



Squat Exercise

[double-leg]

5 reps · captured 22 Apr 2026, 09:06 · demo-subject

NOTES

[FICTIONAL]: 52 y/o female, 4 months post right total knee arthroplasty, referred for functional lower-limb assessment as part of return-to-activity progression. Reports residual stiffness in the mornings, improving with movement throughout the day. No current pain at rest; mild pain (2/10) reported with deep flexion, particularly near end-range squatting. No swelling or warmth noted at the joint currently.

Completed formal post-surgical rehab (14 weeks) and has since transitioned to a home exercise program 3x/week. Patient reports feeling "unstable" in the right knee when descending past parallel and tends to shift weight onto the left leg during functional tasks such as sit-to-stand and stair descent. No assistive device used. Left knee unremarkable, no prior surgical history.

Goal for this session is to assess squat depth, symmetry, and loading strategy on the surgical side, and to establish a baseline for progressing toward unrestricted functional movement.

METRIC OVERVIEW

Squat depth (cm)

38.9 cm



Peak knee flexion (deg)

L 109.4° R 110.1°



Peak hip flexion (deg)

L 78.8° R 81.2°



Peak dynamic knee valgus (deg)

L -11.0° R 7.50°



Peak ankle dorsiflexion (deg)

L 30.3° R 27.8°



Peak trunk flexion (deg)

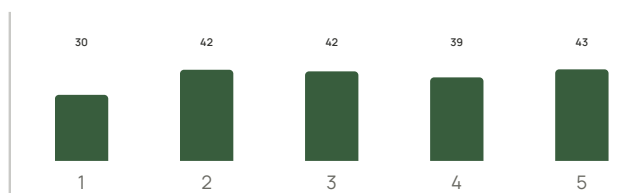
62.1°



PER-REP CHART

Squat depth (cm)

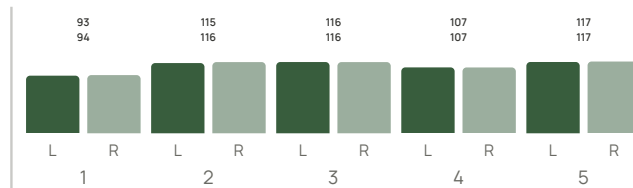
38.9 cm



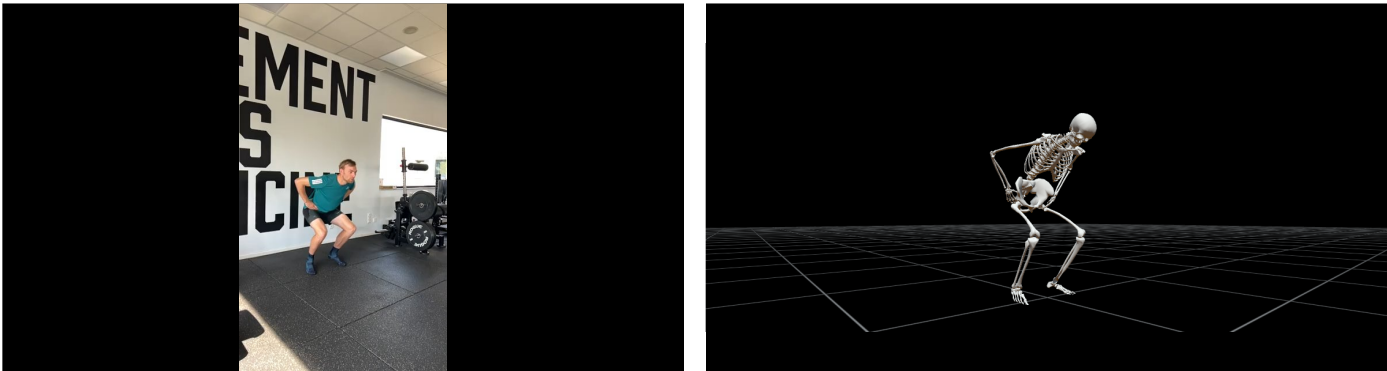
PER-REP CHART

Peak knee flexion (deg)

L 109.4° R 110.1° 0.6% asym

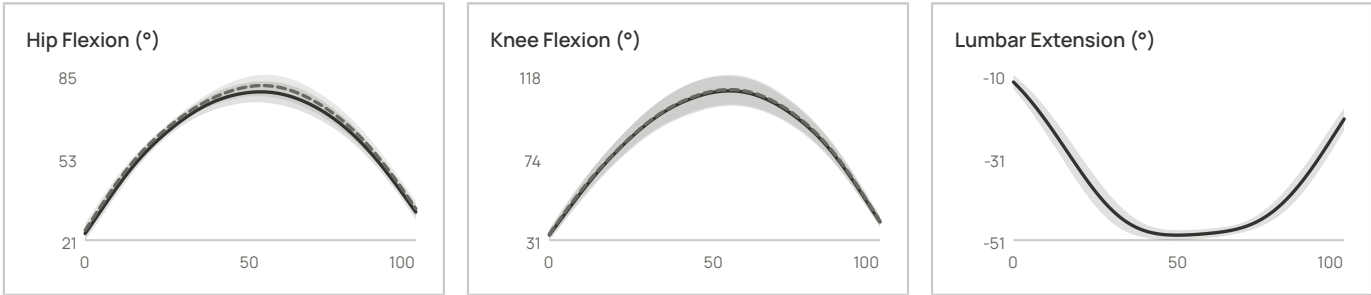


MEDIA



NORMALIZED JOINT KINEMATICS

— Left — Right 95% CI



DETAILED RESULTS

METRIC	REP 1			REP 2			REP 3			REP 4			REP 5		
	L	R	ASYM	L	R	ASYM	L	R	ASYM	L	R	ASYM	L	R	ASYM
Squat depth (cm)	30 cm			42 cm			42 cm			39 cm			43 cm		
Feet-to-shoulder width ratio (%)	93 %			94 %			98 %			96 %			97 %		
Peak vertical COM velocity (m/s)	0.7 m/s			0.8 m/s			0.8 m/s			0.8 m/s			0.9 m/s		
Peak trunk flexion (deg)	63 °			64 °			57 °			66 °			61 °		
Peak trunk lean (deg)	1 °			3 °			3 °			1 °			3 °		
Peak hip flexion (deg)	70 °	73 °	4.0%	83 °	87 °	3.6%	78 °	79 °	1.8%	82 °	85 °	3.1%	81 °	83 °	2.4%
Peak knee flexion (deg)	93 °	94 °	1.1%	115 °	116 °	1.5%	116 °	116 °	0.1%	107 °	107 °	0.1%	117 °	117 °	0.7%
Peak dynamic knee valgus (deg)	-6 °	7 °	186.5%	-13 °	7 °	156.1%	-13 °	7 °	150.8%	-10 °	7 °	174.5%	-12 °	9 °	169.7%
Peak ankle dorsiflexion (deg)	28 °	26 °	5.1%	31 °	29 °	9.2%	31 °	28 °	8.8%	30 °	28 °	8.3%	31 °	29 °	8.3%