



## Gastroduodenitis

Results of this study indicated that treatment with decimeter-band electromagnetic fields improved motor function of the stomach and reduced dyspepsia and pain in children suffering from chronic gastroduodenitis. Treatment made use of the "Romashka" apparatus (a cylinder applicator, 100 mm in diameter, power of 6-8 W) applied to the gastroduodenal region, and consisted of 6-12 minute exposures every other day for a total of 8-12 exposures. **(1)**

This controlled study examined the effects of sinusoidally modulated currents (100 Hz) coupled with conventional therapy in children suffering from chronic gastroduodenitis. Children received 8-10 exposures lasting between 6 and 10 minutes. Results showed that the treatment reduced inflammation in 72 percent of patients relative to just a 45-percent rate among controls. About 77 percent of treatment patients experienced elimination of gastro-esophageal and duodenogastral refluxes, compared to 29 percent of controls. **(2)**

General Results of this study indicated that the optimal frequency of pulsed magnetic fields ranges between 10.0 and 25.0 Hz in the treatment of **chronic inflammatory conditions of the locomotor apparatus, ischemia of the blood vessels of the lower extremities, dyspeptic syndrome, lactation mastitis**, and other diseases. Treatment proved best when the therapeutic cycle was repeated after a 2-3 month period. **(3)**

This article reviews the use of magnetotherapy in Czechoslovakia. Noting that this modality has been used for more than a decade, the author states that magnetotherapy has been shown to be effective in treating **rheumatic diseases, sinusitis, enuresis, and ischemic disorders of the lower extremities**. Positive findings have also been shown with respect to **multiple sclerosis and degenerative diseases of the retina**. **(4)**

This review article notes that pulse-type electromagnetic fields (PEMF) are the most frequently used type of electromagnetic therapy. Another form is pulsed radio frequency; PRF therapy generally includes daily sessions of 30-minute exposure and is primarily used in cases of pain and edema, with results being apparent quickly when the therapy is effective. PEMF treatment is most successful when used in bone healing, with results occurring over a longer period of time. **(5)**

This study examined the effects of electromagnetic fields administered over a period of 10 days on 354 patients suffering from various orthopedic conditions. Results showed the effects to be positive, with the greatest benefit experienced among patients with **acute lesions**. **(6)**

Noting that beneficial effects of low-energy, time-varying magnetic fields have been shown since the early 1970s, this review article cites studies pointing to its success in the treatment of a wide range of conditions. The best results for this modality obtained in the area of bone healing. **(7)**

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## Gastroduodenitis (Cont.)

This review article claims that over a quarter of a million patients worldwide with chronically ununited fractures have experienced beneficial results from treatment with pulsed electromagnetic fields. In addition, the author cites studies pointing to the treatment's efficacy with respect to other conditions such as nerve regeneration; wound healing, graft behavior, diabetes, heart attack, and stroke. **(8)**

This review article notes that low-intensity millimeter waves have been used for treating a wide variety of medical conditions in the former Soviet Union since 1977, with more than a million patients treated and more than a thousand treatment centers in existence. This therapy has been approved for widespread use by the Russian Ministry of Health, and over 300 scientific publications have described its effects. A typical course of treatment involves 10-15 daily exposures ranging from 15 to 60 minutes each. **(9)**

This study concluded that the use of millimeter wave (MW) therapy was effective in the treatment of both children and adults suffering from a variety of orthopedic diseases, including osteochondrosis, arthrosis, infantile cerebral paralysis, Perthes' disease, and inborn femur dislocation. MW therapy made use of the G4-142 apparatus (55-65 GHz). Exposure was for 15-30 minutes in children or 30-60 minutes in adults over a period of 10-12 total exposures. **(10)**

This research examined the effects of low-frequency pulsed electromagnetic fields on patients suffering from a wide range of disorders, including **musculoskeletal disorders, neurological disorders, circulatory diseases, traumatic disorders, gastroenterological problems, and stress-related morbidity**. Treatment made use of the Rhumart apparatus, which produced waveforms with peak amplitudes up to 30 G. Results, based on the patients' own subjective ratings, indicated the treatment to be beneficial across most conditions, with the strongest effects seen in those suffering from musculoskeletal and traumatic disorders. **(11)**

This review article summarizes findings presented at the Third Workshop on the use of low-intensity millimeter waves in medicine, held in Zvenigorod, Moscow Region, Russia. Such findings pointed to the efficacy of MW therapy with respect to alcoholism and its associated symptoms, gastric and duodenal ulcers, psoriasis, chronic furunculosis, and cardiovascular diseases. **(12)**

This study examined the effects of magnetotherapy on patients suffering from a variety of eye and brain vascular disorders. Treatment made use of the "Polius-1" apparatus (50 Hz), with most patients receiving a course of 15-20 daily exposures. Results showed overall general improvements in 95 percent of patients with **eye diseases**. **(13)**

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## Gastroduodenitis (Cont.)

This review article notes that low-frequency electromagnetic therapy has been used for a variety of purposes. Those specifically identified the author include **cell growth promotion, pain reduction, improved blood circulation, bonerepair, increased wound healing, sedative effects, enhanced sleep, and arthritic relief.** (14)

This review article notes that treatment with an "Infita" apparatus, used to deliver low-frequency magnetic fields, has been shown to **improve general hemodynamics and microcirculation in addition to exhibiting anti-inflammatory, sedative, and analgesic effects in Olympic-level Russian athletes.** (15)

This review article cites studies pointing to the efficacy of low-frequency magnetic fields in the treatment of a wide variety of conditions, including **burns, arthritis, fractures, arterial aneurysms, PMS, phantom pain, tuberculosis, ischemic heart disease, hypertension, bronchial asthma, and ulcerated varicose veins, among others.** (16)

This study examined the effects of extremely-low-frequency magnetic fields (TAMMAT device) in the treatment of a group of 650 patients suffering from a host of various diseases. Treatment consisted 15-25 minute daily exposures 5 days per week over a total of 20-25 days. Most patients experienced improvements after 2-3 exposures. Marked improvements were seen with respect to **analgesic, anti-inflammatory, anti-tumor, and immune-enhancing effects.** (17)

This article reports on the efficacy of a Russian electromagnetic stimulation apparatus termed "Cascade." The authors state that data from 508 patients suffering from various ailments who were treated with the device indicate it to be anywhere from 75 to 100 percent effective. Examples of conditions in which the device was used include **stubborn fractures, post-traumatic contractures, crush syndrome, and Perthes' disease.** (18)

This review article on the use of pulsed magnetotherapy in Czechoslovakia points to its efficacy across a variety of conditions, **including joint problems, enuresis, multiple sclerosis, diabetes, and carpal tunnel syndrome.**

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## Gastroduodenitis (Cont.)

### Citations:

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## Gastroduodenitis (Cont.)

### Citations:

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