



Cutting Maneuver

captured 22 Apr 2026, 08:51 · demo-subject

[45-deg]

[left-leg]

NOTES

[FICTIONAL]: 21 y/o male soccer player, no history of lower-limb surgery, referred for cutting-maneuver assessment following a recent episode of right knee "giving way" during a training session 3 weeks ago.

No structural damage found on imaging; MRI reported as unremarkable, with working diagnosis of a mild patellofemoral irritation. Currently pain-free at rest and cleared by team physician to resume training, restricted from match play pending this assessment.

Patient reports the knee occasionally feels "wobbly" during sharp cutting movements in practice, particularly when decelerating at speed, though has not recurred since the initial episode. No swelling or locking since the event. Athlete is otherwise fit and has not missed significant training time. Coaching staff has flagged a recent increase in high-intensity training load over the past month.

Goal for this session is to assess deceleration mechanics and frontal-plane knee control during shallow and sharp cutting movements, and to identify any modifiable risk factors before clearing the athlete for full contact training.

METRIC OVERVIEW

Completion time (s)

1.83 s



Entry velocity (m/s)

4.55 m/s



Peak dynamic knee valgus during final contact (deg)

2.70 °



Foot placement relative to COM at change of direction

0.62



Trunk lean towards cutting leg at change of direction (deg)

-9.20 °



Trunk flexion at change of direction (deg)

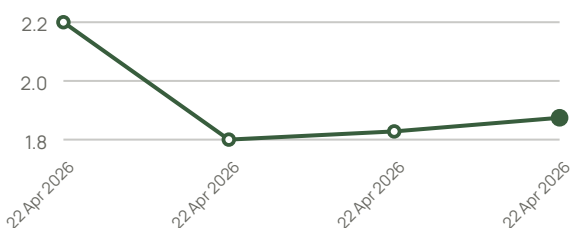
28.3 °



METRIC TREND CHART

Completion time (s)

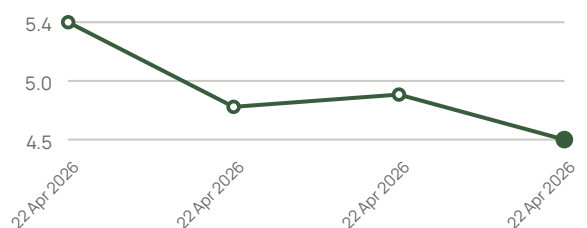
Trend vs last 3



METRIC TREND CHART

Entry velocity (m/s)

Trend vs last 3



DETAILED RESULTS

METRIC	LEFT	RIGHT	ASYMMETRY
Completion time (s)		1.8 s	
Peak velocity (m/s)		5.7 m/s	
Foot placement relative to COM at change of direction		0.62	
Knee flexion angle at initiation of final contact (deg)		28 °	
Peak knee flexion during final contact (deg)		46 °	
Peak dynamic knee valgus during final contact (deg)		3 °	
Trunk lean towards cutting leg at change of direction (deg)		-9 °	
Trunk heading at change of direction (deg)		27 °	
Trunk flexion at change of direction (deg)		28 °	
Entry velocity (m/s)		4.5 m/s	
Peak forward velocity (m/s)		5.6 m/s	
Peak lateral velocity (m/s)		5.1 m/s	

MEDIA

