
Manual Therapy

Manual therapy in addition to an exercise program may be used to improve pain and function in patients with knee osteoarthritis.

Strength of Recommendation: Limited ★★☆☆ (downgrade)

Description: Evidence from one or more “Low” quality studies with consistent findings or evidence from a single “Moderate” quality study recommending for or against the intervention. Also, higher strength evidence can be downgraded to limited due to major concerns addressed in the EtD Framework.

Rationale

Manual therapy consists of maneuvers applied with manual force from the treating therapist to the patient’s body to improve joint mobility and/or relieve pain. The techniques may generally consist of manually applied joint mobilization techniques, manually applied joint range of motion and/or muscle stretching, and soft tissue massage. One high quality study (Fitzgerald 2016) and one moderate quality study (Deyle 2000) were reviewed that examined manual therapy combined with exercise compared to exercise alone (Fitzgerald 2016) or non-therapeutic ultrasound (placebo physical therapy) in subjects with knee osteoarthritis. (Deyle 2000) Fitzgerald, et al, reported that both groups yielded significant improvements in clinical outcomes from baseline but the manual therapy group had greater improvements in the WOMAC total score and were more likely to meet the OMERACT-OARSI Responder Criteria at the 9 week follow-up. (Fitzgerald 2016) While both groups demonstrated sustained improvements in clinical outcomes at 1 year there was no difference between groups on any measures at this timepoint. Deyle et al. reported similar findings with the manual therapy and exercise group demonstrating greater improvements at 8 weeks but no significant differences between groups at 1 year (Deyle 2000).

The Manual Therapy recommendation has been downgraded one level because of inconsistent evidence and to lack of internal consistency with recommendations of equal supporting evidence.

Benefits/Harms of Implementation

Most patients can expect an improvement in pain and function with the interventions. Patients may experience a temporary increase in knee pain or muscle soreness when engaging in a manual therapy and exercise program.

Cost Effectiveness/Resource Utilization

Bove, et al 2018 found manual therapy and exercise delivered with periodic booster sessions was more cost-effective than delivery of this same intervention without booster sessions. (Bove 2018) The cost effectiveness assessment was over a 2-year follow-up (Bove 2018).

Feasibility

The manual therapy interventions are feasible for patients who have access to in-person physical therapy. The exercise interventions are feasible both from an in-person and home program perspective.

Future Research

Future studies should examine ways to sustain the effects of manual therapy and exercise for extended follow-up periods. Research is needed to determine the effectiveness of self-applied manual therapy and telerehabilitation applications of manual therapy and exercise interventions for improving pain and function in patients with knee osteoarthritis.