

Committee on Pediatric Aspects of Physical Fitness, Recreation,  
and Sports

## Injuries to Young Athletes

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Numerous factors must be considered in protecting the health of athletes. Of fundamental importance to physicians are (1) the preparticipation medical examination for authorization to enter a sports program, and (2) the prevention, recognition, and treatment of injuries incurred in sports. The purpose of this statement is to call attention to the subject of sports injuries so that pediatricians can take measures to protect their young patients and set up a system for diagnosing and treating athletic injuries.

Young athletes present special problems that are perhaps more familiar to pediatricians than to other physicians and supervisors of sports programs:

1. Their strength is not proportional to their size, resulting in wide differences in physical performance of individuals of the same age.
2. Young athletes are impatient about restrictions on activities, even when restrictions are necessary for the diagnosis and the healing of injuries.
3. Flexible ligamentous structures and open epiphyses result in susceptibility to musculoskeletal injuries that should have prompt evaluation and treatment.
4. Some children and adolescents have unrecognized congenital conditions that make them more susceptible to athletic injuries.
5. Young athletes usually lack motivation to work hard to condition their bodies for endurance, strength, and acclimatization to heat.
6. Many young athletes are disinterested and indifferent about the fitting, adjustment, and care of their protective equipment.
7. Young athletes in sports programs sponsored by schools or community agencies rarely have the benefit of supervision and advice from a qualified athletic trainer. The duties of an athletic trainer are

usually assumed by a coach or parents, or by a physician who at times may be available only by telephone. If certified athletic trainers were universally available to oversee the health of young athletes, many worrisome problems would be alleviated.

### INCIDENCE OF INJURIES

The incidence of injuries among preadolescent and adolescent athletes has not been as well documented as among participants at college and professional levels. However, there are reports and statistics about the kinds of major and minor injuries that occur in high school athletes.<sup>1-9</sup> The quality of reporting of athletic injuries improved after publication of *Standard Nomenclature of Athletic Injuries* by the American Medical Association in 1966<sup>10</sup> and after the establishment in 1974 of the National Athletic Injury/Illness Reporting System (NAIRS) (Pennsylvania State College, University Park, PA 16802), a national surveillance service for following and analyzing epidemiologically the health problems occurring in organized sports.<sup>11</sup>

Fortunately, fatalities and permanent handicaps from injuries to young athletes are rare. However, it frequently is necessary to decide whether an injury is serious, with potential lasting effects, or is only a "near miss," which will heal in a short time with proper management. The possibility of fatal or incapacitating results must be kept in mind until an exact diagnosis has been made of every injury.<sup>12</sup>

Most medical emergencies occur in sports in which collisions and vigorous body contact are factors. Injuries occur most frequently in football, wrestling, basketball, ice hockey, lacrosse, and boys' or girls' volleyball. Many injuries are preventable because they are caused by inferior protective equipment, inexperienced or ill-advised coaching, infractions of rules, incompetent officiating, or insufficient physical conditioning. Regardless of the

preventive measures taken, some injuries are inevitable because of the nature of most sports. Thus, optimum safeguards for young athletes must include attention to prompt recognition, assessment, and treatment of any injury or illness.

## RECOMMENDATIONS

The Committee recognizes that not every sports event for young athletes will be conducted under optimal conditions. However, the Committee feels that the following recommendations should be implemented when and wherever possible:

1. Medical care must be readily available. If a physician or athletic trainer cannot be at the site, one should be on call for advice and prompt attention when needed.

2. Preparation for the care of injuries should be planned and implemented in advance of the first practice session. Medical and other emergency materials should be at the field, court, pool, and rink, or in the locker room.

3. The physician and/or athletic trainer must have the authority to make decisions about the management of medical conditions and about resumption of play after an injury has occurred.

4. Management of injuries should always be based on sound medical judgment and practice, not expediency. No concessions should be made in this regard, even though pressures for making exceptions to borderline decisions are frequently placed on physicians and athletic trainers.

5. Although tradition excludes the team physician from the playing field until summoned, this custom should not apply to young athletes. Immediate care and prompt diagnosis are extremely important, particularly for injuries that would result in a fatality or a permanent handicap if activity or any further participation were permitted. It is especially important for the physician to have an opportunity to listen to the injured athlete, other players, and officials to learn how the injury occurred before the athlete is transported from the playing area.

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