**Proproceptive Neuromuscular Facilitation in orthopedics and traumatology**

*Blanka Koščak Tivadar, MSc. Edu. & Men. in Healthcare., BSc Physiotherapy, Mediko d.o.o.*

***Abstract:***

Theoretical foundations: Concept Proproceptive Neuromuscular Facilitation (PNF) that was developed in early 1940s first as a therapeutic method for neurological patients has expanded to all diagnosis and conditions. The concept itself or rather the way of thinking with a holistic treatment approach, that is positive and directed toward patient`s functional problem, is a good physio therapeutic tool for orthopedics and traumatological patients.

Goals: Efficinecy of use of the concept for non neurological patients.

Method: Literature review of PNF articles.

Results: The main goal of PNF concept is to increase the range of motion (passive and active), muscle strength and improve performance. PNF stretching techniques, such as hold-relax and contract-relax, can overcome myotatic reflex and are still safe technique. Adding stimulation of joint receptors and muscle spindle stretch receptors (traction) and stabilization (approximation) enables better coordination (timing). Combination of stretching and strengthening techniques increases muscle strength specially when applied directly after exercises. Using of indirect approach in pain patients with degenerative changes also has a significant impact on reducing pain.

Discussion:PNF are commonly used in rehabilitation of the knee, shoulder, hip and ankle and very useful also for back pain patients.

***Key words:*** *PNF, orthopedics, traumatology*

Blanka Koščak Tivadar, [blanka@mediko.si](mailto:blanka@mediko.si), 00386 40 627 915, Dedni Dol 33, 1294 Višnja Gora, Slovenija