

Effect of Proprioceptive Exercise Training on Joint Reposition Sense and Balance of Athletes with Knee Injury

Gajanana Prabhu, B.

Assistant Professor, Department of P. G. Studies and Research in Physical Education,
Kuvempu University, Shimoga 577451 Karnataka,
Phone: 09845311458; email prabhuji888@gmail.com

Abstract

The purpose of the study was to find the effects of proprioceptive exercise training on joint reposition sense and balance in athletes with knee joint injury. The subjects selected for the purpose of the study were five male post graduate students between the age group of 23 to 29 years pursuing their M. P. Ed. during the academic year 2012-13. The subjects suffered from knee injury during sporting endeavors at intercollegiate and inter University levels. All the subjects were recovering from sprained ligament of right leg that occurred within a span of one year. Tests included were Weight-Bearing Joint Reposition Sense; Non-Weight-Bearing Joint Reposition Sense; Romberg's test- Bilateral; and Romberg's test- Unilateral. The experimental design selected for the present investigation was single group pre test- post test design. The selected tests were administered to the subjects twice during pre test and post test situations. Mean, Standard Deviation 't' tests were included to statistically treat the data. The pre and post test scores of subjects on joint reposition sense test with and without weight bearing, and bilateral Romberg's test for balance showed significant differences. The unilateral Romberg's test for balance does not show significant difference. It was concluded that the proprioceptive exercise training during post injury rehabilitation has beneficial effects on joint position sense and balance of athletes with knee injury.

KEY WORDS: Knee injury, Sprain, Rehabilitation, Proprioceptors, Proprioceptive exercises.

Introduction

Many injuries are season-ending or even career- ending. In these cases it is particularly important to be realistic with the athlete in setting the goals for recovery and return. Determining when to allow an athlete to resume training and competition following an injury is one of the most crucial and difficult functions of any physical education personnel. A thorough understanding of the mechanics, physiology, patho-anatomy, and healing principles in injured tissues is essential to

making appropriate decisions regarding return to play.

One of the major contributions the trainer can make to the welfare of the athlete is in the area of rehabilitation. The overall goal of the treatment and rehabilitation programme is to return the athlete to his or her desired level of participation as soon and as safely as possible. The type of rehabilitation program that is prescribed frequently determines what level of athletic participation will be possible in the future. Rehabilitation restores full flexibility,