

HEALTHY ROSTER

WHAT ATHLETIC TRAINERS NEED TO KNOW ABOUT BASELINE CONCUSSION TESTING

NEW RESEARCH* shows why an athlete's own baseline can reveal changes that normative data may miss.

When evaluating an athlete after a suspected concussion, ATs have two potential points of comparison: the athlete's own preinjury baseline or normative data from other athletes.

Both can provide useful information. But new research using the Sway Sports+ test battery found that individualized baseline comparisons identified a greater percentage of concussed athletes with impaired performance than normative comparisons.

Why an individual baseline matters.

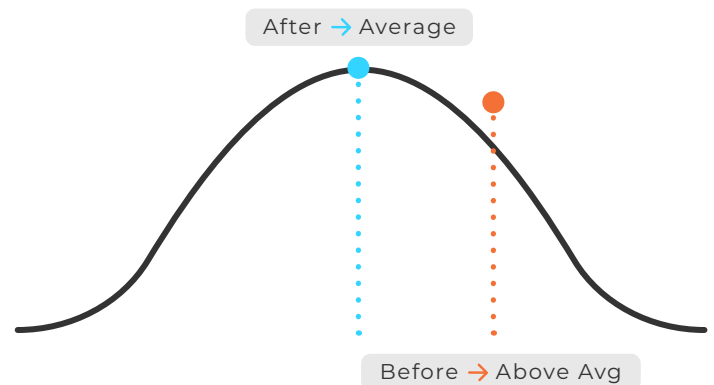
- **NORMATIVE DATA ANSWERS AN IMPORTANT QUESTION.**

How does this athlete compare to their peers?

- **A BASELINE ANSWERS A DIFFERENT ONE.**

How does this athlete compare to themselves before the injury?

- That distinction matters. An athlete who performs well above average before a concussion could experience a meaningful decline and still fall within the "normal" range compared with peers.



"Normal" for the group may not be normal for the individual.

What did the study examine?

↗ **10,920**

Collegiate athletes with baseline data

↗ **231**

Collegiate athletes with a clinically diagnosed concussion

↗ **Within 3 Days**

Post concussion testing window

Postconcussion Sway performance was compared two ways:



ATHLETE vs. THEMSELVES
Individual Baseline

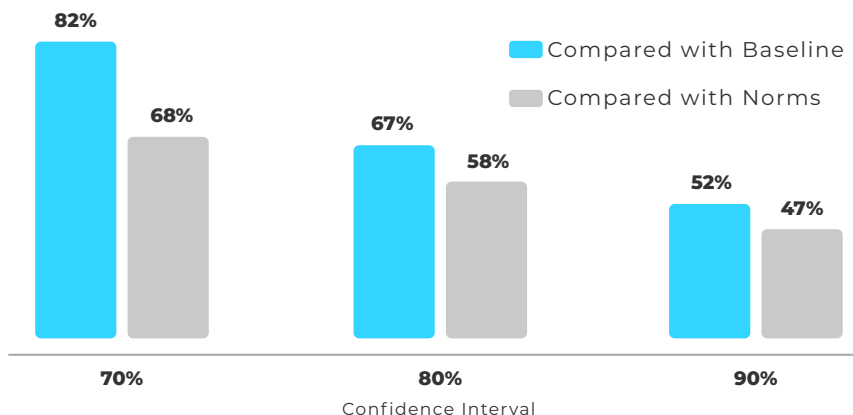


ATHLETE vs. PEERS
Normative Reference Data

What did researchers find?

Baseline comparisons identified more athletes with impairment.

When researchers looked for meaningful change across two Sway test modules, individualized baseline comparisons identified a greater percentage of concussed athletes as impaired at every confidence interval examined.



One abnormal score doesn't tell the whole story

The research also demonstrated why concussion assessment should consider multiple areas of performance.

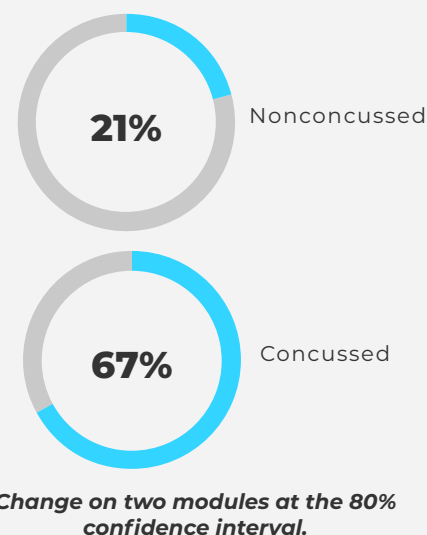
At the 80% confidence interval:

58% of nonconcussed athletes showed meaningful change on at least one test module during baseline retesting.

But meaningful change on two modules was much less common:

21% of nonconcussed athletes vs. 67% of concussed athletes

Concussed athletes were approximately 3× as likely to demonstrate change across two modules.



ANOTHER IMPORTANT DETAIL

Symptoms weren't driving these results.

Athletes completed symptom assessments, but symptom scores were intentionally excluded from the study's analysis.

The findings were based on Sway Concussion's objective balance and four cognitive measures.



Balance



Reaction Time



Impulse Control



Inspection Time



Memory

What should Athletic Trainers take away?

1. Baselines provide individualized context.

Normative data is useful, but an athlete's own baseline can reveal changes that comparison with peers may miss.

2. Look for patterns, not a single score.

Considering multiple areas of performance can help distinguish meaningful change from normal variability.

3. Objective data adds another piece to the assessment.

Balance and cognitive performance can provide valuable information alongside symptoms, clinical examination and professional judgment.

The bottom line Concussion is individual.

Baseline testing helps make the comparison individual, too.

ABOUT THE RESEARCH

Schatz P, Chikar J. Comparing Postconcussion Sway Balance and Cognitive Test Performance With Preinjury Baseline Identifies a Higher Percentage of Impaired Concussed Athletes Than Comparison With Normative Values. *Orthopaedic Journal of Sports Medicine*. 2026;14(7).

Study population: Collegiate athletes ages 18–22.

Important: Sway Concussion is an assessment aid and is not intended to independently diagnose concussion. Concussion diagnosis and management require evaluation by a qualified healthcare professional.