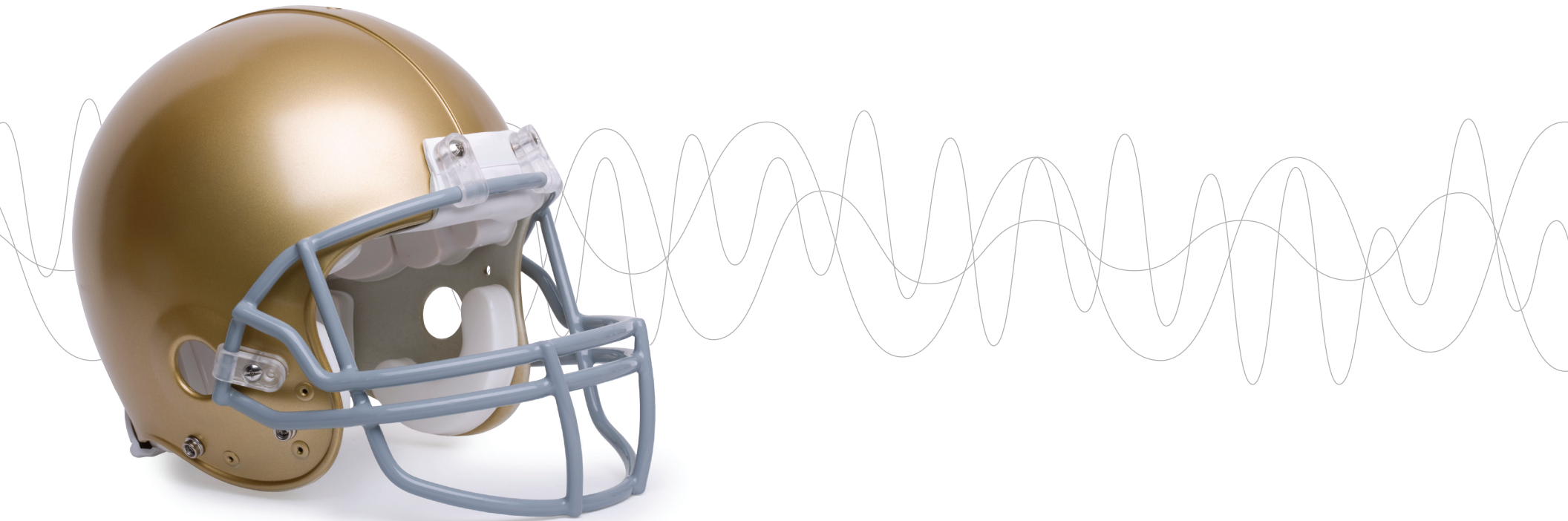


Playing Football

What every coach and parent should know



DR. SANDRA BOND CHAPMAN, *Founder and Chief Director*
DR. LORI COOK, *Director of Pediatric Brain Injury Programs*

www.CenterforBrainHealth.org

CENTER FOR
Brain Health[®]
THE UNIVERSITY OF TEXAS AT DALLAS

The benefits of youth football to health and well-being exceed the risk of permanent brain injury.

In most cases, concussions can be treated, and cognitive function can be regained.

***Myth:* Brain damage is always permanent**

"A concussion, a typically mild and common type of brain injury, usually results in only temporary disruption of brain functions as long as there is adequate recovery time and no repeated injury. Even after more serious brain injury...research indicates that—especially with the help of therapy—the brain may be capable of developing new connections and 'reroute' function through healthy areas."

Source: www.brainfacts.org/Diseases-Disorders/Injury/Articles/2011/Brain-damage-is-always-permanent

What science says about concussions

In the last 5 years, scientists have proven that engaging in brain training can build resilience and achieve brain regeneration after injury.

In most cases, an individual will fully recover after a concussion given proper management, therapy and time to heal. Monitoring cognitive and emotional symptoms annually is key to addressing any later-emerging deficits. Having a clear process for handling concussions increases the likelihood of recovery and improvement.

View Guidelines for Treating Concussions on page 5 of this brochure.

Key facts about brain injuries

A concussion is a mild injury to the brain; most often the damage is not permanent. Early recognition is crucial to prevent further injury and ensure the best course of treatment.

Five to 10 percent of athletes will experience a concussion in any given sport season.* The risk of suffering a concussion exists in most activities. Falls, not sports, are the leading causes of concussions.† Motor-vehicle collisions cause more severe injuries than concussions suffered in football.

Concussion prevention and care have improved significantly thanks to scientific advancements, heightened awareness and more stringent return-to-play guidelines.

Participating in football and other team sports provides important emotional and academic benefits that can build a healthy foundation for life.‡

* www.concussiontreatment.com/concussionfacts.html;

† www.cdc.gov/traumaticbraininjury/causes.html;

‡ www.iahsaa.org/resource_center/Academic_Assistance/Benefits_Sports.htm

The Science of Youth's Developing Brain

Twelve- to 25-year-olds are the most vulnerable to risk-taking behaviors. Addictions developed during these years are far more difficult to break than addictions developed later in life. For example, 80 percent of adult smokers become addicted to nicotine by age 18.

From the ages of 12 to 25, the brain is in a rapidly developing state. The emotional brain and the brain's frontal lobes, the source of control and reason, are immature and often prevent young people from making wise choices and saying no to risky behaviors, especially in emotionally charged contexts.

An unbalanced dopamine system leaves adolescents with a sense of low self-worth regardless of their talent and achievement. Adolescents then offset this sense through thrill-seeking behaviors which set up a vicious cycle that increases dopamine in the brain's reward system. Once stimulated, the adolescent is motivated to seek more and more addictive risk/reward-seeking behaviors.

Playing football and other sports provide rich and proven opportunities that:

- Inspire youth to embrace and optimize their emerging potential
- Prevent and mitigate risks of lifelong addictions to nicotine, alcohol and drugs
- Ward off depression by increasing dopamine through thrills of camaraderie and jointly shared purpose
- Expose young people to healthy role models, such as coaches and mentors outside the family circle
- Strengthen a committed connection to schoolwork and activities
- Reduce addiction to gaming technology
- Provide regular exercise to stay physically and mentally fit while elevating mood
- Strengthen cooperation, social cognition and friendship skills
- Build leadership skills through actions and empathy
- Maintain better sleep habits at a time of life when the sleep cycle is disturbed and more sleep is required

GUIDELINES *for* TREATING CONCUSSIONS

Having a clear process for handling concussions increases the likelihood of recovery and improvement. Some guidelines are below. Guidelines are listed on the CDC website at www.cdc.gov/concussion/HeadsUp.

- A. Treat brain injuries with the same care you would treat other serious injuries. A player who breaks an ankle would not be sent out to play the next day.
- B. After an injury, have the player immediately see a qualified medical professional—preferably a neurologist with experience in concussions—for diagnosis and treatment.
- C. Remove the player from play until symptoms have disappeared.
- D. Restrict the player from strenuous activity and weightlifting.
- E. Remove the player from complex mental activity, such as school work and tests, for 1 to 3 weeks, with gradual return depending on the individual’s rate of recovery.
- F. Restrict use of screens—computer, phone, video games and texting—for approximately 3 weeks; these can delay the brain’s healing process.
- G. Keep the player from driving while symptomatic.
- H. Limit the player’s intake of caffeinated drinks.
- I. As symptoms improve, make incremental academic adjustments with a gradual “return to learn.”

BEST PRACTICES

- Prior to starting play each season, establish baseline cognitive performance so that if a player is injured, there will be a clear target for recovery.
- At the end of regular-season play, comprehensively reassess cognitive performance to determine whether the player maintained his or her baseline performance.
- Monitor cognitive and emotional symptoms annually, even if the player has recovered, to immediately address any later-emerging deficits.

Note: If the concussion symptoms have not been alleviated after 3 weeks of rest, specialists should be consulted to determine next steps and therapy to achieve better recovery.