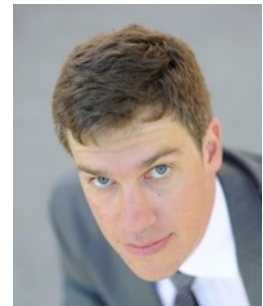


Abstract GLMS 17 December 2020, 15.00-16.00 PM

Lecturer: Jos Vanrenterghem, associate professor Faculty of Movement and Rehabilitation Sciences, Department of Rehabilitation Sciences, KU Leuven, Belgium



Title: Mechanotherapy in sport: turning movement into medicine

Performance enhancement in sport with an important physical component is mainly governed by the principle of supercompensation: you have to train hard to get fitter, but not too hard to avoid fatigue. In fact, not only does this matter from a physiological point of view, it also matters us from a biomechanical point of view. We need to expose the various components of our musculoskeletal system to the right amount of mechanical loads to get it stronger: denser bones, thicker cartilage, stiffer tendons, and of course, stronger muscles. In this lecture a framework will be created for the practical implementation of load management, mainly focusing on biomechanical loads. This framework can help trainers and coaches working with healthy athletes on the field, as well as physiotherapists working with an injured athlete off the field. In fact, all these professionals carefully monitor the mechanical loads that their athletes/patients are exposed to so that their musculoskeletal system adapts optimally for the demands of the sport. This is called mechanotherapy: movement is prescribed as if it were a medicine to stay healthy, or to get healthy again.