

Electromagnetic Stimulation (EMS)

Contra Indications - There have been no definitive contraindications determined in respect to therapy with variable magnetic fields and light energy. The most common contraindications are:

- **Pregnancy**, is a state in which the dynamics of forming new tissues is the greatest. As a rule, apart from necessary actions, everything else should be avoided during pregnancy. Until now, the influence of magnetic fields on the foetus is unknown. Due to lack of information on the effect of magnetic fields on the foetus, the application of variable magnetic fields in pregnancy should be considered inadvisable.
- **Active neoplastic disease** (particular attention should be paid to local neoplastic and unidentifiable changes). In the majority of cases it has been of a vague etiologic, and the natural history of neo-plastic diseases is also known only in some cases. Experimental data regarding the effect of magnetic fields on neo-plastic cell cultures and animals with an active neoplastic disease are contradictory. In accordance with the principle *primum non nocere* the application of variable magnetic fields in a neoplastic disease should not be used although much data indicates a positive effect of magnetic fields on neoplasms.
- **Active tuberculosis of the lungs**, which results from interactive mechanisms with the tissues. The influence of magnetic fields on the utilisation of oxygen, as well as on the blood flow, is beneficial. Koch's bacilli are aerobes; therefore, based on knowledge of the biological effects of variable magnetic fields, in case of TBC, they should not be applied.
- **Serious infections of a viral, bacterial and mycotic origin** (particular attention should be paid to susceptibility to bleeding and acute inflammation of skin and soft tissue exposed to therapy). Each type of these diseases should be treated by anti-viral, antibiotic and antimyoframe bedic pharmaceuticals.
- **Bleeding from the alimentary tract**, should be divided into massive haemorrhaging – from varies of the gullet and peptic ulcers, to bleeding accompanying diseases of the gastritis. In the case of intensive bleeding, the therapy of choice is an endoscopic or surgical intervention. In the case of bleeding observed with gastritis erosive and haemorrhagic, caution is also recommended in the application of magnetic fields. In case of gastric ulcer the relaxative and anti-spastic action of variable magnetic fields could be considered, but the decision of their application in this disease should be consulted with a doctor, due to the fact that it is frequently accompanied by the gastritis.
- **Conditions after organ transplant.**
- **Electronic implants**, applied in modern medicine, in most cases have good screening from external interference. From a physical point of view, the fields applied in magnetic field therapy, particularly in magnetostimulation, have a small possibility of influencing the operation of electronic implants. The person ordering the therapy rarely has knowledge of the electronic implant's screening quality. In the case of an absence of this knowledge, it is safer to refrain from exposure of the patient to variable magnetic fields.
- **Decompensated endocrinopathy** (e.g. decompensated diabetes).
- **Therapy with photosensitizers** and Skin hypersensitivity to light.
- **Eyeball and eye socket areas should not be exposed to light** (special glasses are provided).
- **Over active thyroid.** Please advise us if you suffer from this condition.
- **Transplant organ.** Please advise us if you have had an organ transplant.



Side Effects

No significant side effects should be expected. The following effects might occur temporarily. Summing up, after taking into consideration the below-presented observations, it should be stated that the application of variable magnetic fields, is safe and the progress of experimental and clinical knowledge will in all likelihood result in verification of the given information.

- **Tingling, cramped and warmth sensation**, may occur particularly in the first three or four days of exposure. This concerns particularly post-traumatic areas of the osseous system.
- **Numbing sensation**.
- **Sleep disorders**, particularly in elderly people. It has been observed only in approx. 3% of older patients. They can also be easily eliminated by an exposure of increasing level of induction and a treatment in the morning (not the afternoon).
- **Irritation / Concentration disorders**, temporarily (interesting that some patients with this as a disorder can be improved with this therapy). Sometimes women during menopause as well as people with an increase tension of the neurovegetative system. The above systems are observed particularly in the first days after exposure. The frequency of their occurrence may decrease through the application of an increasing value of intensity as well as informing the patients of the possibility of their occurrence. These symptoms affect approx. 4% of women and 1% of men.
- **Skin erythema** (skin reddening) in the area of treatment.
- **A temporary intensification** of pain usually occurs during the first period of exposure and affects people with significant degenerative changes of the osseous-joint system.