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Effectiveness Of A Novel Un-loader Thumb Orthosis For Physiotherapist

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Introduction: Pain at the base of the thumb is common problem especially in physical therapist performing mobilization techniques .certain maitland techniques apply pressure through the tip of the thumb to produce passive intervertebral mobilization so these techniques apply compressive force longitudinally through the thumb which cause thumb arthritis and subluxation at first carpo-mtacarpal joint. so I designed a new orthosis that decrease the compressive forces through the thumb and sharing the forces between the tip of the thumb and the orthosis .**the purpose** of this study to investigate the effectiveness of a novel thumb orthosis for physiotherapists in terms of pain and quality of technique application.**Methods:** the novel unloader thumb orthosis includes: padded ulnar and radial metal support ,spring system ,open tip circle .during mobilization techniques the applying force transmits from the arm of the physiotherapist to the supporting metals to the spring system which de-load the force on the thumb. **Conclusion:** the most common strategy used to control thumb pain are changing the choice for treatment, altering thumb joints and using supporting splints so the novel thumb unloader orthosis is needed to manage the cause of the thumb pain for physiotherapist.

Key words : Thumb ,Un-Loader orthosis, Occupational injuries