

Whole Body Vibration as a Physiotherapy Tool for Post-Traumatic Knee Osteoarthritis Patients: A Commentary

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and effective intervention for targeting neuromuscular strength deficits while improving functional capability [6,7]. Therefore, WBV may be an effective therapy in reducing the amount of functional disability or loss of lower extremity joint stability that individuals with post-traumatic knee OA suffer with on a daily basis by providing enhanced neural activation of both sensory and motor fibers and improving joint homeostasis. Further, the attractiveness of WBV therapy is the ability to apply the treatment in a low-impact manner, which is critical for individuals with impaired mobility and attenuated muscle strength such as the post-traumatic knee OA population. Optimal neuromuscular function is of utmost importance when trying to delay the development and progression of knee OA, and due to the neuromuscular training effect of WBV, its use in the post-traumatic knee OA population could be profound and effective [34,35]. Further, WBV provides a less fatiguing and less time-consuming method to enhance physical capabilities. Although OA is a chronic disease requiring extended treatment, WBV therapy has been associated with limited adverse effect and therefore has the potential for long term use in the rehabilitation of knee OA pathology [36]. The positive effects of WBV training evident from previous studies and the short training time associated with this therapy is extremely encouraging and therefore warrants the need for further utilization of this therapy test in post-traumatic knee OA patients.

In summary, utilizing WBV therapy may provide more useful information for rehabilitation purposes in patients with post-traumatic knee OA. Additionally, by investigating the effect WBV has on daily functional activities, strength, and quality of life, further knowledge can be accumulated to aid in designing optimal intervention and prevention programs to reduce the functional disability this active aging population faces on a daily basis and may potentially delay the need for a joint replacement.

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