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## **SLING-THERAPY IN MEDICAL REHABILITATION**

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**Abstract.** This overview deals with new for Ukraine method of physical rehabilitation – sling therapy. The restoration of muscular-skeletal function is realized by physical excesses with or without special devices. But the limiting factor in many cases is severe pain that person should overcome while excesses. One of the peculiarities of the sling therapy is that the suspension by itself is an unstable support of the body. Such unstable support causes redistribution of muscular tone and activates the coordination of the movements thus contributing to the restoring the balance. Several places of support and using such elastic cords provide the painless performance of the exercise. Sling therapy can be used for diagnostic of «the weak link» in muscle-skeletal chain, correction the asymmetry of muscular tone, relief of pain while performing the exercise, and for improvement of the coordination, "weak links" testing, painless performance of the exercises.

Muscular-skeletal disturbances are troubling not only sportsmen but many ordinary people that are not engaged in sports. The main approaches to restoration of muscular-skeletal function are realized by physical excesses with or without special devices. But the limiting factor in many cases is severe pain that person should overcome while excesses.

Sling-therapy or suspension therapy is the method of physical rehabilitation where the suspension of the body or limbs is used. Due to these suspensions the axial load on the joints is taken off and the body is supported in the space while doing the exercises. And so we can say that the method of sling therapy gives a possibility to facilitate exercising.

One of the peculiarities of the sling therapy is that the suspension by itself is an unstable support of the body. Such unstable support causes redistribution of muscular tone and activates the coordination of the movements thus contributing to the restoring the balance [1,2,3,4]. As a result the misbalance in tone between the right part and the left part of the body and between the muscles-antagonists is removed.

Using of elastic cords in suspension system gives possibility to perform some exercises with resistance. It is important aspect of the equal muscles tone restoration [3,5,6,7]. These cords can be also used for facilitation of the some movements performing.

One of the main obstructions in physical rehabilitation is pain while moving. Several places of support and using such elastic cords provide the painless performance of the exercise. As follows, sling therapy is indicated to the people, who feel pain while doing certain exercises [4, 8].

Variable ways of suspension the limbs can exclude the strong muscles from performing the exercises. As the result we can use the groups of muscles that are needed training and form more rational patterns of motion [4, 9, 10, 11].

Furthermore, the system of suspension therapy can be used in diagnostics «the weakest links» in muscle-skeletal system and to remove it successfully while training [9].

There are indications of using slung-therapy that are based on the peculiarities of this method that are mentioned above:

1. The diagnostic of «The weakest link» in muscle-skeletal chain

- 2. Correction the asymmetry of muscular tone
- 3. Pain while performing the exercise
- 4. Improvement of the coordination of moves.

One more peculiarity of sling therapy is that it is very comfortable in use for patient. It can be use individually, or in small groups in hospitals for in-patients or in rehabilitation centers. Also it can be used in groups is sport centers or fitness-centers. It can be used at home after passing the teaching course is special institutions.

Clinical studies showed the efficiency of using the sling therapy in treating different diseases and muscle dysfunctions [6], particularly in treating pain in the lower back [12, 13,14,15,], neck [16, 17], aftermaths of sport and ballet traumas [12], injures of knee joint [18], shoulder joint [19,20], after-pregnancy pelvis and spine

pain [21], fibromyalgia [8], chronic muscle-skeletal pain and other. Exercising using suspension system can be applied in aged patients [22].

Thus successful use the exercises with suspensions in rehabilitation of sportsmen is very promising, especially when the coordination and accuracy is needed [10,13,23,24,25].Finally, in addition to the therapeutic results, using sling-therapy facilitates the work of doctor of rehabilitation and increases the effectiveness of the exercises.

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