



Technology offer:

DESIGN AND ASSESSMENT OF INTERVENTIONS AND TECHNOLOGY TO PROMOTE HEALTH AND WELLBEING, MAXIMIZE SPORT SUCCESS AND PREVENT INJURIES

Background

A particularly important element in promotion of wellbeing and health, as well as maximizing success in sport and prevent injuries, is the implementation of different interventions and technological solutions into the daily life or sport training regimens. Selecting appropriate interventions for each individual or group is not a trivial process; therefore, careful design and thorough assessment of different solutions prior to the implementation is crucial for best effects. Our research and development knowledge on the field of sport science, sports medicine and healthcare enables us to provide technological solutions that target the abovementioned aspects, or to test the effects of the existing solutions (interventions or technology).

Field of use:

Health science, sport science, sports medicine

Current state of technology:

Developed, in use

Provided by:

Faculty of Health Sciences,
University of Primorska

Contact details:

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University of Primorska
Faculty of Health Sciences

<https://fvz.upr.si/>

Technology & Equipment

The laboratory of Faculty of Health Sciences, University of Primorska is equipped with modern hardware and software technology. The effects of different interventions and technology is assessed on a short- (e.g. during the use or shortly after) or long-term basis (e.g. the users are assessed before and after a longer interventional program). One aspect of our assessment is focused on the objective outcomes, including the biomechanics of movement and physiological responses. For this purpose, we use several golden standard devices (3D motion tracking system, several isometric and isokinetic dynamometers, force plates, photocell timing system, electromyography, near-infrared spectroscopy, cardio pulmonary exercise testing system, wearable multiparametric sensor etc.).

Moreover, a considerable emphasis is place on the subjective responses. The users are asked about (dis)comfort, perceived exertion, pain, stress and other aspect that are important to consider when assessing the potential of an intervention or a product to be effective.

As until now, we developed and tested exercises programs for prevention of hamstring injuries in athletes, protocol for treating anterior knee pain and tested several approaches for preventing and treating low back pain. We contributed to the development and end-user testing of spinal exoskeleton, and tested several therapeutical approaches, such as magnetic stimulation device and cayenne pepper cataplasms.

Main Advantages

- Use of up to date research approaches and procedures
- Assessment with scientifically proven golden standards
- Inclusion of subjective outcomes and user impressions



EVROPSKA UNIJA
EVROPSKI SKLAD ZA
REGIONALNI RAZVOJ



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA IZOBRAŽEVANJE,
ZNANOST IN ŠPORT

Operacijo delno financira Evropska unija iz Evropskega sklada za regionalni razvoj ter Ministrstvo za izobraževanje, znanost in šport, Republika Slovenija. Operacija se izvaja v okviru Operativnega programa za izvajanje evropske kohezijske politike v obdobju 2014-2020, prednostne osi 1 Krepitev raziskav, tehnološkega razvoja in inovacij.

V partnerstvu:

Univerza v Ljubljani



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FIS



Inštitut
"Jozef Stefan"



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