

# Isokinetic strength in peritoneal dialysis patients: A reliability study

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Although there are studies assessing the effects of interventions on the knee strength of patients undergoing dialysis, there are no previous studies investigating the test-retest reliability of isokinetic measures in people undergoing peritoneal dialysis. The objective of this study was to determine the relative and absolute reliability of peak torque and work measurements for isokinetic concentric knee and elbow extension and flexion in peritoneal dialysis patients. Thirty-one patients undergoing peritoneal dialysis (19 males) participated in the current study. All isokinetic tests were performed using a Biodex System 3. Participants performed three concentric repetitions of each test (flexion or extension) with the dominant limb (knee and elbow) at 60°/s. Peak torque (Nm) and work (J) were extracted. The intraclass correlation coefficient (ICC), standard error of measurement (SEM), and smallest real difference (SRD) were calculated. The results showed that all knee peak torque and work measures had an ICC of > 0.90. On the other hand, the ICC for peak torque and work in the elbow concentric extension was < 0.90, while the remaining elbow-related variables achieved an excellent reliability. Therefore, isokinetic dynamometry is a reliable technique to evaluate peak torque and work for concentric flexion and extension in both the knee and elbow joints in patients undergoing peritoneal dialysis. © 2019 by the authors.

Exercise

Kidney

Peritoneal dialysis

Physical fitness

Torque