



 Deutsche Version

- Home ▸
- Current News ▸
- The institute ▸
- Update-Seminars ▸
- Research ▸
- Protection Concepts ▸
- Consulting Service ▸
- Measurements Lab ▸

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## "At present, the electro smog created by people is a significant threat to public health"

This statement did not come from a mobile telephone activist's lips, it came from an official document from the European Parliament dated March 2001. Through the recognized biophysicist Dr. Gerard Hyland of the University of Warwick (UK), the general direction of science identifies the health risks that modern mobile telecommunications presents and names specific requirements for protecting the population.

The legal limit (SAR value) is unsuitable for assessing the biological effectiveness of protective measures. This limit, also valid in Germany, takes only the heating of tissue by mobile radio waves (thermal effects) into account. It disregards interactions with the human organism, the physical functions of which are based on complex electromagnetic mechanisms.

The report, formulated as a recommendation to the European Commission, demands immediate research and development on suitable means of protection against non-thermal effects. That means protecting the population against health consequences that, as is well known, are not caused by the heating of tissue. Furthermore, it insists that the effectiveness of protection methods and guidelines be finally tested with living people, and no longer on dead physical models, which in no way represent the biological interactive reactions of a living person.

Today, we have come to a stage of expansion in mobile telephone technology that no-one can run from any longer. The rapid pace at which new radio technologies at new frequencies are being brought out onto the market every day in all areas of life is set by what is technically feasible - not by what is healthy. Because the human body literally has "nowhere to hide" from this electromagnetic pollution, it now concerns absolutely everybody, independent of age, sex or income.

Knowledge of non-thermal effects and sensible protection against them are now the central health challenges of the 21<sup>st</sup> century. [top](#)

### Current News

[Yearbook of Austrian and European Environmental Law 2005 appears with contribution from Dr. Medinger](#)

[IIREC receives recognition as technical bureau / engineering consultants on January 1 2005 and changes its name to IIREC Dr. Medinger OEG](#)

[Dr. Medinger is guest speaker on February 3 2005 at 19:00 at the "Haus der Baubiologie" in Graz](#)

### Quicklinks:

- [To Measure Partner Portal](#)
- [TV - Interview: Dr. Medinger](#)
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Today:  
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## An entire discipline has been created to protect against electronic and mobile telecommunications radiation

The official scientific demonstration of the effects of mobile telecommunications technologies on people and the facts used on a daily basis diverged far from each other a long time ago. An entire discipline is now focused on shielding and suppressing radio interference in buildings, apartments, domiciles and workplaces.

Among the population and in ever more companies, the understanding of the effects of electronic and mobile telecommunications radiation on health is noticeably increasing. Large corporate groups are decreasing their own limits due to disturbances to employees; specialized congresses put on by renowned organic architects are concentrating on the matter as hard as manufacturers of building materials or prefabricated houses are.

The new field is forming new job descriptions officially recognized by the employment office, domain registers are holding the first entries under the headword "electro smog", more and more often, electricians are already installing technical components such as mains disconnection relays into new buildings for cutting off the electrical AC voltage and in the Internet, information sites on this subject are recording over 1 million hits a month.

The discipline is conducting its own research and is constantly enhancing its means of protection. Local media are reporting more strongly on electro smog's impact on health. The *Süddeutsche Zeitung* reported on January 28, 2004 that the world's two largest insurance brokers, Marsh and Aon, as well as Allianz have excluded the risk of electro smog produced by mobile phones and mobile radio devices from their policies.

All of these developments, which have now become an economic factor that must be taken seriously, do not officially exist for predominant scientists or for legislators. It is almost a schizophrenic situation.

While the discipline has so far focused primarily on reducing the energy (i.e. the SAR value), in recent times, the demands made in the European Parliament's recommendation letter are being tackled with ever more force: the development of means of protection against non-thermal effects. They are based on quantum physics, which is still only rarely applied, the most renowned application being superconductors.

Behind it is the matured realization that simply reducing the energy (the legal SAR value) does not provide biological protection. Among other things, non-thermal effects come from the interplay of frequencies, the significance of the magnetic fields surrounding us for our bodies and

the physical properties of waves that are, as a rule, unknown to classically educated physicists and engineers. Because we have not technically used these technical properties so far, they are not included in the syllabuses of universities. 📄 [top](#)

### **Dutch state UMTS study shows: tinnitus, headaches and nausea at one five-thousandth of the legal limit**

Many elaborate studies have recently proven these non-thermal effects beyond a doubt - yet, they are hardly known to the public. How severely these effects arise even at a practically non-existent energy level was shown last year in the UMTS study conducted in Holland. The three ministries for economics, health and telecommunications ordered this comprehensive double-blind study from the recognized TNO Institute in response to great misgivings among the Dutch population.

Randomized, placebo-controlled (i.e. including ineffective "placebos") double-blind studies are the most scientifically recognized form of testing effects. In these studies, neither the investigators nor the test subjects know in each case whether they are actually being subject to radiation or not.

In the Dutch study, there were additionally two test groups of 36 people each studied separately according to people who considered themselves electro-sensitive and those without such symptoms. As dictated by the legal limit, absolutely no reaction should arise in people at one five-thousandth of the limit value (0.08 Milliwatts/kg body tissues), since warming of the skin is no longer measurable.

In fact, at this low dosage, significant cases of tinnitus (ear squealing), headaches and nausea appeared in both test groups. According to the doctrine of the official legal limit and the philosophy that much energy - i.e. much skin heating - causes much damage, and therefore low energy - i.e. little or no skin heating - causes little or no damage, these results cannot be explained. 📄 [top](#)

### **EU REFLEX Study: with decreasing SAR values, increasing DNA double-strand disruption**

Also worth special mention is the REFLEX double-blind study sponsored by the EU, Switzerland, Finland and the VERUM Foundation and conducted by 12 research groups in 7 European countries. It was presented in August 2003, after 43 months duration, and also shows the inapplicability of the legal SAR limit. The behavior of DNA under irradiation of typical frequencies in use, such as those used by the E-net and cordless telephones, was examined.

The DNA stores our inherited traits in two parallel strands. Every time a cell divides, the strands separate, complete themselves and thus duplicate. This process must occur with the least number of errors as possible for no genetic error to occur. Everyday radiation doses within the legal limit lead to a strong increase in multiple breaks in both DNA strands.

An important result from the study: as the energy decreases - that is, at smaller and smaller SAR values - the genetic errors increased within a certain range - and did not decrease as expected! Low SAR values lead to increased errors in the genetic code and to the formation of additional cell nuclei that in fact should not exist at all. Instead of two nuclei, three or more cell nuclei suddenly appeared. The results are genetic errors in cell division with the all too familiar consequences.

According to the theory behind the official legal limit, these results should not exist at all 📄 [top](#)

### **What physical parameters must effective means of protection influence?**

The results show us that biologically effective means of protection may not be limited to simply reducing the energy. They must return those parameters, to which the human being is reacting incorrectly due to the technical change in the electromagnetic environment, back into the natural range.

The most important parameters are the electromagnetic impulse of a wave and the form of the magnetic field exerted around us. From the magnetic field, the body's brain receives uninterrupted control signals, upon which it interprets and, for example, regulates its metabolism. It is well known, for example, that the DNA itself receives and sends magnetic signals from and to the environment.

Only last year could it be proven, in the world-renowned Caltech University (California Institute of Technology), that our brain is a high-power magnetic receiver. Alone every gram of brain membrane holds 100 million magnetite crystals. These crystals are around one million times

more magnetic than any other biological material. Technologically produced electrical and mobile telecommunications radiation disturbs the natural form of the magnetic field surrounding us and the body receives incorrect signals right down to the cell level.

The properties of the electromagnetic pulse have been known ever since the discovery of the physical basics by James Clerk Maxwell. However, because we do not use this parameter in technology, only very few engineers and physicists are trained in this discipline. With technologically produced waves, as a rule, the electromagnetic pulse has such a nature that impairs important electromagnetic processes in our body - and can in fact turn them right around.

Only last year did the two Americans Peter Agre and Roderick McKinnon receive the Nobel prize for chemistry, because they could demonstrate for the first time the mechanisms with which water and ions can penetrate into a cell. Undisturbed transport is only possible if the electromagnetic impulse is in the right condition. [top](#)

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### **Conclusion of the scientific insights: only beyond the SAR value does the actual protection against electronic and mobile telecommunications radiation begin!**

**State and public studies themselves demonstrate the biological ineffectiveness of the legal limit and the SAR value. Sensible biological protection against the disturbing effects of electromagnetic fields and waves can only be provided on the basis of quantum physical means of protection. This was already recommended in an official document from the European Parliament back in 2001.**

**IIREC is working together with leading scientists on an international level and is providing its customers with the first suitable methods for measuring non-thermal effects beyond the SAR value.**

**Therefore, there is no longer any excuse to downgrade new protective technology as humbug simply because the physical and biological basics are unfamiliar. Much more importantly, we must now all ask ourselves what contribution we can make so that the current adult and growing generations - our children - can use modern technology, untroubled and without suffering long-term health impairment.**

[top](#)