (Yannon has already received the award, regardless of the appeal, as dictated by a New York State law.) "I never gave up," Mrs. Yannon says of her six-year case against the phone company. "They

(continued p. 4)

The Sydney Morning Herald, Thursday, April 23, 1981

1981

Procès Yannon
aux États-Unis :

la justice avait reconnu
les micro-ondes comme
responsables de la mort
d'un technicien des
télécoms.

Telephone radiation blamed for illness US court battle over death by microwaves

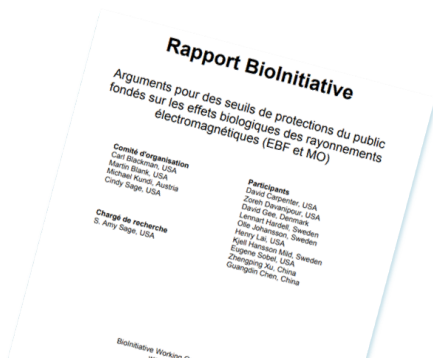
NEW YORK, Wednesday — Microwaves of radio equipment in the United States could face scrutiny after a federal court in New York ruled that a technician died of a radiation-related illness.

The ruling, which came in a case brought by the widow of a New York Telephone Company radioman, Samuel Yannon, who died in 1974, is the first to establish chronic exposure to microwave radiation as a cause of death.

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In 2007, the BioInitiative report, prepared by an international group of scientists, compiled more than 1,500 studies on the effects of EMF. This report, validated by the European Environment Agency, the European Parliament and the Parliamentary Assembly of the Council of Europe (in 2011), highlights growing evidence of health risks, including alterations of the nervous system, sleep disturbances and potential increases in certain types of cancer.



An update of this report in 2012 reinforced these conclusions, calling for stricter precautionary measures to limit exposure to EMFs.

Last updated May 2022

focuses on the biological effects of exposure to low-level electromagnetic fields, including extremely low frequency electromagnetic fields (ELF-EMF) and radio frequencies (RFR).

BioInitiative 2012

A Rationale for Biologically-based Exposure Standards
for Low-Intensity Electromagnetic Radiation

[HTTPS://BIOINITIATIVE.ORG](https://bioinitiative.org)

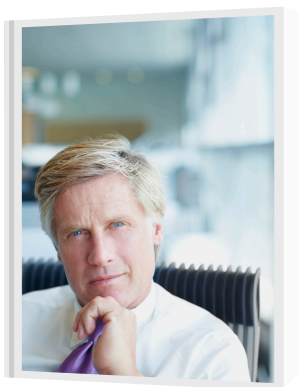
www.comosystems.com



Historically, EMFs were also used as weapons during the Cold War, most notably in the Soviet "Project Woodpecker," which exploited specific frequencies to disrupt communications and potentially affect human health.

See also: "Havana Syndrome", "Moscow Signal", "Russian Woodpecker" or "Duga" used between 1976 and 1989.

Despite these data, part of the scientific community remains reserved, citing the need for additional research to establish definitive causal links. Nevertheless, the evidence accumulated over the decades suggests that the negative effects of EMF cannot be ignored and deserve sustained attention.





In June 2008, Dr. David Servan-Schreiber initiated a call for caution regarding the use of mobile phones, co-signed by twenty renowned physicians and scientists. This call highlighted the potential health risks of electromagnetic waves and recommended precautionary measures, such as the use of earpieces and limiting exposure, particularly in children. This initiative elicited mixed reactions within the medical community and helped raise public awareness of the possible dangers associated with intensive use of mobile phones.

Juin 2008

Ces dix-neuf scientifiques, pour la plupart oncologues, rassemblés par David Servan-Schreiber, auteur d'Anticancer*, pensent que le risque est trop fort pour être couru.

Téléphone portable : la mise en garde de vingt éminents scientifiques

Les 20 signataires

Dr Bernard Asselain, chef du service de biostatistiques du cancer, Institut Curie.

Pr Franco Berrino, directeur du département de médecine préventive et prédictive de l'Institut national du cancer, Milan, Italie.

Dr Thierry Bouillet, oncologue, directeur de l'Institut de radiothérapie, hôpital Avicenne, Bobigny.

Pr Christian Chenal, professeur émérite de cancérologie et ancien responsable de recherche CNRS « Radiations, Environnement, Adaptation ».

Pr Jan Willem Coebergh, cancérologue, département de santé publique, université de Rotterdam, Pays-Bas.

Dr Yvan Coscas, cancérologue, chef du service de radiothérapie, hôpital de Poissy-Saint-Germain.

Pr Jean-Marc Cosset, chef de département honoraire d'oncologie-radiothérapie de l'Institut Curie.

Pr Devra Lee Davis, chef du département de cancérologie environnementale, université de Pittsburgh, Etats-Unis.

Dr Michel Héry, cancérologue, chef du département de radiothérapie, hôpital Princesse, Grace, Monaco.

Pr Lucien Israël, professeur émérite de cancérologie, université Paris-XIII, membre de l'Institut.

Jacques Manileau, ingénieur, ancien physicien au Commissariat à l'énergie atomique et au CNRS Orsay.

Dr Jean-Loup Mouysset, cancérologue, président de l'association Ressource.

Dr Philippe Presles, président de l'Institut Moncey de prévention santé, Paris.

Pr Henri Pujol, cancérologue, ancien président de la Ligue nationale contre le cancer.

Joël de Rosnay, docteur ès sciences.

Dr Annie Sasso, directrice de l'équipe d'épidémiologie pour la prévention du cancer-Inserm, université Bordeaux-II.

Dr Simone Saez, ancien chef de service du Centre de lutte contre le cancer Léon-Bérard, Lyon.

Dr David Servan-Schreiber, professeur clinique de psychiatrie, université de Pittsburgh.

Dr Pierre Souvet, cardiologue, président de l'association Santé Environnement Provence.

Dr Jacques Vilcoq, cancérologue, clinique Hartmann, Neuilly-sur-Seine.

5G APPEAL

SCIENTISTS AND DOCTORS WARN OF POTENTIAL SERIOUS HEALTH EFFECTS OF 5G

SEPTEMBER 13, 2017

"We are more than 180 scientists and doctors from 37 countries calling for a moratorium on the deployment of 5G – the fifth generation of mobile telephony – until serious and independent health and environmental impact studies have been carried out prior to any marketing.

5G will significantly increase exposure to radio frequency electromagnetic fields (RF-EMF) and will add to the electromagnetic smog already produced by 2G, 3G, 4G, Wi-Fi, etc., which has been proven to be harmful to humans and the environment."



www.5gappeal.eu/about

www.comosystems.com

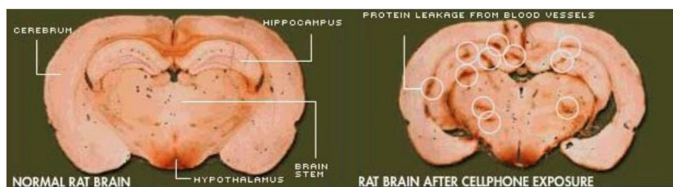


Pr Pierre Aubineau

Doctor in neurophysiology and former research director at the CNRS in Bordeaux

This specialist in neurobiology has conducted extensive research on the effects of electromagnetic waves, particularly with regard to the opening of the blood-brain barrier and the vascular permeabilization of the dura mater. These phenomena are considered pathological, because they allow the passage of undesirable substances and lead to the formation of edema.

Professor Aubineau's work has been widely recognized in the scientific community.



Cerveau normal de rat

*Cerveau de rat après exposition aux rayonnements d'un GSM
(fuites de protéines provenant de vaisseaux sanguins)*

Pr Martin L. PALL

MARTIN L. PALL
PROFESSOR EMERITUS OF
BIOCHEMISTRY AND BASIC
MEDICAL SCIENCES



Professor Martin L. Pall, a biochemist and professor emeritus at Washington State University, has conducted extensive research on the effects of low-frequency (ELF) electromagnetic fields (EMFs) on human health. He has identified several mechanisms by which these fields can affect the body, including through the activation of voltage-gated calcium channels (VGCs).

According to his work, exposure to ELF can cause a series of biological effects, including:

1.DNA damage (19 articles)

EMFs cause DNA breaks (single-stranded, double-stranded) and base oxidation, leading to mutations, cancers, and genetic impacts on future generations.



2.Reduced fertility (16 articles)

- 1.Exposures decrease male and female fertility, hormone levels, and can even lead to irreversible sterility.**

3. Neuropsychiatric effects (23 articles)

- 1.Sleep disturbances, depression, anxiety, memory loss, and other symptoms related to alterations in brain structure and function.**

4. Apoptose (13 articles)

- 1.Programmed cell death increases, contributing to neurodegenerative diseases and decreased reproduction.**

5. Oxidative stress (17 articles)

- 1.Free radicals generated by EMFs cause cellular damage, contributing to many chronic diseases, including cancer.**

6. Endocrine disruption (11 articles)

- 1.Hormone levels (steroids, insulin, neurohormones) become unbalanced, leading to negative effects on metabolism and reproduction.**



7. Increased intracellular calcium (14 articles)

EMFs increase intracellular calcium levels, causing cellular hyperactivity and various biological dysfunctions.

8. Cancer (34 articles)

EMFs increase the risk of cancer (brain, salivary glands, hearing, etc.) via mechanisms promoting initiation, progression, and metastasis.

HEALTH N WAVES

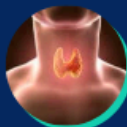
8 EFFETS LIÉS À L'EXPOSITION D' ONDES ÉLECTROMAGNÉTIQUES

NON THERMIQUES



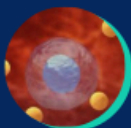
1. Système nerveux.
Risque majoré de
maladie d'Alzheimer

5. Apoptose = maladies
dégénératives/ infertilité



2. Système endocrinien
Perturbations
hormonales multiples

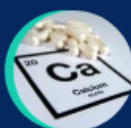
6. Infertilité masculine /
ADN des spermatozoïdes
/ Avortements



3. Stress oxydatif -
Radicaux libres =
maladies chroniques
inflammatoires et/ou
dégénératives



7. Excès de calcium
intracellulaire



4. ADN Cassures de
brins = cancers /
mutations

8. Attaque des cellules =
cancerisation possible
via 15 processus



PR MARTIN L. PALL, PHD
PROFESSOR EMERITUS OF BIOCHEMISTRY AND BASIC MEDICAL SCIENCES

Electrosensitivity in the work accident category

10 OCTOBRE 2018 PAR ESTELLE C

2018

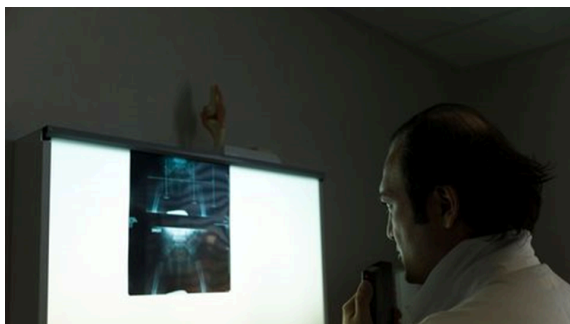
La justice reconnaît pour la première fois
l'électrosensibilité comme la cause d'un
accident du travail



La justice a reconnu qu'un accident du travail était lié à l'électrosensibilité. Une première en France. Photo : BENOIT DOPPAGNE / various sources / AFP

*2019 EHS recognized as an Occupational Disease

According to a judgment of the
administrative court of Cergy-Pontoise
(Val-d'Oise) dated January 17, 2019.



Symptoms and Warning Signs

1. Symptoms of early sensitivity to electromagnetic waves (EHS - ElectroHypersensitivity)

- Unexplained fatigue
- Persistent fatigue even after adequate rest.
- General drop in energy.
- Frequent headaches
- Dull or throbbing pain, often associated with exposure to wireless devices (Wi-Fi, cell phone).
- Difficulty concentrating
- "Brain fog".
- Short-term memory loss, confusion.
- Sleep disorders
- Insomnia or unrestful sleep.
- Frequent awakenings for no apparent reason.
- Feeling of warmth or tingling
- Tingling, unusual warmth, or electrical sensations in the hands, head, or body.
- Stress and increased irritability
- Nervousness, excessive irritability or anxiety without obvious cause.



Symptoms and Warning Signs

2. Symptoms worsened at an advanced stage

- Chronic pain
- Persistent muscle or joint pain, resembling inflammatory pain.
- Severe migraines, resistant to conventional analgesics.
- Neurological disorders
- Dizziness, loss of balance.
- Increased sensitivity to sound or light (hyperacusis, photophobia).
- Heart abnormalities
- Heart palpitations or arrhythmias.
- Increase or variation in heart rate (tachycardia).
- Dermatological problems
- Redness, rash, itching with no detectable allergen.
- Burning sensations on the skin.
- Immune disorders
- Weakened immune system (more prone to infections).
- Chronic inflammations.
- Hormonal changes
- Disruption of hormonal cycles: adrenal fatigue, thyroid disorders.
- Digestive symptoms
- Nausea, abdominal pain.
- Transit disorders (constipation or diarrhea).
- Progression of sensitivity

Symptoms and Warning Signs

3. Intermediate phase

Worsening of symptoms with slower recovery after exposure.

4. Advanced phase

Constant hypersensitivity, where even low levels of exposure trigger severe symptoms. Affected individuals often become unable to live in a common technological environment.

Important Note

These symptoms are non-specific and may have other causes (stress, chronic illnesses, deficiencies).

An environment free of electromagnetic waves can help identify if exposure is the source (provocation/recovery test).

Biological tests such as heart rate variability (HRV), measurement of inflammatory markers, or hormonal analyses can confirm the disruptive effects of EMF.



CHAPTER 3

PROTECTION INSTRUCTIONS FOR USE

The effects of electromagnetic fields (EMFs) on human health have been debated for decades. Although some scientists remain cautious about their conclusions, several studies and reports have highlighted potentially harmful impacts of EMFs.

Understanding DAS/SAR

SAR (or DAS in French) is the "specific absorption rate". It measures the energy emitted by a device, such as a telephone, and absorbed by the human body.

This measure ensures that the waves emitted respect limits that are intended to be safe for health. Telephones must respect thresholds set by the authorities.

By checking the DAS/SAR of a device, you can choose less emitting products if you wish.



The limits of SAR: an insufficient standard to protect vulnerable organisms

SAR (Specific Absorption Rate), or SAR, is a measure of the energy emitted by a device and absorbed by the human body. This standard is used to ensure that the waves emitted by devices, such as telephones, respect thresholds deemed safe by the authorities.

However, this measure does not take into account concrete biological effects on the organism. SAR only reflects tissue heating, leaving aside potentially harmful non-thermal mechanisms, such as cellular disruption or oxidative stress.

Furthermore, the current standard is based on a standardized model of the average adult, without differentiation for children or people of small stature, while their absorption of waves is often greater due to their anatomy (thinner skull, more conductive tissues).



SAR Problems for Children and Small People

Higher absorption in children:

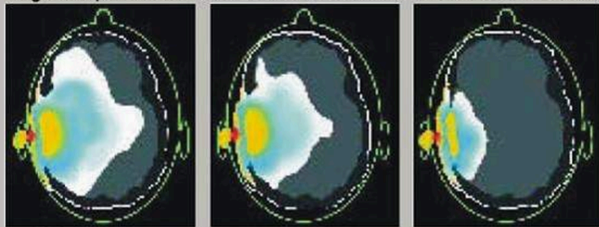
Children absorb more energy because their skulls are thinner and their tissues more permeable, allowing the waves to penetrate deeper. Yet the norm for them is the same as for a large adult.

No consideration of biological effects:

SAR only measures the heat released, but effects on cells, such as oxidative stress or DNA damage, are not assessed. Many studies suggest that these non-thermal effects can occur at levels well below the permitted SAR thresholds.

Gandhi O.P., Lazzi G., Furse C.M. (1996 vol.44, p1884-1897) : Absorption des rayonnements électromagnétiques dans la tête et le cou humain pour les téléphones mobiles de 835MHz /1900MHz

Degré de pénétration des Radiations du Portable dans le Cerveau



Enfant de 5 ans
Taux d'absorption: 4,49W/kg

Enfant de 10 ans
Taux d'absorption: 3,21W/kg

Adulte
Taux d'absorption: 2,93W/kg

Pour un taux d'absorption de 2,93 W/kg de puissance absorbée par un adulte, cette même puissance produira un Taux d'absorption de 3,21 W/kg pour un enfant de 10 ans et un Taux d'absorption de 4,49 W/kg pour un enfant de 5ans.

www.next-up.org

What to do?

Check the SAR: It is useful for choosing products that emit less energy, but it is not sufficient to guarantee biological safety.

Take extra precautions: favor landline calls and keep devices away from the body, especially for children.

IN CONCLUSION, DAS/SAR IS A PRACTICAL TOOL FOR ASSESSING EXPOSURE, BUT IT DOES NOT FULLY PROTECT AGAINST THE REAL BIOLOGICAL IMPACTS OF WAVES.

AUTHORITIES SHOULD INTEGRATE BIOLOGICAL DATA AND ADAPT STANDARDS FOR VULNERABLE POPULATIONS SUCH AS CHILDREN.



Why avoid blocking waves

Blocking microwaves can be worse for your health!

Microwave (MW) blocking devices may reduce SAR, but they amplify the harmful effects of ELF (low-frequency) waves, such as those used for communication or generated by device electronics. These seemingly harmless ELF's become more damaging to your cells in the absence of microwaves.

Additionally, even if you block some of the transmissions, your phone's internal electronics continue to produce electromagnetic disturbances that affect the human body. These emissions are not always blocked and remain harmful to your cells.

➔ Solution? Opt for devices that protect against both types of waves, by neutralizing their biological effects without simply “blocking”.

A device that claims to protect by blocking heat waves could actually make things worse*. Do your research and choose biologically tested solutions!

See study by Prof. M. BASTIDE and the research of Prof. Marc HENRY (Part 4)

3 criteria for choosing the right protection

Beware of Fake Solutions: The EMF Shielding Market

With growing concerns about electromagnetic waves, many EMF protection devices have appeared on the market. However, the reality is that the majority of these products are, at best, ineffective, and at worst, potentially more harmful.

Many are launched with exaggerated claims, without solid scientific basis, and promise levels of protection that are not verified.

1. Scientific Research and Transparency Many devices sold to block or neutralize EMFs have not been the subject of serious and independent studies.

They lack clinical data and rigorous testing to prove their real effectiveness. Often, these products are based on vague or unverifiable concepts, leaving consumers uncertain about their real impact on health.

Additionally, as seen previously, blocking thermal waves increases the harmfulness of ELF.(4C)

2. Proven effects on living things, beyond simple technical measures.

Effective protection must demonstrate its impact on living organisms, and not be limited solely to technical wave reduction data.



3. Protection across the entire electromagnetic spectrum

Truly effective protection must act on living organisms against all frequencies of the electromagnetic spectrum, from the lowest to the highest.



A Solution that Stands Out

CMOs

(Magnetic Compensation Oscillators)

Among these products, CMO (Compensatory Magnetic Oscillator) technology stands out with a unique approach and decades of scientific research behind it.

Unlike other devices, CMOs do not attempt to "block" electromagnetic waves - a method that often proves unrealistic - but rather aim to offset the potential biological effects of EMF by creating an oscillatory field compatible with the human body.

This technology has undergone extensive testing and research for its effectiveness and safety, providing a reliable solution for those looking to protect themselves from the effects of EMF without additional risks.



Criterion No. 1

15 Scientific Evidence (See Part 4C)

Criterion No. 2

**Proven positive biological effects on living things: animals, humans, etc.
(Part 4)**

Criterion No. 3

Because these shields focus on the biological, living organisms are protected across the entire electromagnetic spectrum.



- **CMO: How does it work?**

The CMO is a passive system, meaning that it will use the electromagnetic field of the environment to operate.

When the CMO is placed in the polluting electromagnetic field (telephone, wifi, relay antenna, etc.), by resonance effect the CMO will generate a micro-signal: this is the compensation signal.

BY ANALOGY (ANOTHER EXAMPLE OF A PASSIVE SYSTEM), WHEN A NEON TUBE IS PLACED UNDER A HIGH VOLTAGE LINE, THE TUBE WILL ENTER INTO RESONANCE ON THE FREQUENCY OF 50 HZ OF THE FIELD GENERATED BY THE POWER LINE, AND WILL LIGHT UP.



The compensation signal generated by the CMO does not constitute additional pollution. The intensity level (power) of the signal emitted by the CMO is of the same order of magnitude as the magnetic field emitted by the brain: 150 femtoTesla, i.e. extremely low.

This signal is designed to compensate for the biological effects of electromagnetic waves, by allowing the cells of the body to exchange in a normal and natural way, despite the presence of artificial electromagnetic radiation: it is a restoration of homeostasis.

Contrary to popular belief, the CMO will not absorb the waves or move them! The CMO will simply compensate for the biological effects caused by electromagnetic waves.



Conclusion

Take back control of your well-being

The effects of electromagnetic fields (EMF) are no longer a mere hypothesis, but a scientifically proven reality.

What we don't see can have a profound impact on our health and that of our loved ones.

Faced with this new situation, it is reassuring to know that there are proven solutions to protect yourself.

Comosystems CMOs, backed by more than two decades of scientific research, allow you to continue to enjoy the benefits of technology while preserving your biological balance. It is not a question of changing everything, but simply of better adapting to our modern environment.

Protecting your health means making an informed and proactive decision. If this e-book has piqued your curiosity and you would like to explore how CMOs can fit into your daily life, I am available to answer your questions and guide you in your approach.

You have the choice to take care of yourself, starting now.

 Contact us today to discover the CMOs adapted to your needs and move towards a more serene life, in harmony with your environment.

Your well-being is precious, make it a priority!



For employers an asset for your team and your business

Investing in the well-being of your employees is investing in your collective success. Here are the concrete benefits that CMOs bring to a professional environment:

 Improved Health: Reduced fatigue, sleep disturbances and headaches related to EMF.

 Increased productivity: Healthier employees are more focused, creative and efficient.

 Well-being at work: A proactive approach to taking care of your team, strengthening their commitment and satisfaction.

 Social Responsibility: Adopting proven solutions like CMOs shows that your company cares about the environment and its employees.

Take action today for a healthier future!

CHAPTER 4

• Sources / References / Information

Video YOU TUBE

- Professor Dominique Belpomme, cancer specialist,
- “Are electromagnetic waves dangerous for health?”

See: https://youtu.be/UWks_glon-M?si=L6aD_yx09FKf-21s

- Doctor Marc François Paya,
- “The effects of electromagnetic waves on aging”

See <https://youtu.be/Rh6pJrsYX8I?si=n5JBT-UKmuEmbDxr>

- Dr. Marc François PAYA & Maurice FILLION-ROBIN
- “Electromagnetic waves: Are you well protected?”

See: https://youtu.be/hvAe5PcFf2M?si=N_0IKxARB7lK_5P2

- Pr Marc HENRY (from 45 mins on the DAS)
- See https://youtu.be/h4MTlQWs4dY?si=UeQyhp7c0Q_kv9sy



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ANSES report (2018):

The French Agency for Food, Environmental and Occupational Health Safety has published a detailed report on electromagnetic hypersensitivity, highlighting the diversity of symptoms reported, such as headaches, sleep disorders, fatigue, and difficulty concentrating.

CONSIDERED

<https://www.anses.fr/fr/content/hypersensibilit%C3%A9-aux-ondes-%C3%A9lectromagn%C3%A9tiques-amplifier-l%E2%80%99effort-de-recherche-et-adapter-la>

Belpomme et al. (2015) :

This study identifies common biomarkers between EHS and multiple chemical sensitivity, suggesting a common pathophysiological basis. Symptoms include neurological disturbances and inflammatory responses.

<https://www.electrosensible.org/b2/index.php/sante/article-du-pr-belpomme-sur-les-biomarque-2015>

Potential biological mechanisms:

Pall, M. (2013) :

Dr. Martin Pall's work suggests that electromagnetic fields can activate voltage-gated calcium channels, leading to excessive calcium entry into cells, which could cause oxidative stress and inflammation.

https://www.robinstoits.org/Expose-du-Pr-Martin-Pall-comment-les-champs-electromagnetiques-peuvent-ils-impacter-notre-biologie-2015_a2298.html

15 SCIENTIFIC PROOFS FROM EXPERTS VALIDATING THE BENEFICIAL EFFECTS OF CMO®

FRANCE



- ✓ **Preuve 1 :** Pr M. Bastide – France ; mortalité embryonnaire – tel mobile- animal
- ✓ **Preuve 2 :** Pr M. Bastide-France ; mortalité embryonnaire- ordinateur –animal
- ✓ **Preuve 3 :** Dr L. Faivre-Bonhomme-France ; défenses immunitaires-ordinateur – animal
- ✓ **Preuve 4 :** Dr A. Fernandez-France ; anomalies cellulaires-tel mobile-animal
- ✓ **Preuve 5 :** Dr JL. Marande - France ; tests concentration/état de stress- ordinateur-humain
- ✓ **Preuve 6 :** Dr. Youbicier-Simo – France ; hormones de stress-tel mobile.
- ✓ **Preuve 7 :** Dr J. Youbicier-Simo- France ; variation calcium cellulaire- tel mobile – animal
- ✓ **Preuve 8 :** Dr J. Youbicier-Simo – France ; neurogénèse-tel mobile-animal

RUSSIE



- ✓ **Preuve 9 :** Dr V. Binh-Russie ; mode d'action biophysique CMO-modélisation mathématique/physique
- ✓ **Preuve 10 :** Pr Y. Grigoriev- Russie ; mortalité embryonnaire –tel mobile-animal
- ✓ **Preuve 11 :** Dr E.V. Stepanov– Russie ; sphère ORL/pneumo-tel mobile-humain

UK



- ✓ **Preuve 12 :** Pr T. Canavan-UK ; état de stress-ordinateur-humain
- ✓ **Preuve 13 :** Pr D. Clements-Croome-UK ; stress biologique et neuropsychique- ordinateur-humain

USA



- ✓ **Preuve 14 :** Pr. R. Goodman- USA ; ADN –(SRE – HSP 70)- tel mobile-animal

JAPON



- ✓ **Preuve 15 :** Pr M. Miyata-Japon ; atteintes oculaires-ordinateur- humain

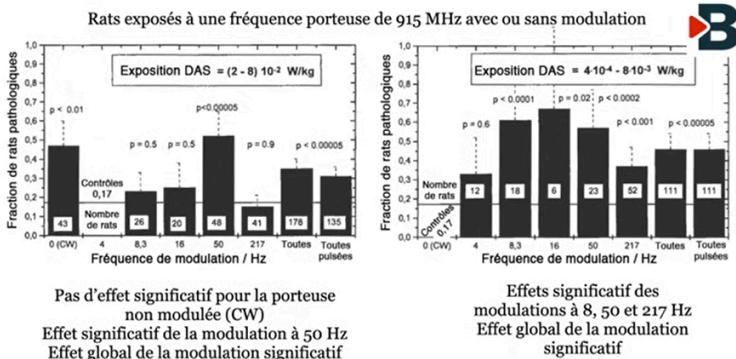
WHY NOT BLOCK THE WAVES?

TESTS OF FERTILIZED EGG MORTALITY (PR M BASTIDE)

<https://www.priartem.org/Deces-des-embryons-de-poulet.html>

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TESTS EXPOSURE RATS REDUCED DAS DEVICE (PR MARC HENRY)



B. R. R. Persson & al. & al., Wireless Networks, **3** (1997) 455

bescoob

FOLLOW THE FULL INTERVIEW:



INFORMATION

ROBIN DES TOITS

ASSOCIATION NATIONALE POUR LA SÉCURITÉ SANITAIRE DANS LES TECHNOLOGIES SANS FIL

www.robindestoits.org/

CEM-Vivant

Compatibilité ElectroMagnétique avec le Vivant

www.cem-vivant.com

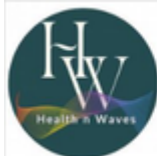


Pour Rassembler,
Informer et Agir sur les Risques
liés aux Technologies ElectroMagnétiques

www.priartem.org

**EHS
FRANCE**

<http://www.ehs-france.org>



Blog – Health_n_Waves

Un mal invisible qui nous entoure Vous vous sentez inexplicablement épuisé au travail ? Malgré une bonne hygiène de vie, votre

hnwaves.nc

www.hnwaves.com

LEXICON

	Anglais	Français	proposée	
5G	5th generation wireless systems	5G est la cinquième génération de standards pour la téléphonie mobile	5G	L'augmentation généralisée du débit (en nombre de données par seconde) et du taux de couverture (pourcentage de la surface de la Terre où le réseau est accessible) permet de submerger le monde de données.
ADHD	Attention-deficit hyperactivity disorder	Trouble du déficit de l'attention avec ou sans hyperactivité	TDAH	
CI	Confidence interval	Intervalle de confiance	IC	Notion utilisée en statistique
DNA	Deoxyribo-nucleic Acid	Acide désoxyribonucléique	ADN	
DECT	Digital Enhanced Cordless Telecommunications	téléphone sans-fil numérique amélioré	DECT	Utilisé pour les téléphones sans fil "grand public".
EHS	Electro Hypersensitive	Electrohypersensible	EHS	
EMF	Electro-magnetic Field	Champ électro-magnétique	CEM	Les Champs Electromagnétiques se propagent dans l'espace et se transmettent par couplage "rayonné" ou "conduit", suivant la fréquence, les caractéristiques de l'émetteur et du récepteur...
EMR	Electro-magnetic radiation	Radiation ou Rayonnement Electromagnétique		Même signification que Champ Electromagnétique.
ELF	Extremely low frequency	Onde électromagnétique à très basse fréquence	TBF	Les TBF incluent les courants/tensions du réseau 50Hz, mais aussi les Champs électriques et/ou magnétiques statiques ou à variation lente.
FCC	Federal Communications Commission	Agence américaine de régulation des communications	FCC	
FDA	Food and Drug Administration	Administration américaine des denrées alimentaires et des médicaments.	FDA	
GSM	Global System for Mobile Communications		GSM	Norme de téléphones portables prévue à l'origine pour transmettre la voix. Les générations successives 2G, 3G, 4G, 5G transmettent de plus en plus de données, sous forme numérisée.
HF	High Frequency	Haute Fréquence	HF	
PubMed Database	https://www.ncbi.nlm.nih.gov/pubmed/	PubMed	PubMed	Base de données officielle des USA en biologie en en médecine.
IARC	International Agency for Research on Cancer	Centre international de recherche sur le cancer	CIRC	

LEXICON

	Commission on Non Ionising Radiation Protection	internationale de protection contre les rayonnements ionisants		
MW	Micro Wave	Micro-onde		Très hautes fréquences, utilisées d'abord dans les Radars, puis, plus récemment dans les fours micro-ondes.
NASA	National Aeronautics and Space Administration	Administration nationale américaine de l'aéronautique et de l'espace	NASA	
NCI	National Cancer Institute	Institut fédéral américain de recherche contre le cancer	NCI	
OR	Odds ratio	Risque relatif rapproché	OR	Variable utilisée en statistique pour l'étude des risques épidémiologiques. https://fr.wikipedia.org/wiki/Odds_ratio
RF	Radio Frequency	Fréquence Radio	RF	
RF-EMW	Radio Frequency Electro-magnetic Wave	Onde électromagnétique à fréquence radio	EM-RF	Les Champs électromagnétiques se propageant dans l'espace (à la vitesse de la lumière), on emploie le terme d'Onde quand on utilise la propagation pour transmettre des données à distance.
SCENIHR	Scientific Committee on Emerging and Newly Identified Health Risks	Comité scientifique Risques sanitaires émergents et nouveaux	CSRSEN	Comité scientifique "indépendant" mis en place par la commission européenne. Dans le texte, on a gardé le sigle anglais SCENIHR.
VGCC	Voltage-gated Calcium Channel	canaux calciques voltage-dépendants	CCDV	Dans le texte, on a gardé le sigle anglais VGCC.
WHO	World Health Organization	Organisation mondiale de la santé	OMS	

