# Personality changes caused by mobile telecommunications

By Dr. med. Christine Aschermann

I would like to draw attention to an often ignored problem with mobile telecommunications: the effects on the brain. Definition: According to personal observations made in my practice, there has been an increased occurrence of cognitive and psychological disorders with exposure to telecommunications (see my article in UMG Umwelt-Medizin-Gesellschaft [UMG 2004, 1]).

These include brain-malfunctions, so-called organic brain disturbances or organic psycho-syndromes. The psycho-syndrome may occur either acutely, or chronically, as a result of either direct brain damage [in the case of brain- trauma or inflammation] or indirect brain damage [e.g. hepatic coma]. They may be either reversible or irreversible.

Personality and character changes may develop gradually some years after incurring brain damage. People with personality changes, e.g. motorcyclists following brain-trauma or war veterans with brain-damage, often have problems with social interactions because of their non-conformity. In criminals, anatomical changes have been found, especially in the frontal lobe area of the brain that is responsible for impulse control and moral behaviour.

## Early and later occurring organic brain symptoms

The symptoms that were initially observed include: short-term memory disorders, a new very severe form of concentration disorder where people are totally unable to concentrate, amnesic aphasia (difficulty finding words), parapraxia (carrying out inappropriate actions).

The accompanying irritability and mood swings are often wrongly considered to be psychogenic. Further symptoms such as physical weakness, sleep disturbances, lack of motivation or agitation are not so easy to assess.

Now, after more than ten years have elapsed since mobile phones have come into common use, I increasingly see people with personality changes in my practice and surroundings. They display an absence of flexibility extending as far as obstinacy, lack of judgement and diminished self-criticism, fluctuating or distinctly reduced effectiveness, fussiness, frequent inability to control emotions and impulses or in the opposite direction insensitivity, together with an intensification of character traits. Subtle mood swings, the sense of ethical values can be lost. These symptoms are known from the processes of brain ageing (inflammatory changes in the small cerebral vessels, known as cerebrosclerosis).

## Findings from studies and practice

Rüdiger Maier (2001) proved experimentally that a short-term radiation exposure from mobile telephones leads to discrimination difficulties. (Discrimination as basis for cognitive processes).

Huber et al. (2002): Pulsed telecommunications alter the amplitude of the alphawaves in the EEG, alter the onset of the deep-sleep phases and, presumably, have an effect on the inner clock.

Landgrebe et al. (2007): In studies using transcranial magnetic stimulation (TMS), reduced intracortical facilitation was found in self-assessed electrosensitive people. Facilitation processes play a fundamental role in memory and learning. Regrettably, long-term studies of years' duration are not yet available.

Occasionally, brain abnormalities occurring in younger people were reported to me that had been proven using computer tomogram or M.R.I.

In the results of a MRI brain scan carried out on a 43 year old female patient from my own medical practice, it was reported that there was signal enhancement both subcortically as well as over both cerebral hemispheres of the brain.

There was a massive, occupational pre-exposure to chemicals as well as two time periods that are temporally associated with DECT-telephone usage. The patient presented with severe concentration disorders and was agitated.

The M.R.I. findings for the patient's brain remind one of research carried out by Dr. Leif Salford and his images of rats' brains following their exposure to mobile phones. Dr. Leif Salford describes neuronal damage/destruction and the leakage of pathological proteins [across the blood-brain barrier] into the brain after only two hours exposure to the mobile phone emissions. Incidentally, I must briefly mention the fact that these brain changes represent a catastrophe for the people affected and our social system.

## Recent observations in society

Since the year 2009, (after more than 10 years since mobile phones came into common use and 2.5 years with digital television), I mainly see patients with fatigue syndromes in my practice, regardless of which symptoms, medical conditions and psychosocial problem they consult me about. They often do not initially mention their exhaustion at the beginning of the consultation and it is only when I specifically ask them about this that I learn about their chronic exhaustion.

Teachers and employers complain about concentration disorders, reduced learning capacity, increased mistakes, e.g. mathematics students who are unable

to do calculations without a calculator and who are exhausted after an hour. Not infrequently, the authorities allow mobile phone transmitters to be placed on the roof. I know a county district office that has telecommunications antennae all over the roof. What effect will this have on the quality of the work done there, apart from the certainty that the employees will have increased sickness. Then, the increase in aggressive behaviour must be mentioned, in an extreme form, the rampages that were perpetrated in recent years by young people in Japan, Germany, Finland, USA, and recently by a taxi driver in England. A survey found that the young people who run amok had previously attracted attention through their excessive playing of games, the so-called 'killers games. The games are very realistic, the firearm appears to be held in the player's hand. There can be no doubt about the brutalising effect of such games.

What has not been considered so far in the accounts: the influence of microwaves. The computer monitor in operating mode is already transmitting high frequency radiation. There is also the radiation emitted from W-LAN, Bluetooth, wireless operated mouse and other wireless devices that are popular with young people. A DECT cordless phone and mobile telephone are certainly also within easy reach for use when multi-tasking. Perhaps, another telecommunications transmitter - or radio/ television transmitter is located nearby. The radiation emitted by all these appliances interferes with the normal brain processes, predominantly the low frequency modulation.

We know from the research studies carried out since the 1950's by the Russian and U.S. American Military that specific moods can be evoked and manipulated. Thus, depressive states, fear, mania, pains, lack of motivation, hallucinations are possible responses, depending on the frequency, wave-forms and other characteristics of the radiation.

The more aggressive atmosphere in the workplace – it is alleged that the stress has increased as a result of increased workload following staff reduction, bullying etc. However, I personally consider telecommunications to be one of the greatest stressors. (In this case the evidence on the pituitary-adrenal cortex axis is sufficient, failure of the body's own regulatory mechanisms with energy deficits).

The increase of suicides: Last year, it was reported in the newspapers that that a great number of 'France Telecom' employees had committed suicide. Recently, the electronics firm 'Foxconn' in China was affected by 10 suicides during the first 5 months of the year. Following the introduction of TETRA into the Israeli army, a series of young conscripted soldiers self-harmed. At the Siemens office [a multi-storey house] in Munich, where the DECT-Telephone was developed years ago, there were reports of people committing suicide by falling from a height.

A new type of behavioural disorder has been found in Japanese young people,

the so-called Hikikomori. Japan is presently the most heavily electronically equipped country in the world. It is almost always the young men that are still living with their parents who are affected, estimated 1 % of the population, who shut themselves off from family and friends, retreat into their room, spend the night watching television, listening to music or using the computer, sleeping during the day (Reversal of the normal Sleep-Awake-Rhythm). The parents are more or less powerless to do anything.
Is it a new form of addiction? In the meantime, social-educational aid programmes are running that are similar to those used for helping addicts.

Paul Doyon, Professor of Psychology and Linguistics in Japan, depicts how the strict social moral code, which places the “Saving of Face” at its centre, is broken. Whilst previously family ties and respect for the parents were considered important, today there is extreme neglect of children by their parents, as well as the physical abuse of parents by their children, extending as far as the killing of the parents.

A comparison with Germany: in recent years there were several press reports about murdered children found in the deep freezer, or, increasingly, the abuse and neglect of children that also resulted in death. What are the parents lacking that causes them to behave like this? Instinct? Empathy?

**Importance for the future of humanity**

The brain is the organ that distinguishes the human race. It enables its undisputed achievements in science, culture, philosophy and religion. The question must be permitted: What will happen to the human race, if the capacity for such achievements is lost as a result of external influences - the constant radiation? I am a doctor who has noticed the above-mentioned disorders early and I am convinced of the link between these disorders and electromagnetic radiation. Furthermore, how can we protect ourselves now, today, before it is too late?

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*Translation by Margaret E. White in co-operation with the author.*