

Committee on Sports Medicine

Knee Brace Use by Athletes*

The knee is the most frequently injured joint during athletic events, and the medial collateral ligament is one of the most frequently injured ligamentous structures of the knee. The medial collateral ligament is a prime stabilizer of the medial side of the knee. The most frequent cause of injury to this ligament is a blow from the lateral side of the knee or thigh with or without a rotatory force, which causes a valgus stress. In the growing child, similar forces to the lateral side of the knee may result in a femoral fracture due to displacement of the distal epiphysis.

It has become a goal of sports medicine enthusiasts to decrease the number of knee injuries and, specifically, the medial knee injury. The most readily apparent method to protect the knee is to provide additional external support. The lateral unidirectional articulated knee brace, strapped to the thigh and the calf, was developed in an attempt to reduce knee injuries. These lateral knee-stabilizing braces, the so-called "prophylactic knee braces," have become widely used by football players at all levels of skill. A number of early reports provided mixed conclusions as to the value of these braces.¹ Two recent comprehensive studies both concluded that so-called preventive braces are not preventive and may, in fact, be harmful.^{2,3}

Based on current evidence, the American Academy of Pediatrics recommends that lateral unidirectional knee braces not be considered standard equipment for football players because of lack of efficacy and the potential of actually causing harm.

COMMITTEE ON SPORTS MEDICINE, 1989-1990

Michael A. Nelson, MD, Chairman
Barry Goldberg, MD
Sally S. Harris, MD
Gregory L. Landry, MD
William L. Risser, MD

Liaison Representatives
Oded Bar-Or, MD, Canadian Paediatric Society

Richard Malacrea, National Athletic Trainers Association
Roswell Merrick, National Association for Sport and Physical Education

AAP Section Liaison

David M. Orenstein, MD, Section on Diseases of the Chest
Arthur M. Pappas, MD, Section on Orthopaedics

This statement has been approved by the Council on Child and Adolescent Health. The recommendations in this statement do not indicate an exclusive course of treatment to be followed. Variations, taking into account individual circumstances, may be appropriate.

Reprint requests to Publications Dept, American Academy of Pediatrics, 141 Northwest Point Blvd, PO Box 927, Elk Grove Village, IL 60009-0927.

PEDIATRICS (ISSN 0031 4005). Copyright © 1990 by the American Academy of Pediatrics.

REFERENCES

1. France EP, Paulos LE, Jayaraman G, Rosenberg TD. Biomechanics of lateral knee bracing, II: impact response of the braced knee. *Am J Sports Med.* 1987;15:430-438
2. Teitz CC, Hermanson BK, Kronmal RA, et al. Evaluation of the use of braces to prevent injury to the knee in collegiate football players. *J Bone Joint Surg Am.* 1987;69:2-9
3. Grace TG, Skipper BJ, Newberry JC, et al. Prophylactic knee braces and injury to the lower extremity. *J Bone Joint Surg Am.* 1988;70:422-427

Knee Brace Use by Athletes
Pediatrics 1990;85;228

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/85/2/228>

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:
<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Knee Brace Use by Athletes *Pediatrics* 1990;85:228

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/85/2/228>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 345 Park Avenue, Itasca, Illinois, 60143. Copyright © 1990 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®

