

A photograph of a baseball player in a white pinstriped uniform sliding into a base. The player is wearing a red helmet and is in a dynamic, low-to-the-ground position. The background is a blurred green field. The text is overlaid on the right side of the image.

Concepts of Athletic Training

**FIFTH
EDITION**

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Chapter 1

The Concept of Sports Injury

Sports Participation



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- Since its passing, female sports participation increased by 700%.
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General Injury Data

According to a Pennsylvania study, rates of athletic injuries among of high school students were:

- Football – %
- Boys' basketball – %
- Wrestling – %
- Girls basketball – %



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General Injury Data (continued)

In a two-year study of a community sports program, children participating in soccer had the highest rate of injury, followed by baseball, football, and softball.

Definition of Sports Injury



- The majority of today's definitions use “_____” criteria as the major determinant.

NCAA Definition of Sports Injury

Sports Injury:



Acute Injuries

Acute Injury –

- Acute injuries typically involve significant trauma followed by pain, swelling, and loss of function.

Critical Force –

Chronic Injuries

Chronic Injury –

- Chronic injuries develop over time and are often associated with repetitive, cyclic activities, such as running.
- These injuries are commonly called _____ . Common sites include the _____ .
_____ .

Overuse Injuries

- Overuse injuries may be caused by:

1. *Intrinsic Factors* –

2. *Extrinsic Factors* –

Types of Tissues

Soft Tissues

Skeletal Tissue

Catastrophic Injury

Catastrophic Injuries:

-
- Can be life threatening or cause permanent damage.
- Can occur as a _____ or _____ result of sports participation.

Injury Classifications

Sprains are _____.

- First-degree:
- Second-degree:
- Third-degree:

Injury Classifications

Strains are _____
_____.

- First-degree strain:
- Second-degree strain:
- Third-degree strain:

Injury Classifications

Contusions are commonly referred to as “bruises.”

-
- Contusions are associated
- May result in _____
a bonelike formation within the muscle tissue

Skeletal Tissue Injuries

Fractures are _____.

Types of Fractures

-
-
-
-

Dislocations

Dislocation –

Subluxation:

Luxation:

-

Injury Recognition

Coach's role:

-
-
-

Schools or sponsoring agencies should make every effort to hire a BOC-Certified Athletic Trainer.

Epidemiology of Sports Injuries

- Epidemiology –
- Scientific sports injury research is a relatively recent trend.

Epidemiology of Sports Injuries

Sports injury epidemiology involves:

- Hypotheses are developed to test for statistical relationships between risk factors and injury.

Classification of Sports

American Academy of Pediatrics has developed categories of sports based on risk of injury.

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-
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Extent of Injuries: Tackle Football

- 25.5 injuries for every 100 players with the highest rate of injury occurring during games.
-
-
- 2.4% of injuries required surgery, and of those 59.4% involved the knee.

Extent of Injuries: Tackle Football

- Contusions, strains, sprains, and fractures are common injuries.
-
- Older players have higher risk than younger ones.
-

Extent of Injuries: Basketball

-
- Girls have higher risk of knee injuries than boys and are more likely to require surgery.
- The rate of ACL injury during games was 3 times higher for women than men.



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Extent of Injuries: Baseball

In 2004, over _____ high school boys participated.
Nearly 12% sustained injuries.



Of these injuries, most were strains or sprains.



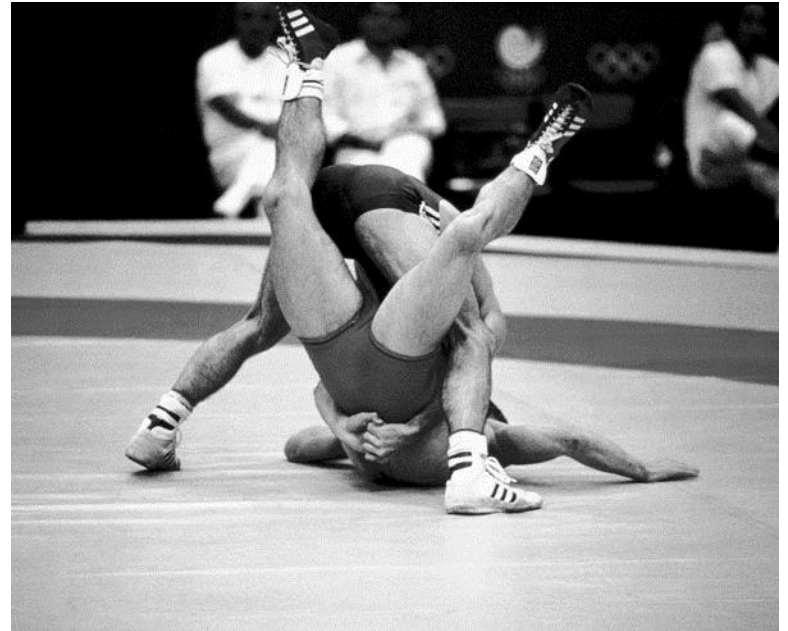
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Extent of Injuries: Baseball

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- **Little League Elbow –**
 - Sidearm pitching presents the greatest risk for elbow problems.

Extent of Injuries: Wrestling

- In 2004, there were over _____ high school participants.
 - About 27% sustained injuries.



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Extent of Injuries: Wrestling

-
- Most of these injuries were strains & sprains.
-

Extent of Injuries: Volleyball

- During 2004, nearly _____ high school girls participated.
- Nearly 15% suffered injury, mostly sprains.
-

Extent of Injuries: Soccer

In the United States, there are _____ million participants under 18 years of age.

During the 2002 season almost:

- 340,000 high school boys participated.
- 300,000 high school girls participated.

Extent of Injuries: Soccer (cont.)

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- accounting for about 60% of total injuries.
- Female athletes have a higher ratio of knee, specifically ACL, injuries than male athletes.
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