

## **APPLICATION OF DENS THERAPY IN SPORTSMEN UNDERGOING TRAINING WITH GREAT PHYSICAL EXERTIONS**

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Female athletes with high qualification in boat racing undergoing a special training session in Kiev on the Trukhanov Island had a long and detailed discussion of the potentialities of DENS therapy. They also had a chance to see how DENAS apparatus was practically applied. As the sportswomen had just come to this meeting after the training during which they exercised weight lifting, naturally all of them felt "constraint" and stiffness of muscles in the back, arms and legs as well as myalgia.

After the 30 minute demonstration of the DENAS device on one of the sportswomen, namely the apparatus was applied to the area of direct projection of aching muscles, she felt that all pains and other unpleasant sensations disappeared and complete muscular relaxation occurred. The athlete found that the procedure was much more pleasant than the course of massage performed by a highly skilled specialist. In contrast to massage during the device treatment no additional pain was caused and the consequent effect of muscular and psychological relaxation was complete.

This effect was further objectively confirmed when the next morning I carried on a routine examination of the whole group of sportswomen when they were at rest aiming at determination by means of some special biochemical blood tests how their organisms had restored after the previous day heavy physical training. It turned out that the sportswoman who had had a DENS treatment showed a complete restoration. All the other sportswomen showed various degree partial restoration, which was always a rule. Thus, the chief coach and I were convinced both subjectively and by laboratory findings in the advisability of DENS therapy in sports training. Afterwards the team purchased the DENAS apparatus to use it regularly.

I would like to give some more examples of successful DENS therapy application in athletes practicing heavy exercises and high-speed types of sport.

From March to August 2004 I was working as a sports biochemical specialist in the Ukraine National Athletic Team (hurdle race and sprint). I always had my DENAS apparatus with me during training sessions. Having learnt about DENS capacity the sportsmen presented with different complaints. For example, complaints of pain caused by overstrain of the spinal column and joints (mostly, elbow, knee and ankle joints); also by overstrain of various muscles or damage of the tibia periosteum and pain associated with other minor traumas and traumas of muscular skeletal system. In every case I used DENS therapy methods (by this time I had completed DENS qualification courses).

In case of an acute condition (first occurrence of severe pain) treatment was performed in "Therapy" mode at 77Hz frequency at maximum energy level and/or comfortable energy level until the pain was completely relieved or its level was significantly decreased. As a rule the duration of one procedure was from 7 to 20 minutes. In case of emergency a sportsman got the first aid immediately at the stadium during his training. Following treatment almost all of them could resume the training.

In case of more serious traumas not requiring surgical intervention such as sprain of the ankle or

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Achilles' tendons, "advanced" and chronic impairments the treatment was performed twice a day for 3 days or 3 weeks. At that, "Test" mode as well as "Therapy" mode were used at comfortable energy level when indicated. All athletes following DENS therapy showed high positive effects manifested in quick relief of pain syndrome, significant decrease of the rehabilitation period compared to that following conventional methods. Besides, DENS therapy enabled to treat the athletes without suspending them from physical exercises.

I would like to present one particular case from my practice. In March 2004 a young and promising sportswoman R.A. specializing in sprint sought medical attention. She complained of muscular pain on the posterior surface of the right femur. She could not actively participate in training. When questioned, she informed that in January that year during the competition she got a trauma of muscles and had to leave the racing track because of acute pain. The process of training was interrupted and the athlete underwent a course of medical treatment. She could resume training only in March that year but the pain occurred again. On muscle palpation a dense mass about 1 cm in diameter and 7 cm in length was felt. We started DENS therapy course twice a day for the period of 21 days. At first when the patient felt constant pain "Therapy" mode of DENS treatment was used at frequency 77, comfortable energy level.

Ten days later the patient experienced pain only after training and at first the treatment was carried on in the "Test" mode and then it was continued in the "Therapy" mode working on the identified trigger zones. Prior to every training as well as following every DENS therapy session a thin layer of "Malavtelin" cream was applied to the zone of direct projection of the injured muscle. Then after a ten day break (there was a break between the training sessions) the course of therapy was resumed in April following the same scheme of treatment. The third course of treatment was carried out in May. It consisted of three sessions: one session a day and we again we followed the same scheme. The treatment was discontinued due to a complete lack of complaints and restoration of high athletic efficiency. By this time the intramuscular mass palpated previously resolved completely. This sportswoman fulfilled the standard of " Sport Master of International Level" at the competition held at the end of May.