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# The importance of rehabilitation & assessment in sports: A review

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## Abstract

### **Background:**

- To create awareness among professionals & students. For betterment of evidence based practices.
- To get the importance of assessment and rehabilitation in sports.

# Methodology:

### A. Data Source

Relevant articles were identified by searching from: Google Scholar, PuBMed, Science direct, EBSCO, Web of Science, shodhganga, SCOPUS, Elsevier.

## **B.** Data Selection

Little significant scientific studies were found relating to the importance of rehabilitation & assessment in sports. Five studies were selected based on inclusion criteria. Two pilot studies included as The Role of assessment in sports.

**Results:** Rehabilitation based on multidisciplinary-patient centred approach and assessment included vital signs, general medical examination, musculoskeletal examination & athletic fitness test.

**Conclusions:** Complete and proper assessment of a client will leads to helpful in designing rehabilitation programme and enhance performance level outcomes.

After an assessment it will not only helpful in injured client even helpful to healthy athletic population in terms of prevention of injury and other co morbidities.

Keywords: physiotherapy, rehabilitation, assessment, multidisciplinary

# Introduction

Exercise and Sports physiotherapist specialized physiotherapist confer evidence – based advice on safe and secure participation in sports and exercise. They also play a enormous role in helping athletes of all ages and all levels of ability to enhance their performance. Physiotherapy is a requisite part of rehabilitation in any sports injury including knee, ankle and soft tissue injuries.

### Definition

The rehabilitation is defined s "a cluster of measures that assist particular, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments". An admittable or a recognised professional who set forth advanced competencies in the upgrading of safe physical activity participation, provision of advice, and adaptation of rehabilitation and training interventions, for the purposes of preventing injury, restoring optimal function, and contributing to the enhancement of sports performance, in athletes of all ages and abilities, while ensuring a high standard of professional and ethical practice.

An assessment usually involves conducting examination and gathering the information that makes a clinician to determine a diagnosis.

An assessment usually involves questioning, observing and examining the patients about the nature, duration, and severity of the client's problems ad coves the client's all possible physical assessment.

Physiotherapy is an essential part of rehabilitation in any sports injury including soft tissue injuries, knee and ankle. Physiotherapist an enlist a wide range of evidence based-clinical skills that can be unified across a variety of soft tissue, ankle and knee injuries commonly including many more. Basic principles of rehabilitation – timeframe for tissue healing, accelerated rehabilitation, pain control, joint hypomobility, proprioception, Exercise rehabilitation methods (including strength tarining, balance and perturbation training and rehabilitation) discharge plan include home exercise programme. Assessment of mechanical principle of human movements depicture a key tool to distinguish normal and abnormal or pathological patterns in a wide variety of applications. In rotation to sports – the risky patterns lead to an increased risk for grievous injuries. An assessment ultimate help to design a best treatment protocol according to condition of patient and their comfortability, ease that leads to achieving a good level of performance outcomes. Physiotherapist an indiscernible part of the sports medicine team and has a crucial role in the rahabiliation programme. Many available literature – shown it is evident that supports physios are also playing a great or bigger role in supporting uninjured athelets by an assessment.

#### **Role of Physiotherapy**

- 1. Injury treatment.
- 2. Injury prevention.
- 3. Rehabilitation.
- 4. Performance enhancement.

### **Physiotherapy Treatment Techniques**

- Mobilisation
- Massage
- Manipulation
- Exercises prescription
- Acupuncture
- Taping

### **Materials and Methods**

**Study Design:** Narrative Study/Literature Review **Source of Data:** PuBMed, Science direct, EBSCO, SCOPUS, Web of Science, shodhganga, Google Scholar.

#### **Results and Discussion**

Rehabilitation based on multidisciplinary-patient centred approach and assessment included vital signs, general medical examination, musculoskeletal examination & athletic fitness test. Lack of literature data or significant studies. Evidence based practices needs more researches based on respective injury and disability of region like SCI & many more.

#### Conclusion

Complete and proper assessment of a client will leads to helpful in designing rehabilitation programme and enhance performance level outcomes. After an assessment it will not only helpful in injured client even helpful to healthy athletic population in terms of prevention of injury and other co morbidities.

#### References

- 1. https://www.taylorfrancis.com/chaptrs/edit/10.4324/9780203552407-16/goal-setting-sport-injury rehabilitation-monna-arvinen-barrow-brian-hemmings
- 2. https://www.sciencedirect.com/science/article/abs/pii/S1466853X21001450
- 3. https://www.mdpi.com/1424-8220/21/7/2331/htm
- 4. Della Villa F, Buckthorpe M, Grassi A, Nabiuzzi A, Tosarelli F, Zaffagnini S *et al.* Systematic Video Analysis of ACL Injuries in Professional Male Football (Soccer): Injury Mechanisms, Situational Patterns and Biomechanics Study on 134 Consecutive Cases. Br. J. Sports Med,2020:54:1423-1432.
- 5. Hewett TE, Myer GD, Ford KR, Heidt RS, Colosimo AJ, McLean SG *et al.* Biomechanical Measures of Neuromuscular Control and Valgus Loading of the Knee Predict Anterior Cruciate Ligament Injury Risk in Female Athletes: A Prospective Study. Am. J. Sports Med,2005:33:492-501.
- 6. Alentorn-Geli E, Myer GD, Silvers HJ, Samitier G, Romero D, Lázaro-Haro C *et al.* Prevention of Non-Contact Anterior Cruciate Ligament Injuries in Soccer Players. Part 1: Mechanisms of Injury and Underlying Risk Factors. Knee Surg. Sports Traumatol. Arthrosc, 2009:17:705-729.
- Leppänen M, Pasanen K, Krosshaug T, Kannus P, Vasankari T, Kujala UM *et al.* Sagittal Plane Hip, Knee, and Ankle Biomechanics and the Risk of Anterior Cruciate Ligament Injury: A Prospective Study. Orthop. J. Sports Med,2017:5:2325967117745487.
- 8. Leppänen M, Pasanen K, Kujala UM, Vasankari T, Kannus P, Äyrämö S *et al.* Stiff Landings Are Associated with Increased ACL Injury Risk in Young Female Basketball and Floorball Players. Am. J. Sports Med, 2017:45:386-393.
- 9. Webster KE, Feller JA. Exploring the High Reinjury Rate in Younger Patients Undergoing Anterior Cruciate Ligament Reconstruction. Am. J. Sports Med,2016:44:2827-2832.
- 10. Wiggins AJ, Grandhi RK, Schneider DK, Stanfield D, Webster KE, Myer GD. Risk of Secondary Injury in Younger Athletes After Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-Analysis. Am. J. Sports Med, 2016:44:1861-1876.
- 11. Poulsen E, Goncalves GH, Bricca A, Roos EM, Thorlund B, Juhl CB. Knee Osteoarthritis Risk Is Increased 4-6 Fold after Knee Injury-A Systematic Review and Meta-Analysis. Br. J. Sports Med, 2019:53:1454-1463.
- 12. Benjaminse A, Holden S, Myer GD. ACL Rupture Is a Single Leg Injury but a Double Leg Problem: Too Much Focus on "symmetry" Alone and That's Not Enough! Br. J. Sports Med,2018:52:1029-1030.
- 13. Bencke J, Aagaard P, Zebis MK. Muscle Activation During ACL Injury Risk Movements in Young Female Athletes: A Narrative Review. Front. Physiol,2018:9:445.
- 14. Alentorn-Geli E, Myer GD, Silvers HJ, Samitier G, Romero D, Lázaro-Haro C *et al.* Prevention of Non-Contact Anterior Cruciate Ligament Injuries in Soccer Players. Part 2: A Review of Prevention Programs Aimed to Modify Risk Factors and to Reduce Injury Rates. Knee Surg. Sports Traumatol. Arthrosc,2009:17:859-879.

- 15. Buckthorpe M, Della Villa F. Optimising the "Mid-Stage" Training and Testing Process After ACL Reconstruction. Sports Med,2020:50:657-678.
- 16. King E, Richter C, Daniels KAJ, Franklyn-Miller A, Falvey E, Myer GD *et al.* Biomechanical but Not Strength or Performance Measures Differentiate Male Athletes Who Experience ACL Reinjury on Return to Level 1 Sports. Am. J. Sports Med,2021:49:918-927.