

Principles of magnetotherapy

Since the beginning of times the planet Earth is under the influence of electric and magnetic fields, without which life would not be possible. A single molecule would not enter a cell without the existence of magnetic field. The magnetic field makes the penetration, exchange of vital substances, and the exclusion of ballast in a live cell possible.

This fact has been known to a man for centuries. The best prove was given by the cosmic research. After first excursions into space the astronauts had serious health problems. They used to call it a "Space Illness". Shortly afterwards the research confirmed that the reason behind it all, is a lack of Earth magnetic field inside the astronauts' cabin. NASA solved the problem by installing generators producing an artificial magnetic field.

Earth's field lines of force have a north-south direction. Presently, the Earth's magnetism is about 0,047 mT (Militesla). This amount equals 0,47 G (Gauss). Its value drops from the pole to the equator and pulses with a day and night rhythm. **In the last 500 hundred years the intensity of the Earth's magnetic pole decreased about 50%. It is very alarming considering that it keeps decreasing! Illnesses evoked by such decrease are called "The Lack of Magnetic Field Syndrome".**

The electricity entering a leader or an inductor produces an artificial magnetic pole. Magnetic field's annular lines of force originate around the leader. If pulsed electric current flows, pulsed magnetic pole launches around the leader. On the contrary, if a changing magnetic field influences the leader, but also a life nerve, muscle or other cell, we witness the flow of the electric current. This phenomenon is called an electromagnetic induction and it plays a significant role when explaining the influence of magnetic pole on live organism.

Magnetotherapy is a physical therapy consisting of the artificial magnetic field's activity of certain parameters influencing human organism. There is a large area of a low frequency pulsing magnetic field generated during this therapy. Electric currents invoked by the pulsing magnetic field slightly enhance the temperature of an exposed tissue about 0,5 up to 1 degree Celsius.

Rejuvenating and healing effects of the magnetic field are known to a man for more then 2000 years. A primitive magnetotherapy was used already hundreds of years ago on European as well as African continents. Our ancestors knew about the effects of magnetic field produced by a single natural magnet – a mineral loadstone (Fe_3O_4). They were aware of the portative force on iron objects and predicated it a divine origin. With the aim of advanced healing and reduction of pain, pieces of loadstone were put on wounds. Later on, crushed loadstone was found to be stirred into honey or wine and used as a potion of eternal youth.

The level of today's modern knowledge allows effective usage of the pulsing low frequency magnetic field in medical, spa as well as home therapy. It positively stimulates biochemical and biophysical reactions in cells and between cells. It also improves the membrane patency. As a result, increased measurers of oxygen and other important substances supply the cells, i.e. improve substance exchange.

The growth and function of cells are directed by electromagnetic cycles. The disturbance of such information is a source of a major damage of cells - birth of an illness. It can be caused by the lack of magnetic energy. It is possible to balance disturbed cell's control system by an inductive influence of a magnetic field. **Harmful side effects while using magnetotherapy are absolutely out of the question.**

Magnetism is a source of live energy, which drives all the vitally important exchanges in our body. The function of a cell membrane, and the intensity of a cell oscillation decrease with the significance of the illness. The incoming vibrations assist and regenerate the sick cell and help to bring it back to its correct frequency. Under no circumstances does this method burden the body because it is a biologically natural method. Magnetic energy is an ultimate energy and it is founded in each molecule, each cell. A wonderful quality of nature and its energy, by far, is simplicity. Lets hope that human being will gradually figure out its plentitude and profundity. Summarizing all this information, we can generally say that pulsing magnetic signals positively affect the reproduction of the electromagnetic field and thus awake the natural regeneration of a damage cell.

Magnetotherapy, if correctly applied, opens damaged ways to auto regulation and auto reparation of the organism because human body is a genius mechanism and any illness means a disturbance. Except from a local implementation on tissues, magnetic field activates a whole range of defensive mechanisms, such as immune system, increases effect of bacteriophage, affects the vegetation system etc.

In scientific circles, magnetotherapy is considered to be one of the most secure and effective physical curative methods, and it is often called “The Curative Method of The Twenty First Century”. The positive influence of magnetotherapy is sometimes difficult to explain, even though, no doubt, it is beneficial for the patients. Therefore, restrict and sensible application of magnetotherapy, within the frame of a medical plan, is fully advisable even during the pharmacology burst and new gentle surgery methods.

This method is, thanks to the line of products Renaissance; available to general public, hence everybody has an opportunity to utilize the many years of experience with pulsing magnetotherapy acquired in a clinical practice.

Regeneration, orthopedic, magnetotherapeutic instruments from the line of products Renaissance create a specific, low frequency pulsing magnetic field, which has direct regeneration effects on a human being. As a result, it positively influences the psyche and physical well being of a person. It is important to emphasize that magnetotherapy is, contrary to the usage of medication, non-addictive and highly safe physical method. It is not used only to cure the result, which is an illness, but it is also used to prevent it.

History

By the beginning of nineteen eighties specialists draw from the fact that 80% of the population visit a physician with problems regarding their motoric apparatus. The rest of the 20% have problems with the eyes, ORL, heart, lungs and internal troubles. Consequently, the scientists were looking for a cheaper alternative method without chemistry and pharmaceuticals. It should have been implemented especially to the group of patients suffering from failure of motoric apparatus where the treatment was financially overwhelming. This research was given to the former Czechoslovakia.

During those times the country could offer outstanding doctors and costly effective research for acceptable price on an exceptional level. In charge of the project was MUDr. Jiří Jeřábek together with a team of 80 doctors. The research was carried out in Jánské Lázně, Lázně Bohdaneč, Františkovy Lázně and on clinics in Prague, Brno, Ostrava, Hradec Králové and also in Slovakia.

Magnetotherapy in former Czechoslovakia was used from nineteen fifties. Based on the initiative from Czech doctors during the eighties, the country embarks on the manufacturing of the first instruments for magnetotherapy treatment. Further research is linked together with a name of the head physician MUDr. Jiří Chvojka, CSs. During 1986 – 1991 he acted as an expert and a consultant for the Ministry of Health concerning magnetotherapy. With the implementation of his already ample experience with pulsing magnetotherapy, he coordinated the clinically supervised research at a few chosen work sites. **Based on the successful results of this study, pulsing magnetotherapy was placed among official physiotherapeutic medical methods.**

Hundreds of satisfied users confirm positive outcomes of the treatment and magnetotherapy **is undeniably a contribution to the patients without any side effects.**

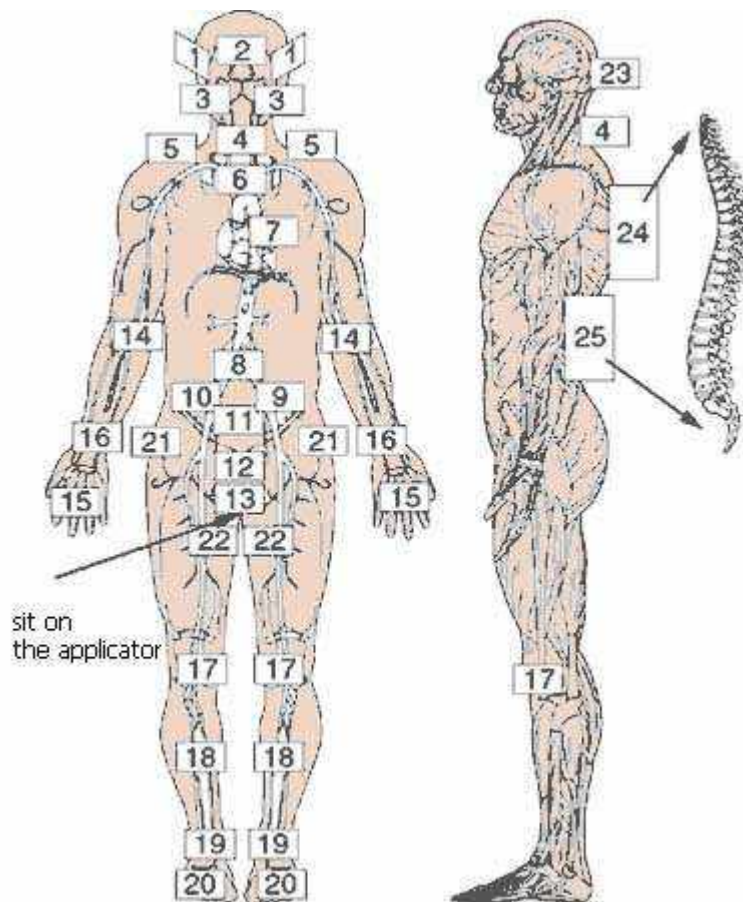
Possibility of usage

Main results:

- Speedy regeneration of cells
- Anti-inflammatory activity
- Alleviation of pain (analgetic effect)
- Acceleration of healing process
- The enlargement of blood vessels (vasodilatation)
- Copious blood supply to the applied area
- Stabilization of the blood pressure
- Strengthening and the improvement of the immune system
- Stimulation of growth and development of a bone tissue
- Decreased consumption of pharmaceuticals
- Reduction of joint and muscle pain
- Relaxation effect on muscles
- Reduction of muscle strains
- Elimination of swelling

This common magnetotherapy findings can be applied on an individual illness. On the drawing of the human body there are numbered spots, which indicate an area suitable for the placement of the magnetic field applicator during an actual illness.

Application points for usage of magnetotherapy



(1)

- Inflammation of the inner and middle ear (left or right, or both) in the beginning stage, meaning without pus
- Tinnitus (a ringing or booming sensation in one or both ears, 50% causation in the ear), backed up with medication
- Soreness of the gnathic joint
- Parkinson's disease, backed up with medication
- Migraines

(2)

- Frontal sinuses infection (in the beginning stage)
- Common cold, catarrh or chronic rhinitis

- Regeneration of the retina
- Night Blindness, backed up by taking vitamin A
- Perforation of the cornea (accidents, surgeries), application while healing

(3)

- Teeth soreness, or inflammation due to infection
- Parodontosis
- Pain after extraction of a tooth, (however not immediately after the extraction!)
- Soreness of the trigeminal nerve, as a supportive treatment

(4)

- Soreness during the blockade of cervical vertebrae
- Head pain
- Carpal Tunnel Syndrome
- Disorders of hand blood perfusion (pins and needles)
- Common cold
- Hoarse voice
- Inflammation of esophagus

(5)

- Soar, frozen shoulders
- Arthralgia or arthritis of shoulder joints (soreness of joints)

(6)

- Asthma, as a supportive treatment
- Bronchitis, as a supportive treatment
- When high blood pressure
- Hiccup

(7)

- Regeneration of the heart muscle after the stroke
- After bypass surgery
- Narrowing of arteries by spasm or disease (ischemia, heart disease)
- Tachyarrhythmia (rapid irregular heartbeat)

(8)

- Infection, convulsion and a stomach hyperacidity
- Chronic ulcer stomach or duodenum disease, (not when bleeding simultaneously!)

(9)

- Pancreas infection – (chronic) pancreatitis
- Diabetes (apply the applicator on the left side in the back), vascular diabetic complications

(10)

- Liver regeneration

(11)

- Infertility in women caused by infected fallopian tubes
- Constipation, poor bowels movement

(12)

- Urinary bladder infection, particularly in women, as a supportive treatment
- Prostatitis in men
- No. 12 and no. 25 enuresis in children (bed-wetting)

(13)

- Prostatitis
- Sexual dysfunction in men
- Sexual flabbiness
- Hemorrhoids, if not bleeding!

(14)

- Acute and chronic tennis elbow, elbow soreness (arthritis)

(15)

- Joint infections in realm of healing
- Rheumatic problems
- Wrist - polyarthritis progression

(16)

- No. 16 and no. 4 Carpal Tunnel Syndrome

(17)

- From soreness up to arthritis of a knee joint
- Poor blood circulation of lower limbs in patients with diabetes (diabetic leg)

(18)

- Poor blood circulation of lower limbs in patients with diabetes (diabetic leg)
- Osteoporosis of tibial bones
- Chronic shank ulcers (not while bleeding), as a supportive treatment
- Infection of bone marrow
- (osteomyelitis), boost by antibiotics!

(19)

- Metatarsus and ankle pains
- Swelling of ankles, but do not use during festering inflammation of ligaments!
- Excellent in post-traumatic stage
- Poor blood circulation in lower limbs in patients with diabetes (diabetic leg)

(20)

- Rheumatism
- Gout, painful spur
- Poor blood circulation of lower limbs in patients with diabetes (diabetic leg)

(21)

- Pain when arthritis of hip joints
- Osteoporosis of the hip bone roots

(22)

- Poor blood circulation of lower limbs in patients with diabetes (diabetic leg)

(23)

- Migraines
- Parkinson's disease, backed up with medication
- Spasms, not epilepsy!
- Phantom pains of missing limbs

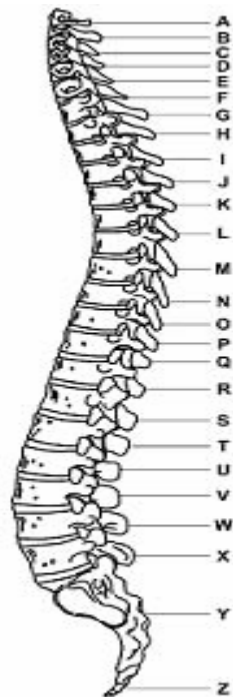
(24)

- Spine regeneration of the neck and thorax
- Carpal Tunnel Syndrome
- Partial deafness
- Degeneration of spinal cord of a different origin
- Growth of spinal column
- Ankylosing spondylitis (Bechterev's disease)
- Osteoporosis of the spine
- Phantom pains of missing limbs

(25)

- Sciatica, pains in a lower back
- Kidney pains at the beginning of kidney stones (improves their discharge, sufficient amount of fluids)
- Night enuresis in children (does not affect enuresis caused by psyche)
- Osteoporosis of the spine

Application areas in the back area



Following is a summary of tissues, organs and glands, which are supplied by vital energy from individual spinal nerves.

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Area supplied by nerves.

Possible results from the impact of the nerves

	All tissues, organs and glands are supplied by vital energy from individual spinal nerves.	A partial list of states of being and symptoms, which may accrue from lack of nerves.
A	Blood supply of head, thalamus gland, scalp, inner and middle ear, sympathetic	Head pains, nervousness, sleeplessness, common cold, high blood pressure, migraines, chronic tiredness, dizziness
B	Eyes, ocular nerves, auricular nerve, sinuses, chin, tongue	Problems with sinuses, allergies, problems with the eyes, pain in the ears
C	Cheeks, outer ear, facial bones, teeth, trigeminal nerve	Neuralgia, nerve infections, acne, eczema
D	Nose, lips, mouth, Eustachian tube	Hay fever, rosacea and other catarrhs, deafness, glandular infections
E	Vocal cords, cervical ganglion, esophagus	Esophagus infection, hoarseness, sore throat and nasal problems
F	Neck muscles, shoulders, tonsils	Frozen neck, shoulder pain, tonsillitis, cough, diphtheria
G	Thyroid gland, bursa, elbows	Infection of weight pockets in shoulders, common cold, thyroid gland, goiter (struma)
H	Forearm, wrists, hands,	Asthma, cough, breathing problems,

	fingers, throat, bronchus	respiration deficiency, pain in the forearm
I	Coronary artery, heart including valves and pericardium	Some chest pains, functional heart problems
J	Lungs, bronchi passages, pleura, breasts, nipples	Bronchitis, pleura infection, pneumonia, common cold, influenza, excess of blood in tissues
K	Gallbladder , bile duct	Stomach problems, jaundice
L	Liver, blood	Liver problems, low blood pressure, anemia, poor circulation, joints infection
M	Stomach	Gastric neurosis, poor digestion, heartburn
N	Pancreas, isles of Langerhans, duodenum	Diabetes, ulcers, stomach catarrh
O	Spleen, diaphragm	Stomach problems, hiccup
P	Suprarenal gland	Allergy, chicken-pox
Q	Kidneys	Kidney problems, arteriosclerosis, chronic tiredness
R	Kidneys, urethra	Intoxication, skin illnesses - acne, eczema, ulcers, etc.
S	Small intestine, ovaries, lymphatic circulation	Rheumatism, breathing problems, some types of sterility
T	Colon or groin	Constipation, colon infection, dysentery, diarrhea, hiatus hernia
U	Appendix, abdomen, upper limb	Appendix infection, cramps, breathing problems, acidosis, varicose veins
V	Bladder, knee, genitals including ovaries and testicles	Problems linked to the bladder, frequent knee problems
W	Prostate, muscles innervated by nervus ischiadicus	Sciatica, loin pains (lumbago), problems with urinating, back pains
X	Lower limbs, ankle, foot, toes, plantar arch	Poor blood circulation in feet (cold feet), swelling of ankles, weak and feeble ankles and plantar arches, weakness and cramps of lower limbs
Y	Hip bones, buttocks	Problems in sacroiliac joint, scoliosis
Z	Rectum, anus	Hemorrhoids, tail bone pain while sitting

Contraindication

When the magnetotherapy is forbidden for usage

- **While pregnant.** Even though, there are no known information about a negative effects of magnetotherapy, preliminary caution is needed.
- While **using a sensitive medical electronic devices** such as cardio stimulators, supportive auricular hearing aids, etc.
- During **bleeding** of any origin.
- During **acute tuberculosis**.

- In patients with **a tumor diagnoses** and after a tumor surgery or while chemotherapy treatment is applied (according to physician's consideration).
- During **no infectious or mycotic (fungus) disease**.
- During **convulsive neurology attacks** such as epilepsy, etc.
- During **unknown pain originated in abdominal area**.
- During **hematology diseases** (blood diseases).
- When **extremely low blood pressure** (hypotension).
- Two days before and two days after the period (individual). When we apply magnetotherapy outside the mentioned days, the periods are less surveyor. Of course, the magnetotherapy can be applied during the period except for the lumbar area.
- We do not recommend to mix it with the steroid and the electrolysis therapy. On the contrary, the phototherapy is indicated and ideal together with the usage of laser.

While treated with the pulsing magnetic field it is very important NOT to perform any ex-ray examinations, as well as any irradiation treatments (except the laser therapy). This types of examination methods negatively influence the magnetotherapy outcome. Regeneration processes, which were started, would be terminated. After a longer exposure to ex-rays or any other rays, the magnetotherapy is less effective. It can be, however, very much effective during the after-treatment.