

Knee OA- Physical Therapy Treatment. An Evidence Based Approach

According to the CDC, arthritis is the nations leading cause of disability in the United States. Thirty three percent of persons 63-94 yrs of age are affected by osteoarthritis of the knee, which often limits the ability to perform normal activities of daily living ⁽¹⁾. It is our mission as physical therapist to prevent the functional decline of our aging population. Numerous randomized controlled trials have been conducted on patients with knee osteoarthritis and have shown significant improvements in pain, function and quality of life with physical therapy treatment.



In the past physical therapy treatment focused only on therapeutic exercises including strengthening and flexibility exercises and modalities to relieve pain. Recent research has shown modalities alone are not as effective as we once thought however research continues to support the use of exercise, in particular when combined with other treatments. With the use of research, physical therapists have defined the following treatments to be the **most effective in the treatment of knee OA**.

1. **Manual therapy combined with exercise:** Deyle et al ⁽¹⁾ conducted a study with 83 pts with mod-severe knee OA and found utilizing general hip mobilization techniques combined with exercise was more effective than a placebo US treatment. Statistically significant improvements were found in pain, 6-min walk test and WOMAC (self reported function score) after just 8 treatments delivered in 4 wks. Significant effects were present at a one yr follow up.
2. **Patellar Taping:** A systematic review and meta-analysis by Warden et al ⁽²⁾ found a clinically significant reduction in knee pain with medially directed patellar taping in patients with knee osteoarthritis as compared with no taping and sham taping.
3. **Kinesthesia and balance exercises:** Diracoglu et al ⁽³⁾ found statistically significant improvements in the WOMAC (self reported function score), stair climbing, 10 m walk test, and isokinetic muscle strength when utilizing kinesthesia and balance exercises in addition to general strengthening exercises as compare to general strengthening exercises alone.
4. **TENS combined with exercise:** A systematic review by Jametvedt et al ⁽⁴⁾ found TENS reduced pain when compared to control groups. Knee stiffness also improved significantly in the active treatment group: exercise and TENS compared with placebo.

The bottom line- Research has shown physical therapy utilizing manual therapy, patellar taping, kinesthesia/balance exercises, and TENS combined with exercise can dramatically improve pain and function in patients with knee osteoarthritis. Allowing us to be an extension of your practice will improve outcome and quality of life for your patients.

References:

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2. Warden S, Hinman R, Watson M, Avin K, Bialocerkowski A, Crossley K. Patellar Taping and bracing for the Treatment of Chronic Knee Pain: A Systematic Review and Meta-Analysis. *Arthritis and Rheumatology.* Vol.59 No.1 Jan 2008, 73-83.
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