

Injuries in Youth Sports



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CDC Interest in Sports Safety

- Physical activity for mental and physical health
- Inactivity increases risk for diabetes, high blood pressure, high cholesterol, asthma, arthritis, poor health status, premature death
- Sports, Recreation and Exercise are important means of physical activity
- Injuries are a leading reason that participants cease exercise activities
- High number of injuries among youth with the potential for long term effects

Current Public Health Issues

- Physical Activity
 - 18% of HS students get 60 min/day
 - 23% of HS students did not get 60 min of physical activity any day in a week
- Obesity
 - 17% of children and adolescents are obese
 - triple from one generation ago
- Diabetes
 - 7% of those 12-19 years of age have impaired fasting glucose (pre-diabetes)

Medically-Attended Injuries

- 4.5 million injuries from sports/rec among those 5-24 years
- 68% males, twice the rate for females
- 17% were traumatic brain injuries (TBI)
- Location: 31% sports facility, 20% school
- 20% of injured lost at least one school day

Emergency Department Visits

- 2.4 million injury visits from sports/recreation among those 5-18 years
- 29% of all unintentional injury visits
- Highest rates in ages 10-14 years
- 48% of sports/recreation injuries that require hospitalization or transfer are 5-18 years

Emergency Department Visits for Traumatic Brain Injuries

Among those 5-18 years:

- 135,000 visits for sports/recreation TBI
- 65% of visits for sports/recreation TBI
- Highest rates among boys & girls:10-14 yrs
- 8% are hospitalized or transferred
- TBI are 18% of sports/recreation hospitalizations
- No participation information
 - No comparisons across activities, sexes, ages, years

High School Sports Injuries

CENTER FOR INJURY RESEARCH AND POLICY

The Research Institute at Nationwide Children's Hospital

- Sample of 100 HS by geography & size
- Provides national estimates for 9 sports
- 1.4 million time-loss injuries
- 2.4 per 1,000 exposures (football 4.4)
- No difference between boys & girls
- 9,000 time-loss heat illnesses
- 66% in August; 70% in football

<http://injuryresearch.net/highschoolrio.aspx>

Comstock et.al., *MMWR* 2006; Gilchrist et.al., *MMWR* 2010

Strategies for Prevention

HOST

Education/Behavior Change

Use of protective equipment
Player education
Training/conditioning/warm-up
Rehabilitation after injury
Awareness of hazards

Engineering/Technology

Design/modification of:
-Sports equipment
-Shoes/clothing
-Protective equipment
-Playing surfaces

Policies/Enforcement

Sociocultural

Parental expectations
Guidelines for play
Equipment requirements
Rule
School/org policies
Legislation

Physical environment

Surface requirements
First aid equipment/training
Hospital access/transport
Practice conditions

VECTOR (VEHICLE)

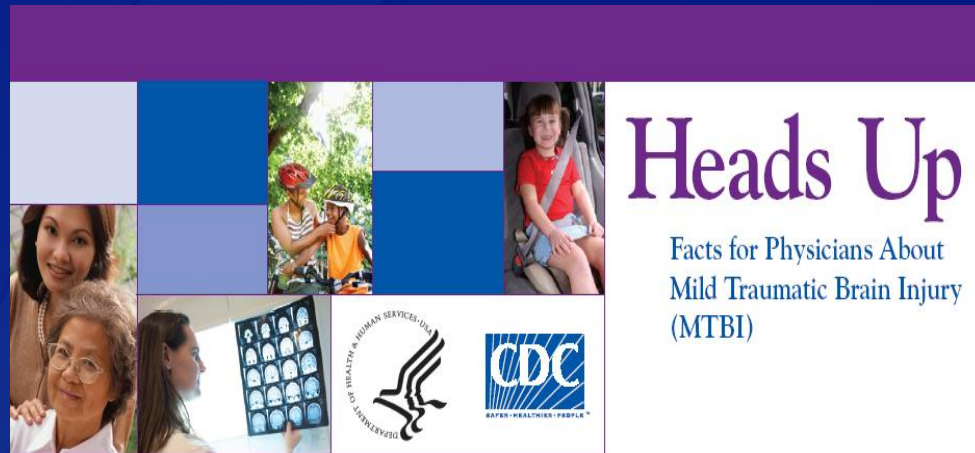
ENVIRONMENT

CDC's "Heads Up" Initiatives

*Helping to Improve Prevention, Recognition,
and Response to Concussion*

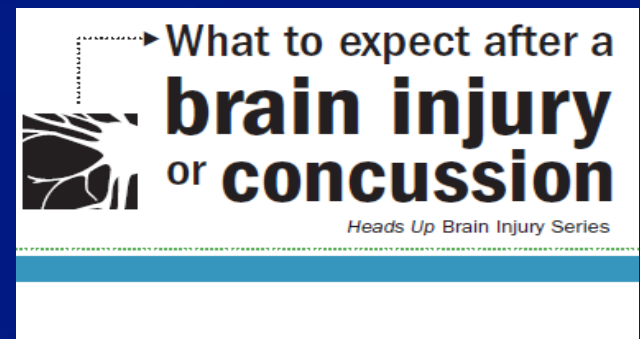
Heads Up: Brain Injury in Your Practice including
Acute Concussion Evaluation (ACE) Management

Heads Up to Clinicians: Updated Adult MTBI Guidelines
(working on Guidelines for Pediatrics)



Heads Up

Facts for Physicians About
Mild Traumatic Brain Injury
(MTBI)



www.cdc.gov/Concussion

CDC's "Heads Up" Initiatives

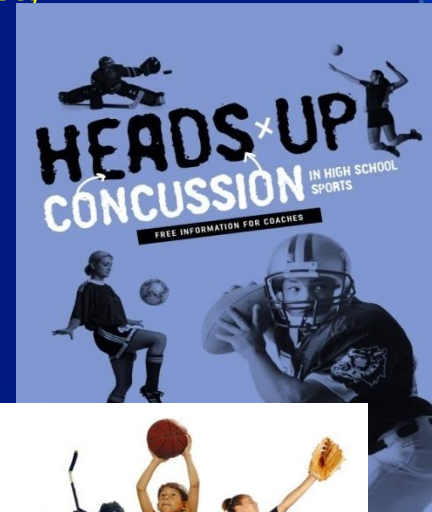
*Helping to Improve Prevention, Recognition,
and Response to Concussion*

Heads Up: Concussion in High School Sports

Heads Up: Concussion in Youth Sports

Heads Up to Schools: Know Your
Concussion ABC's

Heads Up: On-line Concussion Training for
Coaches



**Heads Up to Schools:
KNOW YOUR
CONCUSSION
ABCs**

Assess the situation	Be alert for signs and symptoms	Contact a health care professional
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**HEADS UP
CONCUSSION
IN YOUTH SPORTS**

**TAKE THE FREE
ONLINE CONCUSSION
TRAINING
for Coaches**

CDC
DEPARTMENT OF HEALTH & HUMAN SERVICES

www.cdc.gov/Concussion

Additional Efforts



- NFL:
 - PSA www.nfl.com/videos (search: concussion safety)
 - Information to players
www.cdc.gov/concussion/sports/nfl_poster.html
 - Efforts to reach youth players
- NCAA: posters, materials, video
web1.ncaa.org/web_video/health_and_safety/concussion/concussion.html
- NFHS: on-line training
 - www.nfhs.org (look for Concussion in Sports) >100,000 trained
- Other sports and medical organizations

Summary

- Benefits of physical activity vastly outweigh any risks of injury
- Sports injuries are common, often preventable
- Injuries can result in disability or long-term consequences/barriers
- Although there is much we don't know, we must find ways to implement what we do
- We can extend reach of efforts through collaborations

Thank You



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“The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.”