# UNEQUAL PROTECTS



### **On-Field and Lab Data**

## DATA SET 1 18 High School Teams Monitored. 48% Reduction in Concussions vs national HS concussion rate.

TX. Concussion rate among 1300 players using the Gyro was compared to the national HS concussion rate, which is 11.2 concussions per 10,000 AEs\*. Athletic Trainers monitored and noted head injuries that occurred during practice and games, as per a recent Texas state law. There was 100% compliance - all players wore the Unequal Gyro. With a total of Athletic Exposures for the season of 84,500 AEs, there were 49 concussions reported, which equates to 5.8 concussions per 10,000 AEs.

#### DATA SET 2

20 Youth Teams Monitored. Limited Pilot Study. 75% Reduction in Concussions vs national youth football concussion rate.

NJ, PA. Teams were selected at random by the league Commissioner. 371 players wore the Gyro 100% of the time. There were 4 concussions sustained, which is 1.1% of the players, equating to 3.4 concussions per 10,000 AEs. The accepted concussion rate in youth football is 4.3% (2014 stat). In this case among 371 players, that would have been 16 concussions or 13.5 concussions per 10,000 AEs.

\*Based on a recent study by Dr. Anthony Kontos, Assistant Research Director for the University of Pittsburgh Medical Center Sports Medicine Concussion Program.

### DATA SET 3 14 High School Teams Monitored. Intra-team results.

TX, IL, IA, GA, Canada. The concussion rate of 836 players on teams not wearing the Gyro was 9.4%. The concussion rate of 323 players on the same teams self-selected wearing the Gyro was 0.9%. Athletic Exposure data was not tracked.

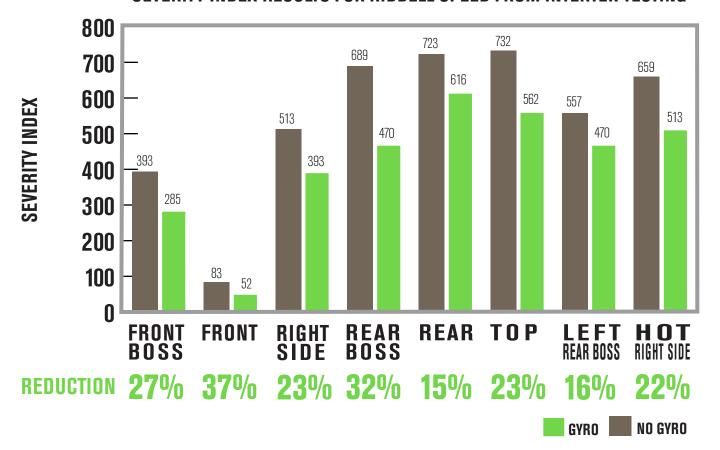
<sup>\*</sup>From recent study highlighted by the National Academy of Sciences in a 306 page NFL-funded report.

#### **Independent Lab Data**

The Unequal Gyro has proven its ability to reduce linear acceleration to the head. NOCSAE® (National Operating Committee on Standards for Athletic Equipment) uses a Severity Index formula in which Acceleration is a component. The lower the acceleration the lower the Severity Index. A correlation has been noted between reducing acceleration and how that predicts a lower incidence of concussions (see Virginia Tech studies).

Intertek, Inc., an ISO17025 accredited and independent impact-testing laboratory, tested the Gyro to standards set by the NOCSAE. In most cases, the testing reflected that both the severity indexes and peak acceleration of the helmet with Unequal were lower than that of the helmet alone. The tests indicated that Unequal reduces head acceleration in most cases. Severity Index was reduced as much as a 37%. Tests were conducted at Intertek Testing, Cortland, NY.

#### SEVERITY INDEX RESULTS FOR RIDDELL SPEED FROM INTERTEK TESTING\*



Virginia Tech References:

Virginia Tech: Rowson, S, and S.M. Duma. Brain Injury Prediction: Assessing the Combined Probability of Concussion Using Linear and Rotational Head Acceleration. Annals of Biomedical Engineering, Vol. 41, No. 5, May 2013 (2013) pp. 873–882 DOI: 10.1007/s10439-012-0731-0.

Virginia Tech: Rowson, S, and S.M. Duma. Development of the STAR Evaluation System for Football Helmets: Integrating Player Head Impact Exposure and Risk of Concussion. Annals of Biomedical Engineering, Vol. 39, No. 8, August 2011 (Ó 2011) pp. 2130–2140.

<sup>\*</sup>Disclaimer: No representation is made as to what will happen with any team or player. Each athletic experience is different. Any player in any sport can sustain a head injury with even the very best head protection. Unequal pads cannot prevent concussions or eliminate the risk of serious head or neck injuries. Results may vary depending on: helmet or pad type & style; sport / activity; contact surface; temperature; impact levels; linear & angular forces; helmet or pad manufacturer; and user's health. No helmet or pad, including Unequal Products, can prevent serious head, brain, body and/or neck injuries including paralysis or possibly death a person might incur while participating in any activity, game or sport.