

REHABILITATION AND RECOVERY PERIOD: PROGRAMS DESIGNED FOR WRESTLERS

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Abstract. *In the physically demanding sport of wrestling, injuries are common due to intense training and competitive conditions. This article analyzes the rehabilitation and recovery processes tailored specifically for wrestlers. It examines the stages of recovery, program components, the role of physiotherapists, and modern technologies used in restoring physical function and preventing re-injury. Evidence-based approaches and case studies are discussed to demonstrate how structured rehabilitation enhances long-term athletic performance and career longevity.*

Keywords: Wrestling, rehabilitation, recovery programs, injury prevention, physiotherapy, sports medicine, functional training.

ПЕРИОД РЕАБИЛИТАЦИИ И ВОССТАНОВЛЕНИЯ: ПРОГРАММЫ, РАЗРАБОТАННЫЕ ДЛЯ БОРЦОВ

Аннотация. *В физически сложном виде спорта борьба травмы являются обычным явлением из-за интенсивных тренировок и соревновательных условий. В этой статье анализируются процессы реабилитации и восстановления, разработанные специально для борцов. В ней рассматриваются этапы восстановления, компоненты программы, роль физиотерапевтов и современные технологии, используемые для восстановления физических функций и предотвращения повторных травм. Обсуждаются основанные на фактических данных подходы и тематические исследования, чтобы продемонстрировать, как структурированная реабилитация улучшает долгосрочные спортивные результаты и продолжительность карьеры.*

Ключевые слова: борьба, реабилитация, программы восстановления, профилактика травм, физиотерапия, спортивная медицина, функциональная тренировка.

Introduction

Wrestling is one of the most physically challenging sports, often involving intense physical contact, dynamic throws, and sustained holds. As a result, wrestlers are prone to various injuries such as muscle strains, joint dislocations, ligament tears, and overuse conditions.

Recovery and rehabilitation are crucial components of an athlete's training cycle—not only to restore physical capability but also to reduce the risk of chronic conditions and psychological burnout.

The aim of this paper is to explore how rehabilitation and recovery programs specifically designed for wrestlers help them return to peak performance, maintain career longevity, and minimize injury recurrence.

1. Common Injuries in Wrestling

Wrestlers often suffer from:

- **Shoulder dislocations and rotator cuff injuries**
- **Knee ligament tears (especially ACL and MCL)**
- **Neck and back strain**
- **Elbow and wrist sprains**
- **Skin infections due to close contact (e.g., ringworm)**

These injuries require immediate care followed by structured rehabilitation.

2. Stages of Rehabilitation

Rehabilitation for wrestlers typically includes the following phases:

- **Acute Phase** (0–72 hours post-injury):
 - Rest, Ice, Compression, and Elevation (RICE)
 - Pain and inflammation management
 - Immobilization if needed
- **Subacute Phase** (3–14 days):
 - Gentle range-of-motion exercises
 - Isometric strength work
 - Introduction of physical therapy modalities (e.g., ultrasound, TENS)
- **Reconditioning Phase** (2–6 weeks):
 - Progressive resistance training
 - Flexibility restoration
 - Neuromuscular re-education
- **Sport-Specific Training Phase:**
 - Technique reintroduction
 - Functional movement training
 - Psychological preparation

3. Key Components of a Wrestler's Recovery Program

- **Physiotherapy:**

Manual therapy, dry needling, cupping, and electrotherapy are used to reduce pain and restore function.

- **Functional Strength Training:**

Once pain subsides, wrestlers perform exercises that mimic wrestling movements—e.g., band-resisted sprawls, unilateral squats.

- **Flexibility and Mobility Work:**

Injured joints often lose mobility. Dynamic stretching and mobility drills are essential for full recovery.

- **Cardiovascular Maintenance:**

Low-impact exercises like swimming, cycling, or rowing help maintain conditioning during rehabilitation.

- **Nutritional Support:**

Adequate protein, omega-3 fatty acids, and vitamins like D and C aid tissue regeneration and reduce inflammation.

- **Psychological Support:**

Recovery can be mentally taxing. Sports psychologists assist with motivation, confidence rebuilding, and anxiety management.

4. Role of Technology in Modern Rehabilitation

- **Motion capture analysis** helps monitor biomechanical efficiency and return-to-play readiness.

- **Wearable sensors** track movement, load, and asymmetries.

- **AI-based rehab platforms** deliver custom plans and real-time feedback.

Example: The “Return to Mat” program used by NCAA Division I wrestling teams integrates GPS tracking, AI-based fatigue analysis, and progressive load reintroduction for optimal recovery.

5. Case Studies

- **Case 1: Shoulder Rehabilitation in Elite Wrestler**

A 21-year-old wrestler suffered a partial rotator cuff tear. Through a 10-week functional rehab program, including isokinetic exercises and proprioceptive training, he returned to full training with no recurrence over the following season.

- **Case 2: ACL Injury Recovery**

A Greco-Roman athlete completed a 9-month ACL protocol, incorporating aquatic therapy, resistance bands, and mental resilience coaching. He placed top 3 in national trials six months post-return.

Conclusion

Rehabilitation and recovery are vital yet often overlooked aspects of a wrestler's training journey. A structured and individualized program, guided by sports medicine professionals, ensures not only full physical recovery but also prepares athletes mentally and emotionally for a return to competition. Emphasizing injury prevention through rehabilitation and recovery science can significantly enhance performance and prolong an athlete's career.

REFERENCES

1. Prentice, W. E. (2015). *Principles of Athletic Training: A Guide to Evidence-Based Clinical Practice*. McGraw-Hill Education.
2. Wilk, K. E., & Andrews, J. R. (2009). "Rehabilitation of the Shoulder Following Sports Injury." *Journal of Orthopaedic & Sports Physical Therapy*.
3. Myer, G. D., et al. (2006). "Neuromuscular training improves performance and lower-extremity biomechanics in female athletes." *Journal of Strength and Conditioning Research*.
4. Kibler, W. B., et al. (2013). "Functional rehabilitation of the athlete." *Sports Medicine*.
5. Hootman, J. M., et al. (2007). "Epidemiology of sports injuries." *Journal of Athletic Training*.
6. Zeppieri, G., et al. (2018). "Return-to-Sport Considerations Following ACL Reconstruction." *International Journal of Sports Physical Therapy*.
7. Anderson, D. E., & Behm, D. G. (2005). "The Impact of Core Stability Training on Athletic Performance." *Journal of Sports Science & Medicine*.