



Deconditioned Knee. The effectiveness of a rehabilitation program that restores normal knee motion to improve symptoms and function. Shelbourne KD, Biggs A, Gray T. *North Am J Sports Phys Ther.* 2007;2:81-89.

ABSTRACT

Background: Knee pain can cause a deconditioned knee. Deconditioned is defined as to cause to lose physical fitness. Therefore, a deconditioned knee is defined as a painful syndrome caused by anatomical or functional abnormalities that result in a knee flexion contracture (functional loss of knee extension) decreased strength and decreased function. There are no published studies examining treatment for a deconditioned knee.

Purpose: To determine the effectiveness of a rehabilitation program focused on increasing range of motion for patients with a deconditioned knee.

Materials/Methods: Fifty patients (mean age 53.2 years) enrolled in the study. Objective evaluation included radiographs, knee range of motion, and isokinetic strength testing. The International Knee Documentation Committee (IKDC) subjective questionnaire was used to measure symptoms and function. Patients were given a rehabilitation program to increase knee extension (including hyperextension) and flexion equal to the normal knee, after which patients were instructed in leg strengthening exercises.

Results: Knee extension improved from a mean deficit of 10° to 3° ($P < 0.001$). Knee flexion improved from a mean deficit of 19° to 9° ($P < 0.001$). IKDC survey scores improved from a mean of 34.5 points to 70.5 points at 1 year after beginning treatment ($P < 0.001$). IKDC subjective pain frequency and severity scores were significantly improved ($P < 0.001$).

Conclusions: A rehabilitation program that improves knee range of motion can relieve pain and improve function for patients with a deconditioned knee.