EFFECTS OF LEG DOMINANCE ON THE SINGLE-LEG HOP FUNCTIONAL TEST IN NON-INJURED ADULTS

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The purpose of this study is to analyze the effects of leg dominance on the single-leg hop functional test in non-injured adults. The single-leg hop test (SLHT) is a common test used to determine functional stability and strength after anterior cruciate ligament reconstruction (ACLR). Clinicians often use isokinetic strength exercises and single leg hop test in lower extremity rehabilitation; these test scores are used as criterion to determine the progression and the suitability of the patient to return to sport participation. Studies have shown that there is controversy in determining leg dominance and there could be large discrepancies in strength between dominant and non-dominant legs. Twenty-two subjects between the ages of eighteen and twenty-five performed three-jump trials consisting of three jumps from their dominant leg, three jumps from their non-dominant leg, and three jumps from both legs. A tape measure was used to calculate the distance of each subject’s jumps. AMTI forces plates were used to record the ground reaction forces generated to determine which leg contributed more the jump. Leg dominance seems to be functional of the type of activity a subject is required to perform. When the task is manipulated in nature, most subjects used the right leg (most people are right-side preference) but when the task involved stabilization such as standing on one leg, more than 50% of the subjects in the study used the left leg to perform the task. Further data analysis of the ground reaction forces will help us determine if leg preference has an effect on the SLHT.

KEY WORDS: leg dominance, Anterior Cruciate Ligament Reconstruction, AMTI force plates.

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