SDC5: Description of the lower extremity joints (hip, knee and ankle) range of motion assessment tests and measures obtained from them.

Lower extremity joints range of motion assessment tests

The passive hip flexion with knee flexed and extended, extension, abduction, external and internal rotation; knee flexion; and ankle dorsiflexion with knee flexed and extended ROMs of the dominant and non-dominant legs were assessed following the methodology previously described [1]. Furthermore, for each joint ROM measure, side-to-side differences were also calculated. In this sense, when side-to-side difference > 6º was found, players were categorised as showing bilateral asymmetries whereas scores ≤ 6º were accepted as normal (non-bilateral asymmetries) [2].

Measures obtained from the lower extremity range of motion assessment tests.

Name	**Labels**	
	Dominant Leg	**Non-Dominant Leg**
ROM-PHF$_{KF}$	<144.5, 144.5-151.5 or >151.5	<144.5, 144.5-152.5 or >152.5
ROM-PHF$_{KE}$	<77.5, 77.5-82.9 or >82.9	<78.5, 78.5-84.5 or >84.5
ROM-PHE	<7.5, 7.5-12.5 or >12.5	<9.25, 9.25-13.5 or >13.5
ROM-PHABD	<61.5, 61.5-68.5 or >68.5	<58.5, 58.5-66.5 or >66.5
ROM-PHIR	<44.5, 44.5-50.5 or >50.5	<42.5, 42.5-48.5 or >48.5

ROM-PHER	<47.5, 47.5-52.5 or >52.5	<46.5, 46.5-55.5 or >55.5
ROM-PKF	<121.5, 121.5-132 or >132	<120.5, 120.5-130.5 or >130.5
ROM-PAKDF$_{KE}$	<34.25, 34.25-39.5 or >39.5	<35.25, 35.25-38.5 or >38.5
ROM-PAKDF$_{KF}$	<35.5, 35.5-40.5 or >40.5	<36.75, 36.75-39.75 or >39.75
BilaRatio- ROM-PHF$_{KF}$	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-PHF$_{KE}$	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-PHE	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-ABD	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-PHIR	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-PHER	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-PKF	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-AKDF$_{KE}$	No Asymmetry (≤6º) or Asymmetry (>6º)	
BilaRatio- ROM-AKDF$_{KF}$	No Asymmetry (≤6º) or Asymmetry (>6º)	

PROM: passive range of motion; HF_{KF}: hip flexion with the knee flexed; HF_{KE}: hip flexion with the knee extended; HE: Hip extension; HABD: hip abduction at 90º of hip flexion; HIR: hip internal rotation; HER: hip external rotation; KF: knee flexion; $AKDF_{KE}$: ankle dorsi-flexion with the knee extended; $AKDF_{KF}$: ankle dorsi-flexion with the knee flexed; Bila: bilateral.

References

1. Cejudo A, Sainz de Baranda P, Ayala F, Santonja F. Normative data of lower-limb muscle flexibility in futsal players. *Rev Int Med Cienc Act Fis Deporte* 2014;14:509-525.
2. Fousekis K, Tsepis E, Poulmedis P, Athanasopoulos S, Vagenas G. Intrinsic risk factors of non-contact quadriceps and hamstring strains in soccer: a prospective study of 100 professional players. *Br J Sports Med* 2011;45:709-714.