

Uporaba Flexi-barja v fizioterapiji

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Uvod: Vibracijska palica Flexi-bar je multifunkcionalni in tridimenzionalni pripomoček, ki ga lahko vključimo v fizioterapevtski program na različnih področjih fizioterapije. Elastične in konstrukcijske značilnosti palice omogočajo vibriranje s frekvenco 5 Hz, s čimer vplivamo na stabilizacijske mišice trupa. (1) Oscilacijsko gibanje stimulira mehanoreceptorje, ki inhibirajo prevajanje nociceptivnih impulzov do hrbtenjače in možganskega debla. (2) Pri vibracijski vadbi se ob vsaki mišični kontrakciji aktivira do 100 odstotkov mišičnih vlaken, pri standardnih oblikah vadbe pa se odstotek aktiviranih mišičnih vlaken giblje nekje med 40 in 60 odstotki. (3) Vzrok je v skoraj nenehnem refleksnem krčenju in raztezanju mišic. Vadba z njim je enostavna, če upoštevamo postopnost in primernost pri izboru vaj. Primerna je za vse starostne skupine, uporabljamo jo lahko v različnih položajih telesa. **Metode:** Na delavnici bomo prikazali osnovne principe uporabe Flexi-barja. Naučili se bomo: pravilne tehnike nihanja z različnimi prijemi palice ter nihanja v različnih položajih telesa in pri različnih vajah ter pogledali njihovo uporabnost. Govorili bomo tudi o indikacijah in kontraindikacijah za vadbo. **Zaključki:** Uporaba vibracijskih palic v fizioterapevtske namene je smiselna in učinkovita.

Use of Flexi-bar in physiotherapy

Introduction: Flexi-bar is a vibrating, multifunctional, threedimensional accessory that can be included in different fields of physiotherapy and therapeutical programmes. Elastic and constructional features of the bar enable vibrating by frequency 5 Hz which determinates the activation of core muscles. (1) Oscilating movement stimulates mechanoreceptors that inhibit the translation of the nociceptive impulse to the spinal cord and brain stem. (2) By vibrating exercise each muscle contraction activates till 100% of muscle fibres while by standard exercise 40 to 60% of muscle fibres is activated. (3) The reason for that is almost constant reflex of contracting and stretching of the muscles. Flexi-bar training is simple considering gradualness and adequacy of the exercise. It is suitable for all ages and it can be used in different positions of the body. **Methodes:** In the workshop we will demonstrate basic principles of the use of the Flexi-bar. We will learn the correct technique of the oscillating by different grips of the bar in various positions of the body, exercises and their usefulness in physiotherapy. We will talk about indications and contraindications. **Conclusion:** The use of the oscillating bar is a reasonable and effective part of the physiotherapy treatment.

Literatura/References:

1. Mileva KN, Kadr M, Amin N, Bowtell J (2010). Acute effects of flexi-bar vs. sham-bar exercise on muscle electromiography activity and performance. Journal of strength and conditioning research 24 (3): 737–48.
2. Kisner C, Colby L.A. 2000. Therapeutic Exercises: Foundations and Techniques.
3. Cochrane, DJ and Stannard, SR. Acute whole-body vibration training increases vertical jump and flexibility performance in elite female hockey players (2005). Br J Sports Med 39: 860–5.