



TREATING CONCUSSIONS SERIOUSLY

ImPact technology helps professionals know when it's safe for athletes to return to the field



By:
G. Brett Western, MD
Sports Medicine
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Each year, approximately 300,000 young athletes will experience a sports-related concussion, and more than half of all high school football players will sustain a concussion before the end of their senior year. To best treat what can be a serious condition, AthletiCare™ professionals use ImPact™ concussion management software to ensure the safety of athletes before sending them back to play.

A concussion is any alteration of mental function following a blow to the head and can happen without any loss of consciousness. Any concussion, no matter how seemingly insignificant, can have long-term consequences.

Some of the long-term effects of post concussion syndrome includes chronic

headache, depression, sleep disruption, fatigue and poor academic performance.

There is another potential complication of concussion, second impact syndrome, that although rare results in death nearly 100 percent of the time. Second impact syndrome can occur if an athlete returns to play too soon before fully recovering from a concussion.

At AthletiCare, we utilize ImPact concussion management software to help determine when it is safe to allow an athlete to return to sports.

In the past, medical providers relied on the athlete to report the symptoms they were experiencing and followed guidelines that were not based on scientific study. The ImPact test is a computerized assessment of verbal memory, visual memory, reaction time and visual motor speed. When used in conjunction with a specific neurologic examination, ImPact allows medical providers to make more objective decisions.

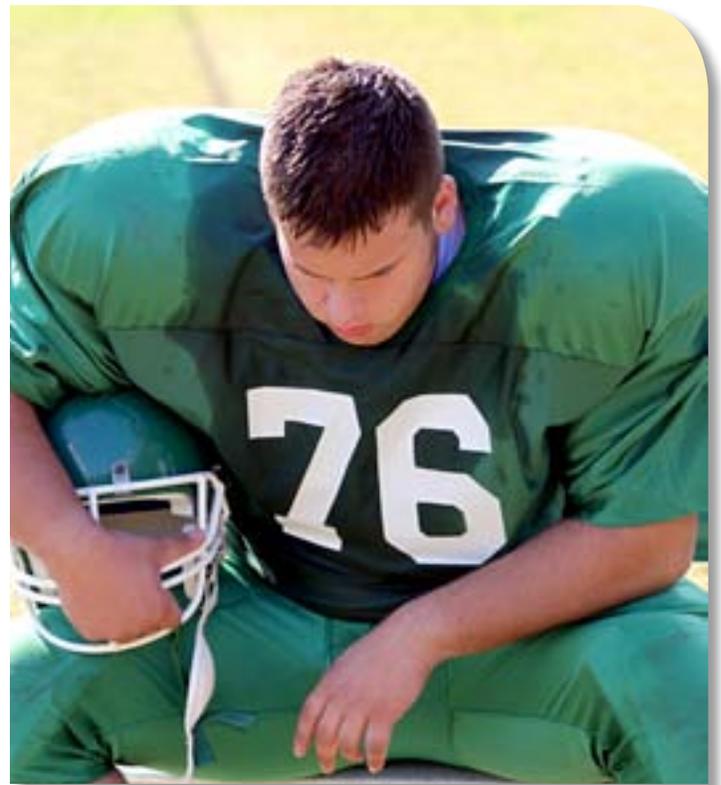
G. Brett Western, MD, and Rishi Sharma, MD, are non-operative sports medicine physicians at AthletiCare who are trained in evaluating athletes and their ImPact tests in order to return them to sport quickly and safely.

Any area school can have its athletes participating in contact sports take a pre-

season baseline test every two years. If an athlete sustains a concussion, he or she is re-tested. The athlete's scores then will be compared to the baseline test, as well as to national norms for his or her age. Depending on what deficiencies are found, recommendations for treatment are made by the physician.

Although not all athletes who sustain a concussion will have had a baseline test done, they should still be evaluated with an ImPact test and by a physician comfortable treating concussions.

For more information about ImPact, visit us at www.athleticare.com.



Proper treatment of concussion can prevent serious injury, or even death. Since concussions are a frequent injury for young athletes, the staff at AthletiCare uses the most up-to-date technology and techniques.

Heat illnesses

WHAT ARE THEY? HOW CAN THEY BE AVOIDED?

By: Jessica Ball, ATC

One of the main obstacles athletes face at this time of the year is practicing and playing in hot and humid weather. During this type of weather, athletes are at risk for the following heat illnesses:

Heat Stroke

A serious life-threatening condition with unknown specific cause. It is characterized by a sudden onset of loss of consciousness, flushed hot skin, minimal sweating, shallow breathing, disorientation, strong rapid pulse and a rapid rise in temperature to 104°F. Heat stroke is a medical emergency, and any treatment delay could be fatal. If you or anyone you are with experience these symptoms, obtain medical care as soon as possible.

Heat Exhaustion

A result of inadequate fluid replacement. It is characterized by profuse sweating, pale skin, mildly elevated temperature, dizziness, heat cramps, hyperventilation, decrease in performance and a rapid pulse. Core temperature will be about 102°F. Immediate treatment includes fluid ingestion and placing the individual in a cool environment. Obtain medical care as soon as possible.

Heat Cramps

Extremely painful muscle spasms in the abdominals or extremities due to excessive water loss and electrolyte imbalance. These can be prevented by consuming extra fluids and maintaining electrolytes. Treat heat cramps with fluid replacement and light stretching with ice massage.

Heat Syncope

Associated with rapid fatigue and over exposure. Heat syncope is caused by pooling of blood in the extremities resulting in dizziness and fainting. It can be treated by placing an athlete in a cool environment, consuming fluids and lying down.



The good news

All of these heat illnesses are preventable. Remember to consume fluids and stay cool. Generally 50 percent of fluid is never replaced and should be replaced before, during and after exercise. Do not ignore thirst. If it is ignored, dehydration can cause nausea, vomiting, fainting and increases the risk for heat illness.

Be sure to gradually acclimatize yourself to exercising in the heat. Early

pre-season training and graded intensity changes are recommended with progressive exposure over a seven- to 10-day period.

Finally, while all athletes are risk for heat illness, those who are overweight, have large muscle mass and/or a history of heat illness are more susceptible.

Always remember, any death from a heat illness is completely preventable. Be smart and don't become a victim of the heat and humidity.



MEET
Jessica Ball, ATC

Certified Athletic Trainer Jessica Ball joined AthletiCare at St. Francis Hospital in August 2010. She primarily works with Litchfield High School athletes, but also checks on athletes at

Mt. Olive and Gillespie high schools.

Before starting in Litchfield, she worked PRN for AthletiCare in Springfield, covering mostly Benedictine University's athletic events.

Jessica is a 1999 graduate of Chatham Glenwood High School where she competed in softball and basketball. She graduated from Eastern Illinois University (EIU) in 2003 with a bachelor's degree in physical education and a minor in health studies.

After teaching and coaching for a few years, Jessica went back to EIU and received her second bachelors degree in sports medicine in 2008.

While at EIU, Jessica played for the first Women's Division I Rugby program in the nation.

In April 2011, she was certified as a Sportsmetrics™ instructor through the Cincinnati SportsMedicine Research and Education Foundation.

Dealing with incontinence

By: Terri Gustafson, PT

Urinary incontinence, as defined by the International Continence Society, is a condition in which involuntary loss of urine is a social or hygienic problem. It's not a subject anyone wants to think about or talk about, but it affects 15 - 25 million Americans – and one of them may be you.

The bladder fills at a steady rate of 15 drops of urine per minute. The average bladder takes about three hours to fill. The bladder remains relaxed to fill and the muscle at the neck of the bladder remains contracted to store. These muscles are not under voluntary control, but the pelvic floor muscles, which provide support to the pelvic organs and sphincter the urethra (the structure that carries urine from the body) are under voluntary control. If the pelvic floor muscles are kept tight, a message is sent to the bladder to not empty. If the pelvic floor muscles relax, a message is sent to the bladder to empty. Sometimes, however, things don't always go as planned.

The most common types of incontinence are stress incontinence, urge incontinence and mixed incontinence. Stress incontinence is the loss of urine when pressure (or stress) is exerted on the bladder by coughing, sneezing, laughing, exercising or lifting something

heavy. It occurs when sphincter muscles of the bladder and urethra are weakened. Physical changes in women after pregnancy, childbirth and menopause can cause this type of incontinence. In men it can be caused by removal of the prostate.

Urge incontinence is a sudden, intense urge to urinate followed by an involuntary loss of urine. This is a problem of the bladder rather than a problem with the pelvic floor. With this type of incontinence, you likely leak urine on the way to the bathroom. Often a need to urinate is triggered when you are near a bathroom whether your bladder is full or not. Mixed incontinence is having the symptoms of more than one type.

The treatment for incontinence depends on the type that you have, the severity of the problem and the underlying causes. Treatment options include behavioral techniques and lifestyle changes (You learned continence once, it may just be a matter of learning again.) and pelvic floor muscle exercises commonly known as Kegal exercises. A Kegal exercise is done by tightening the muscles you would use to stop urine flow. Physical therapists (PTs) trained in the treatment of incontinence can help you with behavioral techniques and a pelvic floor



exercise program. They also use bio-feedback and electrical stimulation to help with improving pelvic floor muscle recruitment, strength, endurance, and control. A PT can help you learn to use your pelvic floor muscles effectively again and retrain your bladder to improve your incontinence symptoms.

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