Injury prevention & monitoring

by phyling

The first and only solution capable of estimating lower limbs fatigue and kinetics to reduce injury risk.

This football shoe is equipped with instrumented studs to measure ground reaction forces (GRF).

contact@phyling.fr

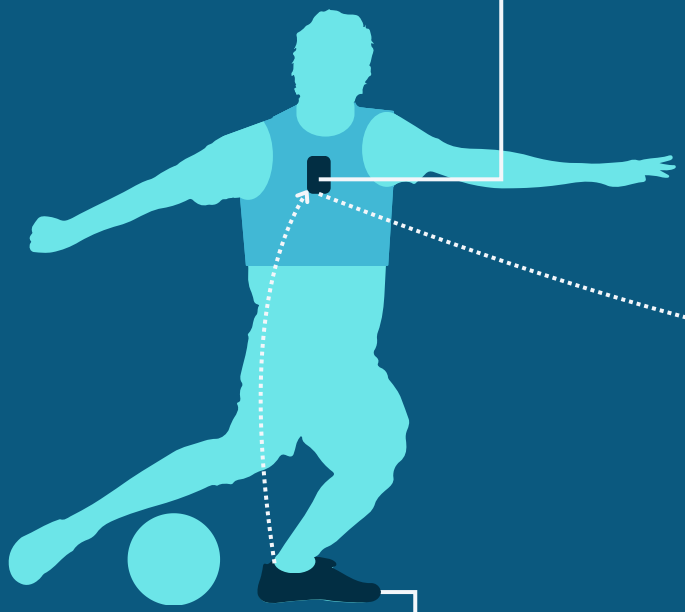
www.phyling.fr

A complete package

phyling

MaxiPhyling : GPS tracker & recording

GPS, IMU & data recording : everything is gathered in one module that has already been used buy elite athletes, especially in track cycling and rowing during the Tokyo 2021 & Paris 2024 Olympics to monitor athletes performances.



The Hub : analysis & monitoring

Data is retrieved and analyzed to compute more than 50 parameters indicative of the player's fatigue and injury risk. This data, recorded during each session, allows coaches to monitor each athlete individually and reuce their injury risk. This analyis comes from 3 years of research and a PhD in partnership with Université Paris Saclay.

STUD-e : the connected stud

This unique stud is the result of 6 years of research and 2 patents : it's equipped with force sensors (strain gauges) to precisely measure the force applied by the player.

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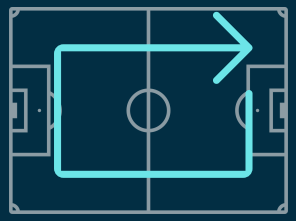
Easy-to-use

In only a couple of minutes, it is possible to monitor the level of fatigue during each session.



One lap around the pitch before and after training.

Fatigue Index is computed at each session (based on musculoskelettal load)

A complementary insight on players' fitness (in comparison with standard GPS trackers).

Monitoring of running kinetics and kinamtics parameters monitoring (asymetry, joint loads, cadence, etc.)

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Approved by research

université PARIS-SACLAY x phyling

Development of a football-specific methodology to assess mechanical load in football using instrumented studs: towards an injury prevention perspective

	1 Technology validation	2 On-field fatigue detection	3 Mechanical load estimation and monitoring among professional players
Methods	Compared to force platfom GRF	Running GRF parameters/patterns comparison between the beginning and the end of an constant velocity exhaustive run	Creation of an easy-to-use protocol to record on-field GRF before and after training.
Results	Excellent degree of agrreement between the instrumented studs and the force platform	Significant differences found among all subjects with high inter-subjects variability.	Pre/post comparison allows us to compute a fatigue index
Concusion	**It s possible to record on-field GRF with a great reliability using this tool**	**It is possible to detect and estimate fatigue directly on-field using theses studs.**	**The fatigue index brings supplementary informations and is more correlated to injury occurence.**

If you are interested, contact us via contact@phyling.fr

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