

Making Gains Against Concussion

Sports Medicine program adds technology and therapy to improve results for athletes



(from left) Sports Medicine specialist Steven Zonner, DO, and Sharmi Mukherjee, DPT, MPT, PT, director of outpatient physical therapy, use the EYE-SYNC virtual reality headset to assess patient Melissa Bray's progress in recovering from a concussion.

In recent years, the problem of sports-related concussions has attracted a lot of public concern. The fact is, our knowledge and understanding of concussion is still evolving.

Washington Hospital Healthcare System offers a full spectrum of care for sports-related concussions through the Sports Medicine specialists at Washington Township Medical Foundation (WTMF). Recently, the program expanded its capabilities by adding a unique assessment tool and developing a partnership with physical therapy at the Washington Outpatient Rehabilitation Center (WORC).

Fast, accurate diagnosis of concussion and tracking the progress of recovery have long been a challenge. Now, WTMF physicians are using a portable technology called EYE-SYNC to quickly identify and assess concussions and monitor recovery more accurately.

“EYE-SYNC is a virtual reality headset programmed to detect visual tracking abnormalities by measuring how well the eye synchronizes to a precisely moving target,” explains Steven Zonner, DO, WTMF Sports Medicine specialist. “It can quickly help identify whether a person has one of the two most common types of concussion — oculomotor or vestibular.”

An oculomotor concussion causes vision problems, while a vestibular concussion mainly affects the body's balance system, as well as vision. A thorough assessment and the right treatment plan are essential to successful recovery from concussion. With vestibular concussion, research has shown specific physical therapy exercises can improve the outcome.

Sharmi Mukherjee, PT, DPT, director of outpatient physical therapy at WORC, is skilled in creating customized treatment plans for dizziness and other balance issues related to vestibular concussion. Mukherjee and WTMF doctors often collaborate in treating athletes who have suffered this type of concussion.

Once a treatment plan has been developed, athletes work closely with physical therapists to track their progress. Physical therapists use the EYE-SYNC to monitor recovery by checking to see if there is improvement in the patient's ability to visually track the moving target.

Washington Hospital and WTMF doctors are committed to improving the diagnosis and treatment of concussions, with a special focus on young athletes in our community. Now, when the doctors serve as athletic trainers at local high school football games, the silver case containing the EYE-SYNC is often at their side on the field.