

exos



HUMAN PERFORMANCE LAB

FOR ATHLETIC AND SPORTS FOOTWEAR BRANDS

Expand Your Capacity, Accelerate Innovation, Advance Your Business

**Exos is uniquely positioned
to collect
ground-truth data
around footwear/ turf
interactions during
sport-specific movements
at game speed.**

CLEAT & TURF Interaction Studies



Exos' Human Performance Lab provides the opportunity to unlock the secrets hidden within the dynamic interplay between footwear, body size, shape, performance, and movement quality.

We believe in empowering footwear and apparel companies with the data they need to design products that prioritize athlete performance and safety.

AN UNPRECEDENTED Partnership

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BIOCORE



Exos' instrumented outdoor turf with an array of 10 AMTI Optima force plates.

Access to diverse female and male elite athlete populations and full scope technology in a single location.



A team of experienced innovative research, biomechanic, and human performance partners.

Our combined **capabilities** unlock access to technology and real-world insights that are **no longer limited to the lab.**



THEN...



NOW...

The Right Movements

With gold standard tools and technology, we can capture full spectrum granular data across both indoor and outdoor spaces to capture the myriad of movements expressed in sport.

The Right Populations

Ideal athlete population, performance coaches, biomechanists, applied researchers, and analysts are a rare combination.

CLEAT & TURF Interaction Studies

Our tools and research capabilities provide valuable data that includes quantifiable metrics of biomechanical force, power, and efficiency that can support both product and athlete development. We have expertise across all sports and specific expertise on the female athlete.



FOOTWEAR MANUFACTURERS

- Sport specific targets for design
- Optimize performance of cleat patterns, stiffness, fit, etc.
- Athlete perception

Product
Development
Player Safety &
Welfare
Empower
Female
Athletes



CLUBS, COACHES, TRAINERS

- Incorporation into load management programs
- Session and season structuring

RESEARCH & INNOVATION Starts Here

Product Development and Brand Support

Bridge the gap from the lab to the field to design, validate and market data-backed products for enhanced athlete safety and welfare.

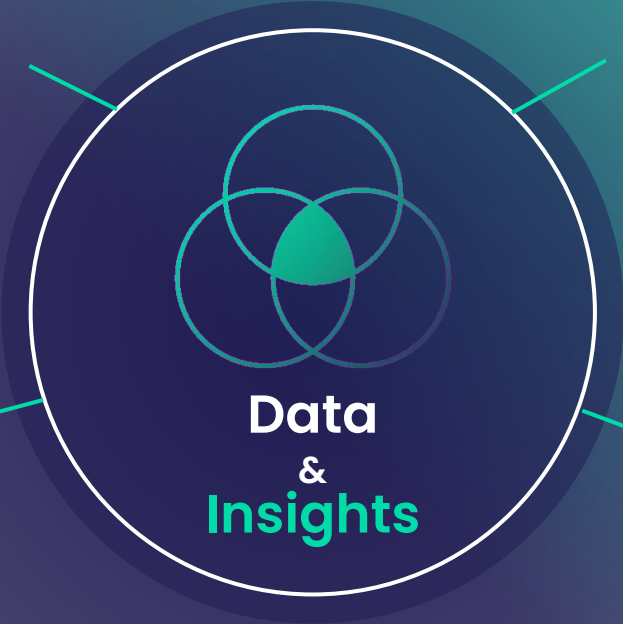
Cleat / Turf Interaction

Ground-truth kinetics data of how different cleats interact with the ground during game-speed movements.

Anthropometry and Performance Data

High-quality data for athletic footwear manufacturers to establish cleat design norms for athletes based on unique body composition, size, and performance needs.

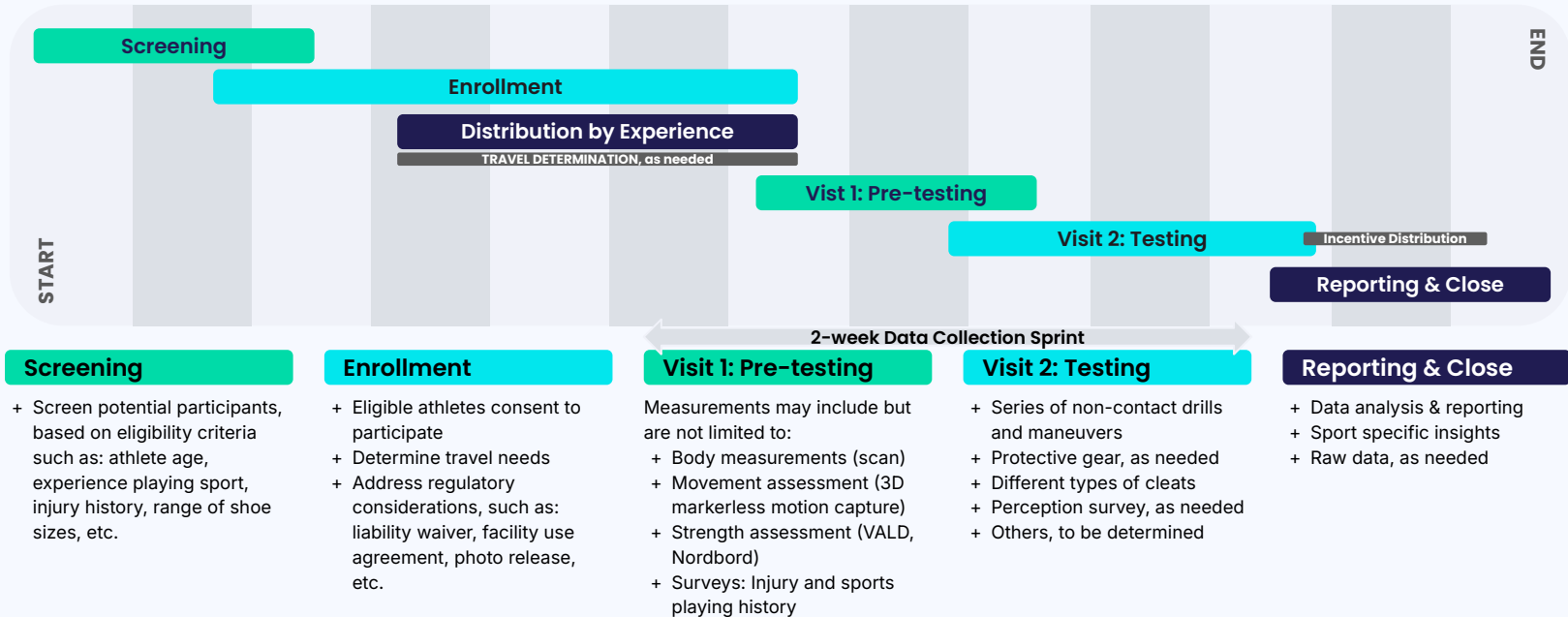
Data & Insights



Kinetics, Kinematics and Performance

Quantification of kinetics, kinematics and performance related to changes in body size, shape and composition, using embedded force plates and marker-based motion capture during sport-specific drills.

SAMPLE: Study Details



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ATHLETE FOOTWEAR OBSERVATION STUDY

Exos teams up
to tackle injury
prevention in
high performance
athletes.



THE CHALLENGE:

A deeper understanding of the loads players generate at full speed can be a critical unlock for training, injury prevention, footwear, and performance. Traditional in-lab settings offer limited capacity to capture high-resolution biomechanics data at game-like speeds.

THE SOLUTION:

Exos partnered with Biocore, Children's Hospital of Philadelphia, and the NFLPA to create a one-of-a-kind outdoor biomechanics laboratory with in-turf force plates. We quantified the biomechanics (motions, speeds, body loads) of NFL-like athletes at full speed, delivering real-world data to drive innovations in footwear design and athlete training programs.

SNAPSHOT OF RESULTS:

29

Elite Athletes Enrolled

62%

of participants were current
or former NFL athletes

30

Trials per athlete

2

Weeks of data collection

LET'S CONNECT

Expand research capacity, accelerate innovation, and enhance your footwear design.

HumanPerformanceLab@teamexos.com

Learn More >> TeamExos.com/Research

exos
gets

you
ready