

TEONA LAPERASHVILI, NERIMAN TSINTSADZE, NATO ZOSIDZE, TEONA KAIKATSISHVILI
**THE ROLE OF SPORTS REHABILITATION IN MEDICINE - BRINGING SPORTS SCIENCE AND
 MEDICINE: A MULTIFUNCTIONAL APPROACH TO REHABILITATION**

Batumi Shota Rustaveli State University, Batumi, Georgia

Doi: <https://doi.org/10.52340/jecm.2026.01.09>

თეონა ლაპერაშვილი, ნერიმან ცინცაძე, ნატო ზოსიძე, თეონა კაიკატიშვილი.

სპორტული რეაბილიტაციის როლი მედიცინაში - სპორტული მეცნიერებისა და მედიცინის

შერწყმა: რეაბილიტაციისადმი მრავალფუნქციური მიდგომა

ბათუმის შოთა რუსთაველის სახელმწიფო უნივერსიტეტი, ბათუმი, საქართველო

რეზიუმე

სპორტული რეაბილიტაცია დღეს მედიცინის განუყოფელი და სტრატეგიულად მნიშვნელოვანი დარგია, რომელიც სცილდება პროფესიონალი სპორტსმენების ჩვეულებრივ მომსახურების ფარგლებს. მისი როლი მოიცავს არა მხოლოდ ტრავმების შემდგომ აღდგენას, არამედ მათ პროფილაქტიკას, ორგანიზმის ფუნქციური შესაძლებლობების აღდგენას და ხარისხიანი ცხოვრების უზრუნველყოფას სხვადასხვა პოპულაციურ ჯგუფებში.

თანამედროვე სპორტული რეაბილიტაცია დაფუძნებულია მულტიდისციპლინარულ მიდგომაზე, რომელიც აერთიანებს ორთოპედიას, ნევროლოგიას, ფიზიოთერაპიასა და ფსიქოლოგიას. განსაკუთრებით პერსპექტიულია აღმოსავლური პრაქტიკების, როგორცაა იოგა, ტაიჩი და ციგუნი, ინტეგრაცია, რაც ხელს უწყობს არა მხოლოდ ფიზიკური, არამედ ფსიქოემოციური რეაბილიტაციის პროცესს. აღსანიშნავია, რომ რეაბილიტოლოგის პირადი გამოცდილება სპორტში მნიშვნელოვნად აუმჯობესებს კლინიკურ შედეგებს, რადგან ის საშუალებას აძლევს სპეციალისტს უფრო სიღრმისეულად გაეცნოს დატვირთვების სპეციფიკას და პაციენტის ინდივიდუალურ საჭიროებებს.

ამრიგად, სპორტული რეაბილიტაცია წარმოადგენს მედიცინის ისეთ დარგს, რომელიც აერთიანებს მეცნიერულ მიდგომას, პრაქტიკულ გამოცდილებასა და ინდივიდუალურ მორგებულობას, რაც საბოლოოდ მიმართულია ადამიანის ჯანმრთელობისა და საერთო კეთილდღეობის ამაღლებისკენ.

Introduction. Sports rehabilitation is one of the significant directions in modern medicine, assisting not only professional athletes but also the wider community in maintaining health and preventing injuries. It is a necessary field not only for athletes but for all people, as it helps prevent injuries, provides post-operative rehabilitation, strengthens the muscular system, and improves general health. It also corrects body shape and enhances the overall psycho-emotional state of the organism.

Why is Sports Medicine Important?

1. Injury Prevention and Treatment
2. Post-Operative Rehabilitation
3. Strengthening of Muscular and Skeletal Systems
4. Restoration of Cardiovascular and Respiratory Systems
5. Strengthening of the Immune System
6. Psychological Health and Stress Management
7. Integration with Various Medical Fields

Sports Rehabilitation, Injury Prevention, and the Role of Eastern Sports and Medicine in Rehabilitation - The Influence of Eastern Sports on Body and Health. Eastern sports disciplines are largely built on the simultaneous work of the body and mind. Significant attention is paid to the tactics and

strategy of movement, which improves quick thinking skills; the body begins to control movements at a reflexive level.

Eastern martial arts originated in different times and places, but their essence, load, "handwriting," meaning, and style are almost the same for all. The main basic, universally known styles, refined over centuries and preserved to this day, are Chinese, Japanese, Indian, Thai, Korean, and Tibetan sports activities, which are now widely spread throughout the world, including quite successfully in our country, Georgia.

Sports such as Yoga, Tai Chi, Qigong, Kung Fu, and Karate are not only conducive to developing physical skills but are also considered effective methods for regeneration, rehabilitation, and improving general health status. From the perspective of sports medicine, they have many therapeutic and prophylactic benefits. Let's examine their common characteristics one by one to understand what enables the aforementioned.

Yoga is an Indian sports movement that encompasses a combination of physical exercises, asanas, breathing techniques, and concentration practices. Yoga is considered an ancient philosophical teaching that develops a person holistically. Through the body, mind, and emotions, Yoga helps a person achieve physical and psychological harmony.

Tai Chi is a part of Chinese martial art originating from Tai Chi Chuan and translates as "the supreme ultimate fist." It balances the energy of the sky within the organism, which is why the movements are very slow, firm, and measured. This promotes the development of body coordination. Tai Chi improves the functioning of the cardiovascular system, strengthens joints, tendons, and adds a sense of balance to the body, increasing spinal flexibility. It is a blend of soft, flexible, "dance-like" dynamic movements that require strong static postures and concentration.

Qigong / Tai Chi (Tai Chi Chuan is more commonly known as a martial art, while Qigong is spiritual). Qigong is also a traditional system of Chinese health practice that combines meditation, breath control, and slow-paced physical exercises that have an invigorating effect on our body.

Kung Fu is a philosophy. It is part of Taoism and Zen Buddhism, teaching us to fight difficulties to correct ourselves and become stronger than before; to be tolerant of everything; to calmly accept what happens in life and learn from mistakes. All of this is part of the multifaceted aspect of Kung Fu art, along with physical training.

Karate is a Japanese defensive art that literally means "the way of the empty hand" or "the way of the free hand." Karate develops not only the entire whole body but also the spirit, mentality, and defensive thinking strategy.

Eastern sports disciplines have been refined over centuries and have truly reached an artistic level. This level necessitates their implementation not only in medical rehabilitation but also in the daily lives of each of us. The listed sports - Kung Fu, Wing Chun, Tai Chi, and Karate - should be considered not only from the prism of defensive arts but also from the perspective of rehabilitation and a healthy lifestyle. The combat elements, movement combinations, and kata used here contribute to the complete rejuvenation of the organism, strengthening and fortifying the bone-tendon-muscular system, and post-traumatic rehabilitation.

The combination of Japanese Karate, Chinese Tai Chi, Wing Chun, Kung Fu, and Indian Yoga, accumulating and uniting their cultural richness, provides us with rich information. Strikes on specific "hot points" refer us to biologically active meridian points. Impact on them is widely used in Eastern medicine for the treatment of many diseases.

The surface of the human body is covered with meridian points, of which up to 150 are more frequently and actively used. Through acupuncture and acupressure, we can influence the biologically active points located on the body both manually - by hand - and by various methods: with hot and cold needles, gold and silver, special shaped sticks, stones - Gua Sha, and electrical devices. Through acupuncture, active treatment of problems such as sleep disorders, fatigue, painful menstruation, sciatica, heart rhythm disorders, increased irritability, nervous excitability, and psychosomatically manifested diseases, etc., is carried out [1].

Impact on acupuncture points includes the following types of manual technique massages: Shiatsu, We Gu, Born therapy, Thai massage, foot reflexology, Sujok therapy, hot stone massage, and others. It also includes dynamic stretches similar to Yoga asanas, joint mobilization, and various methods of affecting muscles, such as elbow techniques and deep palpatory movements.

Fitness is a coordinated system of several directions of physical exercise, together with special equipment, designed to improve body contour, strengthen health by influencing muscles and consciousness. Any type of fitness is aimed at improving and shaping body health.

Pilates is a set of physical exercises aimed at strengthening the muscular corset, developing flexibility, improving movement coordination, and correcting posture. The exercise is performed at a calm pace, without excessive load or increased heart rate. In Yoga, great attention is paid to breathing and mental concentration. Pilates, however, uses various equipment and devices. This equipment helps create additional resistance and intensify the exercises, making Pilates a more strength-oriented workout.

TRX (Total Body Resistance Exercise)** allows us to work on all muscle groups, including the strengthening of large and small muscles. Through it, we develop strength, endurance, and perform functional exercises. For developing coordination and balance. Using an unstable base during TRX training requires active muscle work to maintain equilibrium. TRX training is suitable for people of all fitness levels and is effective in developing strength, endurance, flexibility, and balance.

Ultimately, through the combination of all these exercises at our disposal, our goal is:

- Functional Restoration
- Restoration of Muscle Mass and Strength
- Improvement of Coordination and Balance
- Psycho-Emotional Well-being
- Enhancement of Quality of Life

Conclusion. Eastern sports disciplines are used in sports medicine as effective methods for injury prevention, rehabilitation, and maintaining psycho-emotional stability. Their integration into modern sports rehabilitation assists patients and athletes in a quick and high-quality recovery.

Why is it essential for a medical professional working with athletes to exercise and know the specifics of the sport?- Such doctors not only possess theoretical knowledge but also have practical experience of the influence of exercise on the body, which allows them to better guide patients and provide tailored recommendations. A doctor who has personally experienced a sports injury better realizes that:

- Standard rehabilitation programs do not always work – an individualized plan tailored to the patient is necessary.
- Functional exercises are more effective than physiotherapy alone – the imitation of real sports movements returns the patient to an active life more quickly.
- An athlete is more motivated but often neglects the complexity of rehabilitation – therefore, the doctor needs an empathetic approach so that the patient follows the recommendations to the end.

- A doctor who is physically active and involved in sports themselves feels, understands, and manages sports injuries and the rehabilitation process much better.

By integrating these specific exercises with multifaceted approaches, we have observed sustained improvements in long-term outcomes. Furthermore, incorporating this framework into medical curricula would significantly enhance the diagnosis and management of this condition throughout its duration.

References:

1. Hollifield, M., N. Sinclair-Lian, T.D. Warner, et al. 2007. Acupuncture for posttraumatic stress disorder — A randomized controlled pilot trial. *Journal of Nervous and Mental Disease* 195(6):504-513.
2. «Еще раз о массаже» Автор: Белая Н.А. (1977)
3. “Holistic healing – Sujok Therapy.” PDF. 2010–2015.
4. Subhra Basu, Srihari Sharma. Suspension Training, A Viable Resistance Training Mode for Increasing Muscular Fitness in Adults - A Scoping Review. *JCHR*, 2024; 14(5):1710-1715.

TEONA LAPERASHVILI, NERIMAN TSINTSADZE, NATO ZOSIDZE, TEONA KAIKATSISHVILI
**THE ROLE OF SPORTS REHABILITATION IN MEDICINE - BRINGING SPORTS SCIENCE AND
 MEDICINE: A MULTIFUNCTIONAL APPROACH TO REHABILITATION**

Batumi Shota Rustaveli State University, Batumi, Georgia

SUMMARY

Sports rehabilitation, as a part of the medical rehabilitation, is today an integral and strategically important field of medicine that extends beyond the conventional care of professional athletes. Its role encompasses not only recovery from injuries but also their prevention, the restoration of the body's functional capabilities, and ensuring a high quality of life for various population groups.

Modern sports rehabilitation is based on a multidisciplinary approach that integrates orthopedics, neurology, physiotherapy, and psychology. The integration of Eastern practices such as Yoga, Tai Chi, and Qigong is particularly promising, as it contributes to not only physical but also psycho-emotional rehabilitation. It is noteworthy that the personal experience of a rehabilitation specialist in sports significantly improves clinical outcomes, as it allows the specialist to gain a deeper understanding of the specifics of physical loads and the individual needs of the patient.

Thus, sports rehabilitation represents a field of medicine that combines a scientific approach, practical experience, and individual customization, ultimately aimed at enhancing human health and overall well-being.

Keywords: Sports Rehabilitation, Medicine-Bridging Sports Science, Medicine

