

Proprioception – Balance – Sensorimotor Training Methods and Tools



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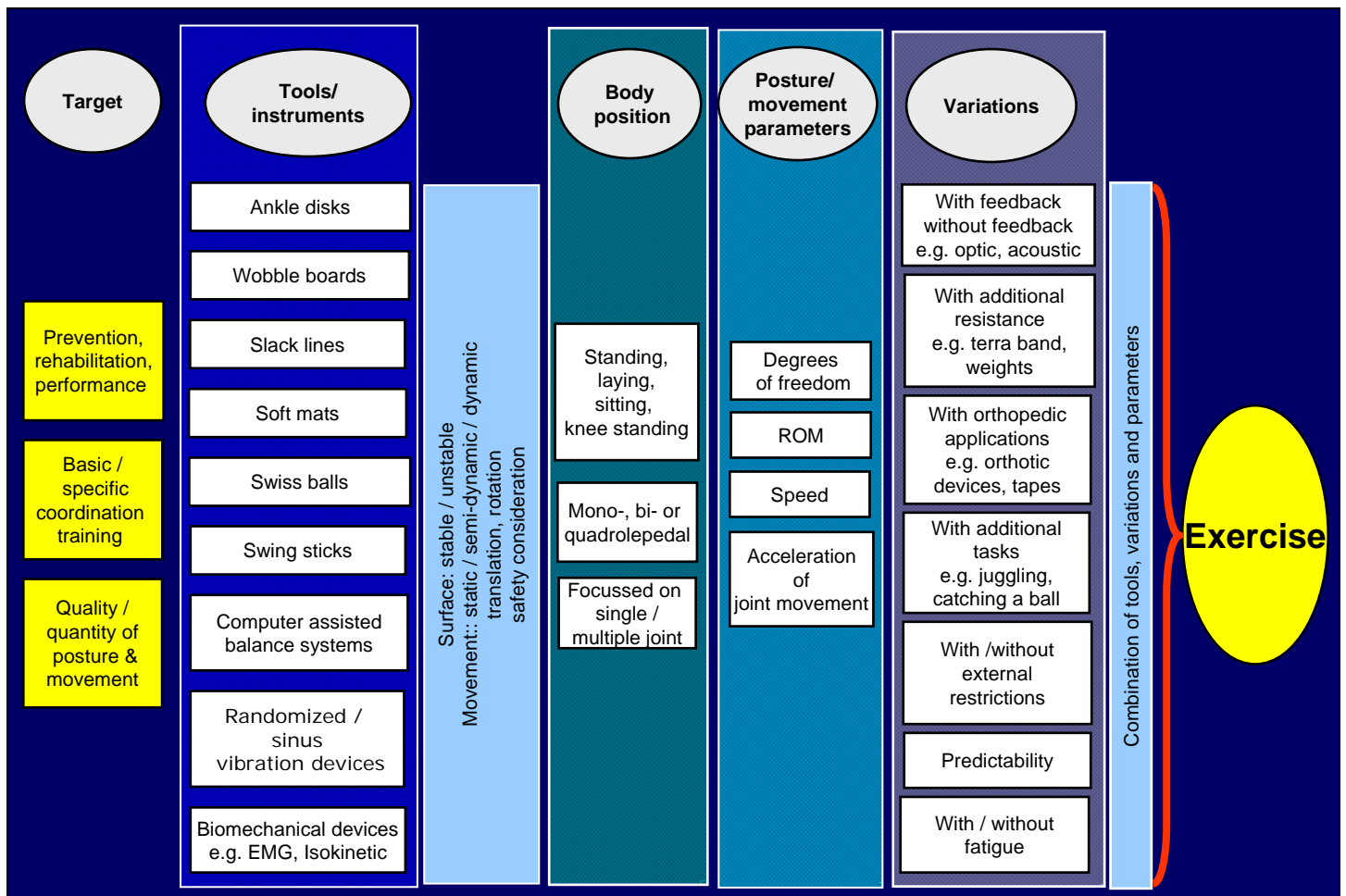


Introduction

The efficiency of sensorimotor training relies in the increase of sensory response from peripheral resources, resulting in improved weighting of the afferent input in efferent muscle activation. The ability of postural control and balance is the most important coordinative function and captures a certain exceptional position like a fundamental basic ability. No general and universal specifications exist for the balance-training.

Scheme for training and therapy

Fig. 1 shows a scheme of all relevant factors which can be combined in training of sensorimotor control. Based on the target and regarding to the optimal effectiveness the different variant possibilities have to be designed to create the optimal exercise. This figure is an example and does not aim at giving a complete overview of all tools, body positions, parameters & variations.



Example



Target: rehabilitation
Tool: biomechanic device
Surface: unstable
Body position: standing
Movement: semi-dynamic; multiple joint,
Variations: feedback therapist, external stabilization, with EMG-feedback.

Literature (key references – full list available by contacting the author)

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