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***Dynamic Systems Rehabilitation***

“Dynamic systems” has surfaced as an important theoretical foundation for sport rehabilitation. The theory nowadays is fashionable and hip. But does this mean, there also is a good body of best practice to tap into, when designing rehab interventions? Unfortunately not.

Scientists have developed the theory into a large body of complex and impressive principles: synergies, manifolds, degeneracy, variability, minimum jerk and many more. The problem though with these achievements is, that as soon as it comes to implications for actual rehab, science still is vague and useless.

Key to this vagueness is the lack of classification of movement patterns and the understanding of what principles are applicable in what pattern. Findings in how we manipulate a teacup are happily transplanted to how hamstring should work in a running cycle. This overly generic approach obviously is nonsense.

In the presentation, an attempt is made to find a framework that can connect theory to practice. In this framework (self-organizing) anatomy and motor control are connected in a number of simple rules for high intensity contextual movement. Phenomena like phase transitions are integrated with these simple rules in so called “single stressor protocols” for hamstrings, ACL and other injuries.