

“NINE DEGREES OF HEALTH HAZARD FOR ELECTROMAGNETIC RADIATION EMITTED IN MOBILE TELEPHONY”

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1. SCALE OF EVALUATION: NINE DEGREES OF POWER, AS DOSES, OF HAZARD.

This SCALE describes NINE DEGREES OF POWER, as DOSES, of long-term radiation on “living organisms”. At extreme radiation levels this biological aggression causes irreversible health alteration in the *genetic system and cell*. This practical SCALE evaluates the health hazard and enables to establish a long-term “precautionary principle” for mobile telephone radiation.

- **PRACTICAL UNIT OF CONTROL. Power Density: microW/cm².**

The fundamental “NATURAL Power fields” are basic to evaluate the health hazard as Dose. Health hazard as proportional to “Natural Radiation” is a fundamental and vital reference level. Documented by the WHO publication: **Fact Sheet N° 183 World Health Organisation**.

- “OVERALL HOUSEHOLD” 0.0001 microW/cm²
- “NATURAL SUN”, **0.001 microW/cm²**
- “AVERAGE BACKGROUND” 0.01 microW/cm²

It is included as Brain Dose reference, the Power level by “E.E.G. alteration”: **0.1 microW/cm²**. The Restrictive value in the permanent radiation for 168 hours/weekly, is: **1. microW/cm²**

ZERO DEGREE is the Broadband “NATURAL BACKGROUND”, for the frequencies of 300-3000 MHz: **0.000001 microW/cm²**.

Basic Feature Alive, “Aliveness”, is the BRAIN SIGNAL. Power level from Schumann Resonance that the human brain detects and uses with the intensity of around **0.0000001 microW/cm²**. This vital reference as established by Dr. Cherry’s findings stands out on account of its wisdom.

NINE DEGREES OF HEALTH HAZARDS expresses the proportion that exists between the high Power radiation Dose, emitted close to antenna: “THERMAL EPICENTRE” and “NEAR FIELD”, with reference to “NATURAL SUN”, and “AVERAGE BACKGROUND”.

2. REPRESENT IN GRAPHICS THE ENORMOUS HIGH POWER LEVEL EMISSIONS

Power Density is easy to measure. Power Density enables us to evaluate and represent in graphics, the enormous high Power level emissions. If the “OVERALL HOUSEHOLD” it is charted using a segment **one millimetre long**. Then, CENELEC level can also be charted.

To chart the Power level of “NATURAL SUN” radiation the height would be **One centimetre**. To chart the Power level of E.E.G. and Chromosome alteration the segment should be **One meter** high.

- To chart the Dose of CENELEC 50166-2 **Coefficient (5) “General public”**, the enormous segment’s height should be **450 meters**.
- To chart height the dose CENELEC: **“Workers”**, (Limited to **6 minutes**), but *exceeded by close range mobile telephone use*, the height should be **2,250 meters**.

3. SCALE OF HAZARD EVALUATION: “NINE DEGREES OF HEALTH HAZARDS”.

- POWER DENSITY: Expressed in **microW/cm2**.

<u>DEGREE</u>	<u>DESCRIPTION</u>	<u>microW/cm2.</u>
•	“ BRAIN SIGNAL ” <i>BASIC FEATURE “ALIVE”.</i>	0.000001
0.	NATURAL BACKGROUND	0.000001
1.	MINIMUM TRANSMISSION	0.00001
2.	“OVERALL HOUSEHOLD”	0.0001
3.	“ NATURAL SUN ”	0.001
4.	“AVERAGE BACKGROUND”	0.01
<u>5.</u>	<u>CHANGE E.E.G. AND CHROMOSOMES.</u>	<u>0.1</u>
6.	<u>Restrictive value. (Prof. Jose M^a Hernando)</u>	1,-
7.	Law former UdSSR.. (1984)	10,-
8.	NEAR FIELD.	100,-
9.	THERMAL EPICENTRE.	1,000,-

This SCALE enables us to evaluate the enormous high Power levels of artificial microwave radiation emitted by these new and appealing **non-shielded** emitters with no health protection. Microwaves are emitted without control by base stations and mobile phones.

It is expressed in the following card the Dose of “Increasing Rate” between the highest radiation’s Power of the mobile telephony taking like reference the level **DEGREE 3: NATURAL SUN**.

4. “INCREASING RATE”, WITH REFERENCE TO “NATURAL SUN”: DEGREE 3.

<u>DEGREE</u>	<u>DESCRIPTION</u>	<u>INCREASING RATE</u>
3.	“NATURAL SUN”	1
4.	“AVERAGE BACKGROUND”	10
<u>5.</u>	<u>CHANGE E.E.G. (Dr. L.V. Klitzing)</u>	<u>100</u>
6.	Restrictive value. (Prof. Jose M ^a Hernando)	1,000
7.	Law former UdSSR. (1984)	10,000
8.	NEAR FIELD.	100,000
9.	THERMAL EPICENTRE.	1,000,000

DEGREE 9: THERMAL EPICENTRE. It is ONE million times higher than DEGREE 3 “NATURAL SUN”. Ten millions times higher than DEGREE 2 “OVERALL HOUSEHOLD”

DEGREES 8 and 7 are **millions times higher**, as Dose, than the neuronal: BRAIN SIGNAL. These Power Doses are present in the level of radiation suffered in passive form, and at close range as microwave bombardment from base station, without protection day and night: 168 hours/ week.

5. SCALE “NINE DEGREES” AND DISTANCE: MOBILE PHONE AND BASE STATION

MOBILE PHONE POWER 1 W: TO VERIFY DISTANCE-HEALTH HAZARD DEGREE.
 BASE STATION POWER Input 40 W: TO VERIFY DISTANCE-HEALTH HAZARD DEGREE.

To inform over the **HEALTH HAZARD DEGREE**: To verify first the Distance to one mobile telephone and the Distance to a Base Station: To check the level of “Health Hazard” DEGREE.

Power increases 10 times at every DEGREE. As Precautionary principle it is prudent to value the increment of Power as Degree of Health Hazard in relation to the **Natural Sun: DEGREE 3**.

<u>DEGREE</u>	<u>DESCRIPTION</u>	<u>RADIATION</u> UNIT <u>microW/cm2</u>	MOBILE PHONE Power (1 W) Distance: metres	BASE STATION Power (40 W) Distance: metres
9	THERMAL EPICENTRE <i>Degree 9 is one million (1,000,000) times higher than Natural Degree 3: “Natural Sun”. About 2 minutes on a cell phone can open the Blood B. B. and allow prions into the brain.</i>	1000.	0.08 m.	3 m.
8	NEAR FIELD <i>Degree 8. Thousand (1.000) times higher than Degree 5: Change EEG and Chromosomes.</i>	100.	0.25 m.	9 m.
7	LAW FORMER UdSSR	10.	0.80 m.	30 m.
6	RESTRICTIVE VALUE <i>Degree 6 is fifty (50) times higher than 0.02 microW/cm2: As “Melatonin alteration”. Dr. Neil Cherry: Epidemiological evidence of children leukaemia by 2.4 microW/cm2.</i>	1.	2.50 m.	90 m.
5	ALTERATION CHROMOSOMES CHANGE E.E.G. <i>Health Hazard level documented by Dr. Henry Lai, Dr. Neil Cherry y Dr. G.J. Hyland.</i>	0.1	8.00 m.	300 m.
4	AVERAGE BACKGROUND <i>Power of 0.02 microW/cm2. Is Melatonin alteration during the night-time. Pineal gland.</i>	0.01	25.00 m.	900 m.
3	NATURAL SUN	0.001	80.00 m.	3,000 m.
2	OVERALL HOUSEHOLD	0.0001	250.00 m.	9,000 m.
1	MINIMUM TRANSMISSION	0.00001	800.00 m.	30,000 m.
0	NATURAL BACKGROUND	0.000001	2,500.00 m.	90,000 m.
•	BRAIN SIGNAL Basic feature “alive”. Resonance of Schumann by Dr. Neil Cherry. (New Zealand)	0.0000001		

SUMMARY PRACTICAL GUIDELINES TO PROTECT HUMAN HEALTH AGAINST ELECTROMAGNETIC RADIATION EMITTED IN MOBILE TELEPHONY.

Practical and verified information concerning the Power emitted in the mobile telephony, with respect to the Neuronal waves and the “Natural” radiation from the Sun.

Documented with scientific references from doctors of world-wide prestige it evaluates the health hazard with a simplified practical SCALE: NINE Degrees. This Scale allows an efficient understanding to everyone from University, Law, Town Council and people affected by it.

Focusing the attention. Two alterations:

To value the present Health Hazard and “Years delay”.

- **“Blood Brain Barrier alteration”.** Published in the former USSR (1972) over 25 ys. ago.
- **“Chromosome damage”.** Published in the EEUU (1995) by Dr. H. Lai and Dr. N. P. Singh

The long-term health alteration is known as “Microwaves Syndrome”, based on the radiation over people in Moscow, which led to the death of three successive U.S. Ambassadors: Lilienfeld study. This long-term radiation with low intensity "microwave bombardment", during years, limited to 40 hs. per week, has also caused cancer in 30 women and children 25 ys. ago.

Dr. Neil Cherry. (May 2000). *"Electromagnetic Radiation is damaging to Brains, Hearts, Embryos, Hormones and Cells. It is therefore a threat to Intelligent Hearty Life. Electromagnetic radiation resonantly interacts with bodies and cells, Interfering with cell-to-cell communication, cell growth and regulation, and is damaging the genetic basis of life."*

Dr. William Steward. *"Concerns have been expressed that the pulsed nature of the signals from mobile phones and masts may have an impact on brain function."* (1.56)

- **Health hazard refused to be underwritten by insurance companies: Allianz and LLoyd's.**

Who is responsible for informing authorities and people living close-by, about the adverse effects of the radiation emitted by base stations? Does a mobile phone user actually know about the long-term health hazard involved? Does it alter stress and our capacity to react? Is it a "non-effectual course" and "delaying tactics"? Are recommended researchers looking for “non-evidences” ?

Dr. George Carlo. (October 1999). *"I am especially concerned about what appear to be actions by a segment of the **industry to conscript** the FCC, the FDA and The World Health Organization with them in following a **non-effectual course** that will likely result in a regulatory and consumer backlash."*

- **Health hazard evaluation: “micronuclei diagnosis”.**

Dr. George Carlo, (October 1999). *"I am concerned that the wireless industry is missing a valuable opportunity by dealing with these public health concerns through politics, **creating illusions** that more research over the next several years helps consumers today, and **false claims that regulatory compliance means safety**. The better choice by the wireless industry would be to implement measured steps aimed at true consumer protection."*

- **Don't gamble with your health!**

Users must be aware of the “*potential for harm*” from microwave emitted by one mobile telephone into the brain. Hazard due to the high Power, **millions times greater** than the direct Natural Sun radiation.

Dr. George Carlo said (October 1999): *"Since I presented my findings, which they found surprising, they have failed to do anything. In that time there have been another 15 million users in the States and thousands more in Britain. From a consumer point of view the **delaying tactic** is not good but from a **business point of view its great**".*

Is it correct to study only “short-term” health alteration as stated by ICNIRP?. The Precautionary principle should suggest security measures to protect the immediate health hazard, caused especially in children, by opening the Blood Brain Barrier, DNA alteration and break chromosomes.

It is prudent to limit the investigation on cancer as recommended by World Health Organisation? The cancer takes years to appear. Such study can be “non-evident”: There are more contaminants.

Dr. Robert O. Becker (May 2000). *"I think that any time you have an extraneous energetic source of electromagnetic energy introduced into a body carries a potential for harm"*.

- **Focusing the attention:**

Radiation from base station. Emits high Power density as microwaves reaching 35 Km distance. Includes “high frequencies” and “pulsed low frequencies” of 217 Hz. It is important to value the health hazard from lower frequencies such as 8 Hz, 2 Hz and the interference on the Brain waves.

People living close by a base station are permanently suffering this radiation, without information whatever about this aggression of "microwave bombardment ", during 168 hs/ week. It causes evident non-thermal health alteration: Headache, insomnia, irritability and Deficit Attention. Night radiation causes Brain melatonin alteration, not experimented over people in Moscow.

Radiation from a mobile telephone. In the form of microwave sphere 1,000 m radius. User’s brain is in its centre, exposed to 10,000,000,000 times greater radiation than Neuronal waves. The microwave can open the Blood Brain Barrier in “2 minutes” and also break Chromosomes.

Dr. Neil Cherry (27 Oct. 2000) *"Lief Salford’s research on microwaves and the Blood Brain Barrier is probably very relevant. The BBB protects the brain from toxins and viruses. About 2 minutes on a cell phone can open the BBB and allow toxins, including prions, into the brain"*.

Alluring microwave transmitters capable of Breaking Chromosomes within 10 mts. are sold with no health "guarantees" at all. *War-game? Is a microwave transmitter a toy for children?*

Dr. Neil Cherry. *"A cell phone against the head exposes the premier organ of the human body to serious interference with its processes and serious damage to its tissues and cells"*.

Informed judgment and changes in the technology: Demanded long-term health guarantee.

Dr. George Carlo (October 1999). *"The most important measures of consumer protection are missing: complete and honest factual information to allow informed judgement by consumers about assumption of risk; the direct tracking and monitoring of what happens to consumers who use wireless phones; and, the monitoring of changes in the technology that could impact health"*.

**THE GUIDELINES DOES NOT PROTECT THE HEALTH OF ALL ALTERATIONS.
MECHANICAL AGITATION OF MOLECULES AND CELLS**

1. Dr. N. Hankin. “The Guideline do not protect the health of all the alterations”.

Letter of Norbert Hankin of EPA to EMR Network (Julio 2002). EPA is the Organism of Protection of Radiation of the “Environmental Protection Agency” into the U.S.A.

Dr. Norbert Hankin (July 2002). "The FCC's exposure guideline is considered protective of effects arising from a thermal mechanism but not from all possible mechanisms. Therefore, the generalization by many that the guidelines protect human beings from harm by any or all mechanisms is not justified."

2. “Mechanical” agitation of molecules and cells: Risk of “Irrational violence”.

Dr. Madeleine Bastide (Montpellier University). France

Shows that the low frequency of mobile phones generates malfunction in the system which controls stress. Concludes that this phenomenon may be responsible for the increase of violence observed in areas exposed to mobile phone and base station fields.

2.1. The molecular agitation by microwaves is “mechanical”. IEEE Spectrum.

Professor Kasevich (August 2002) “Electromagnetic theory and decades of experiments clearly indicate that the electromagnetic fields of radio and microwaves can also affect cells mechanically, without producing significant amounts of heat”.

“The relevant physics starts with the fact that all living things absorb and scatter electromagnetic waves. As they do so, they convert, on a molecular level, the electromagnetic fields of the waves into mechanical forces”.

“Our bodies are full of ions-in nerve endings, in cell nuclei, in muscles. In addition, the body's most common molecules, including water, have an irregular distribution of charge, so that they are influenced by an electric field (or a magnetic field if the ions or molecules are moving)”.

“Thus electromagnetic fields can physically move, reorient, or even alter molecules or ions-or their distributions-in the body”

“They can affect the rate of chemical reactions and the ability of molecules to pass through a membrane”.

2.2. To focus attention on the alteration of the "Blood-Brain Barrier".

Professor Kasevich (August 2002) “Possible links between molecular or cellular effects and human health are controversial, but a number of experts are focusing their attention on the blood-brain barrier”

*“This physiological complex, which includes as its **primary line of defense** the cellular lining of capillaries in the brain, shields the brain and central nervous system from foreign and harmful substances”.*

“The barrier also seems to control the concentrations of ions in cerebral tissue. Radiation-caused movements or alterations of ions and molecules can be particularly vigorous when they are caused by electromagnetic pulses that are sharp and intense”.

2.3. The “Blood-Brain Barrier” and "tiny gaps between the cells".

Professor Leszczynski (July 2002) “The study found that exposure caused increased activity in a protein called hsp27 linked to the functioning of the blood-brain barrier.

“[Increased protein activity] might cause cells to shrink-not the blood vessels but the cells themselves-and then tiny gaps come between those cells through which some molecules could pass.”

“The blood-brain barrier has been shown to be affected by radiation in animal studies”

*“There is a lot of uncertainty about whether this happens in humans. We have shown some biological effects. If it did happen it could lead to disturbances, such as **headaches, feeling tired or problems with sleeping”.***

*“A study by a Swedish research group even suggested it could lead to **Alzheimer's disease.**” He also stated that a study by French scientists found similar results in rats.*

3. Male animals become violent: “Domestic dogs attacks” in New Zealand.

Important message from Penny Hargreaves who lives near the Ouruhia radio towers in New Zealand. For more about the Ouruhia towers see:

“Male Animals became Violent at Penny Hargreaves Ouruhia farm after the 2nd FM was added to the existing 2 AM on the neighbouring radio tower”.

The Federal Communications Commission reports that the first thing affected by EMR exposure are the eyes and the testicles.

Some time ago I had a conversation with a council employee in Sydney about the possibility of some domestic dog attacks being related to transmission towers. The idea was that since dogs have a higher range of hearing they may be prone to "microwave hearing".

*“If so, this may be a stressor on the dogs, as it certainly is with **humans who are affected by it”.***

There was a suggestion of plotting locations of the attacks with mobile phone towers on the council map but nothing was followed up on. The reported observations by Penny Hargreaves suggest that it should have been carried further.

Male irritability:- when the Ouruhia residents lawyer examined the medical reports for Dr. Hockings study of 40 people living in the area she commented on the quantity of men going to their doctor with symptoms of extreme irritability since the 2nd FM was added.

“Grumpy males may be short of Testosterone”.