

EXCERPT FROM:

Leading the Way to Recovery

By David Bertone, PT, DPT, OCS

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The epidemic that is concussion in sports continues to affect many of us and has trickled down from the professional and college fields to the youth sports that many of us played. The majority of physical therapists will not have the opportunity to work with the post-concussed professional or collegiate athlete, but all of us can positively affect the incidence of concussion in youth sports leagues through education, comprehensive baseline concussion testing, and post-concussion management as rehabilitation specialists. The technologies available to us in this area of practice continues to grow and evolve.

Building a Concussion Management Program

Developing a comprehensive concussion management program for a clinic begins with the foundation of baseline testing and offering it to underserved youth sports leagues. This begins to build community relationships and solidify a therapist's expertise in the area of concussion management. The latest research shows that a baseline testing program should include assessment of multiple systems affected by a head injury to more accurately determine when an athlete is truly ready for return to play. The three components that my practice assesses in baseline testing are balance, oculomotor, and cognitive systems. The technologies available to test these areas are numerous.

The disintegration of the balance system after concussion is based on the research of numerous colleagues, including those by Kevin Guskiewicz, PhD, ATC, and his team at UNC Chapel Hill. Postural sway abnormalities can now be quantified using several technologies, including stationary, portable, and even iPhone applications. I use the Biodex Medical Systems BioSway unit, by Biodex Medical Systems Inc, Shirley, NY, for in-office and on-location baseline balance assessments

Biodex also makes a stationary model called the **Balance System SD** that has a dynamic platform for more sophisticated testing and vestibular training. With either unit, the clinician can perform a Modified Clinical Test for the Sensory Integration of Balance (mCTSIB). Both units are designed to test the sensory process by compromising the somatosensory, visual, and vestibular components used to control and then measure postural sway. This objective data can be compared to preinjury status after a concussion and can help determine when an athlete has returned to a preinjury level of postural sway control, which is commonly affected following a head injury. In addition, these units are frequently used in the clinic during post-concussion rehabilitation in training postural sway and challenging the vestibular and visual systems often affected by head trauma.

David Bertone, PT, DPT, OCS, is president and founder of db Orthopedic Physical Therapy, with locations in central New Jersey. He also created ConcussionRxcare, a specialized program offering baseline concussion testing, education and rehabilitation. As an adjunct professor at Rutgers, the State University of New Jersey, Bertone teaches DPT students about the physical therapy role in concussion management.

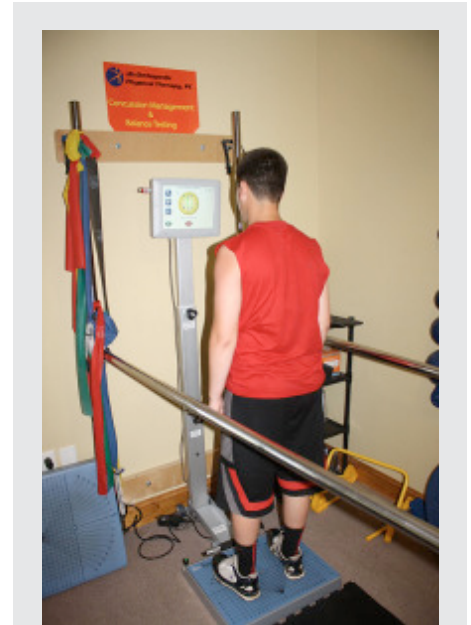


Figure 1. Biodex BioSway for baseline and post-injury postural sway determination and post-concussion rehabilitation.



Learn more from David Bertone, PT, DPT, OCS in person
Don't miss this opportunity to hear David Bertone present
his **Concussion in Youth Sports** program.

Location: Biodex Medical Systems, Inc.

Date: November 7, 2015

www.biodex.com/concussion-workshop