



NEW RESEARCH INITIATIVE

Impact of advanced player profiling on injury risk assessment and injury prevention

You're Invited: Join our innovative experiment to examine the impact of improved screening methods on injury risk assessment and interventions on injury prevention.

We've been leading the way in injury risk analytics R&D, and are excited to create an all new, expansive research program exclusive to our partners.

Screening & Exercise Research Program Background

There is strong evidence today showing that load is only one area that is related to the complexity of assessing injury risk. Despite this, a lot of teams still focus most of their efforts on monitoring and managing external load, measured via GPS (1).

The current scientific and practical understanding of the injury risk assessment is that it is multifactorial; only models including information about the mechanism of injury, and spanning the entire spectrum of risk factors related to this mechanism may have the chance to be meaningful (e.g., players demographics, neuromuscular and mobility profile, injury history, overall load received and how they respond to it, specific context including travels and life style, etc).

As a part of the Performance Intelligence Research Initiative (PIRI) we are now launching a multi-center research project, aimed at improving our understanding about those risk factors.

Accordingly, interventions should likely focus not only on load management, but also on mitigating the other risk factors including player neuromuscular profiles (2).



Program Summary:

This is a season-long research program, exclusively offered to Kitman Labs customers, in which our research team will work one on one with teams to incorporate new screening and exercise techniques as appropriate for their environment.

During the course of the season, we will track injuries, and evaluate the impact of the screening on the effectiveness of injury risk analysis and, if you use them, the impact of the exercises on overall health outcomes.

Benefits of Participation in the Research Program

1. Identify new screening practices and/or exercises that can add value to your program
2. Better athlete profiling (stemming from the enhanced screening) leading to better individualization of interventions and exercise programs
3. Early access to study results and best practices
4. Expand your network of like-minded practitioners
5. The opportunity to be involved in any published research
6. The opportunity to be involved in thought leadership content and events with us and the other participants (podcasts, webinars, blogs, etc.)

How the Program Works

1. Online Program Introduction for anyone interested- July

This introductory webinar will introduce the research program and provide more details on its purpose, how it will work, and what we need from you.

2. In-person Workshop for those participating - late August

This introductory webinar will introduce the research program and provide more details on its purpose, how it will work, and what we need from you.

3. Determine Each Participant's Specific Engagement

The research team will meet with you individually to discuss your current screening practices and determine if any of the proposed test battery will be appropriate for your environment and approach.

We aim to have each team's context-specific screening defined before the beginning of the next season.

After determining the screening protocols best suited for you, we will profile some of your players and offer suggested exercise guidelines, based on your existing programs, to mitigate the risk that may have been highlighted from the screening.



4. Training on screening protocols and interventions

We will provide detailed instructions on the screening protocols and proposed exercises. The test battery will include, among others, specific measures of strength, range of motion and neuromuscular control. All information will be made available for reference on a participant-only webpage

5. In-season tracking and engagement

Using the Kitman Labs Platform, you will enter injury occurrences and exercise prescription compliance throughout the upcoming season

6. End of program analysis

At the end of the upcoming season we run different types of analyses, including:

1. How the advanced screening data affects the quality and performance of our/your analytic models
2. Comparing injury rates in club/players using the advanced screening/exercises approach or not, for those that implemented the exercise program.

Please let us know if you have further questions and we look forward to working together on this exciting project!

References

1. Impellizzeri FM, Tenan MS, Kempton T, Novak A, Coutts AJ. [Acute:Chronic Workload Ratio: Conceptual Issues and Fundamental Pitfalls](#). Int J Sports Physiol Perform. 2020 Jun 5:1-7. doi: 10.1123/ijsp.2019-0864. Online ahead of print. PMID: 32502973
2. Mendiguchia J, Martinez-Ruiz E, Edouard P, Morin JB, Martinez-Martinez F, Idoate F, Mendez-Villanueva A. [A Multifactorial, Criteria-based Progressive Algorithm for Hamstring Injury Treatment](#). Med Sci Sports Exerc. 2017 Jul;49(7):1482-1492. doi: 10.1249/MSS.0000000000001241. PMID: 28277402