Yilmaz OO, Senocak O, Sahin E, et al. Efficacy of EMG-biofeedback in knee osteoarthritis. Rheumatol Int 2010; 30:887–892.

Reviewer: Linda Metzger 1-29-15

Design: Randomized controlled trial

Objective: To investigate the additive effect of EMG-biofeedback to a strengthening exercise program in the rehabilitation of participants with knee osteoarthritis (OA).

Summary of Results:

- **I**n summary, the results of this small trial demonstrated that short-term EMG-biofeedback treatment provided no significant additive effects of reduced pain or improved function to a regular strengthening exercise program in the rehabilitation of patients with knee OA.

Reasons not to Cite as Evidence:

- Sample size was extremely small. The 2 intervention groups included only 40 participants.
- Neither the pain (VAS) nor the function (WOMAC) outcome measures showed significant differences between the 2 groups at the follow-up assessment. However, the study may have been underpowered to detect any differences. These results could be due solely to the small sample size.
- Based on only this one study, there is lack of supporting evidence from any other studies to make a definitive statement that EMG-biofeedback provides no additive therapeutic effects to a strengthening exercise program in patients with knee OA.

Assessment:

Inadequate for evidence of the effect of EMG-biofeedback on knee OA.