

Effects of Open and Close Kinetic Chain Exercises On Lower Limbs Proprioception among Healthy Adults.

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- **Abstract:** Purpose: This study is to compare the effects of open kinetic chain exercise (OKCE) and close kinetic chain exercise (CKCE) on proprioception of the joints among healthy adults. Methods: This is an open labelled randomized clinical study in which a total of thirty-three subjects were recruited and randomly assigned into OKCE and CKCE groups. Both groups had undergone six weeks rehabilitation programme of three sessions per week. The OKCE comprise of static quadriceps contraction (SQE) exercise, inner range quads (IRQ) and straight leg raise (SLR) exercise, while the CKCE encompass lunge repositioning error test in sitting position. Results and conclusion: There was no statistical difference in knee and ankle joint proprioception of the limb between OKCE and CKCE rehabilitation interventions, however each group showed significant improvement after 6 weeks of exercises. Both kinetic chain exercises have similar therapeutic effects in improving proprioception, and can be used effectively in rehabilitation programme.
- **Keywords:** OKCE, CKCE, SEM, Clinical study, SQE, Therapeutic effects.