Supplementary material 2. Definitions and calculations for kinetic and kinematic variables examined during cutting across studies

	Variable	Foot contact	Abbreviation	Definition or calculation
Sagittal plane joint moments	Peak knee flexion moment	FFC	KFM	Peak external joint moments during weight acceptance using inverse dynamics
Sagittal plane joint angles	Knee flexion angle	FFC	KFA	Derived from the following order of rotations: flexion (+)/extension (-). Absolute angle of two segments relative to a vertical line. Greater values indicate, greater knee flexion. Peak, IC, and ROM examined.
Frontal plane injury risk parameters	Peak knee abduction moments	FFC	KAM	Peak external knee abduction moment (+ abduction/- adduction) during weight acceptance of FFC using inverse dynamics. Synonymous with knee valgus moment.
	Knee abduction angle	FFC	KAA	Knee abduction angle (-) during weight acceptance /adduction (+). Peak and IC examined.
Transverse plane injury risk parameters	Peak knee rotation moment	FFC	KIRM	Peak external knee rotation moment (+ external/- internal) during weight acceptance using inverse dynamics
GRF	Mean horizontal braking force (Fx)	PFC	Mean HBF	Average normalised HGRF (Fx) during weight acceptance
	Peak vertical braking force (Fz)	FFC	VBF	Peak normalised VGRF (Fz) value during weight acceptance
Trunk, hip, and foot variables	Lateral trunk flexion	FFC	-	Angle of trunk relative to vertical line perpendicular to the pelvis in frontal plane: (0˚) upright / (+) medial trunk flexion away from plant foot/ (-) lateral trunk flexion towards plant foot. At IC.
	Lateral foot plant distance	FFC	-	Lateral distance from initial foot contact of foot COM to proximal end of pelvis
	Initial foot progression angle	FFC	IFPA	Angle of foot progression relative to global coordinate system: straight (0°)/inward rotation (+)/outward rotation (-) angle (°). At IC.
	Hip rotation angle	FFC	HRA	Femur internally rotated (-)/ external rotation (+). Peak and IC examined
Velocity/COM	Horizontal velocity of COM	FFC	-	The first derivative of the model COM (combined lower-limb and trunk model) position was computed to derive anterior-posterior (x), vertical (z), and ML (y) FFC. Resultant horizontal plane velocity was calculated using the following formula: $\sqrt{((\text{COM vel } (x)^2) + (\text{COM vel } (y)^2))}$ to provide a "velocity profile" along the path of the participants COM during the cut. Model COM velocity at, FFC touch-down

Key: PFC: Penultimate foot contact; FFC: Final foot contact; COM: Centre of mass; COD: Change of direction; IC: Initial contact; GRF: Ground reaction force; HGRF: Horizontal GRF; VGRF: Vertical GRF; vel: velocity; ROM: Range of motion.