

Virtual palpation dictionary for the registration process of lumbosacral spine bone landmarks (LMs)

by the author Robin Remus, Ruhr-University Bochum, 2022

LM number	LM name	van Sint Jan 2007	Schmid et al. 2017	Description
Lumbar vertebrae (L1-L5)				
Point 1	LAV/S			LAV superior - Superior side of lamina arcus vertebrae at the posterior tip of the vertebral foramen
Point 2	SAP/R			SAP right - most posterior point of right superior articular process
Point 3	SP/I			SP inferior - most inferior point of spinous process (in sagittal plane)
Point 4	SP/P	LV	SPL1-5	SP posterior - most posterior point of spinous process (in sagittal plane)
Point 5	VB/A			VB anterior - Most posterior point of the concave area of the anterior face of the vertebral body (in sagittal plane)
Point 6	VB/PI			VB posterior inferior - most posterior and inferior point of vertebral body (in sagittal plane)
Point 7	VB/PS			VB posterior superior - most posterior and superior point of vertebral body (in sagittal plane)
Point 8	VB/RI			VB right lateral inferior - most inferior and right lateral point of vertebral body
Point 9	VB/RS			VB right lateral superior - most superior and right lateral point of vertebral body
Sacrum				
Point 1	CS/PS			CS posterior superior - Posterior superior point of outer margin of bony canalis sacralis (in sagittal plane)
Point 2	CS/S			CS in sagittal plane - Intersection of a straight line from the end points of the cornua sacralia with the sagittal plane
Point 3	LSC/1R			LSC right - Lateral sacrum crest at right side at first sacral foramen
Point 4	LSC/3R			LSC right - Lateral sacrum crest at right side at third sacral foramen
Point 5	MSC/2	SS2		Tip of median sacral crest closest/between second sacral foramen
Point 6	PAS/R			PAS right - Most right and superior point of proc. articularis superior
Pelvis				
Point 1	AC/R	IAC		AC right - Center of right acetabulum
Point 2	SIAS/R	IAS	RTAS	SIAS right - Right spina iliaca anterior superior
Point 3	SIPS/R	IPS	RTPS	SIPS right - Right spina iliaca posterior superior
Point 4	CI/SR	ICT	RTMS	CI superior right - Most superior point of the right crista iliaca measured from a reference line between SIAS and SIPS
Point 5	SI/R			SI right - Spina ischiadica at the right side
Point 6	SN/R			SN right - Tip of the right greater sciatic notch
Point 7	TP/R	IPP		TP right - Right tuberculum pubicum

Thorax

Point 1	AC/7R	AC 7 right - Angulus costae of the right 7th rib (fascies externa, inferior edge)
Point 2	AC/9R	AC 9 right - Angulus costae of the right 9th rib (fascies externa, inferior edge)
Point 3	AC/11R	AC 11 right - Angulus costae of the right 11th rib (fascies externa, inferior edge)
Point 4	CC/7R RA7	CC 7 right - Anterior end of 7th right corpus costae (fascies externa)
Point 5	CC/11R	CC 11 right - Most inferior point of the 11th right corpus costae and/or cartilago costalis (fascies externa)
Point 6	CS/I SXS	CS inferior - Most inferior point of the corpus sterni (in sagittal plane, anterior side)
Point 7	JN SJN CLAV	Jugular notch
Point 8	SP/3P TV3 SPT1	SP T3 posterior - Most posterior point of 3rd thoracic spinous process (in sagittal plane)
Point 9	SP/5P TV5 SPT2	SP T5 posterior - Most posterior point of 5th thoracic spinous process (in sagittal plane)
Point 10	SP/7P TV7 SPT3	SP T7 posterior - Most posterior point of 7th thoracic spinous process (in sagittal plane)
Point 11	SP/9P TV9 SPT4	SP T9 posterior - Most posterior point of 9th thoracic spinous process (in sagittal plane)
Point 12	SP/11P TV11 SPT5	SP T11 posterior - Most posterior point of 11th thoracic spinous process (in sagittal plane)
Point 13	TC/7R	TC 7 right - Tuberculum costae of right 7th costa (rib)
Point 14	TC/9R	TC 9 right - Tuberculum costae of right 9th costa (rib)
Point 15	TC/11R	TC 11 right - Tuberculum costae of right 11th costa (rib)

Abdomen

Point 1	CS/I	CS inferior - Most inferior point of the corpus sterni (in sagittal plane, anterior side)
Point 2	LA/L3	LA L3 - Point at the linea alba which is a copy of SPP from L3 shifted in horizontal plane to the center of the abdominal ellipsoid
Point 3	LA/L4	LA L4 - Point at the linea alba which is a copy of SPP from L4 shifted in horizontal plane to the center of the abdominal ellipsoid
Point 4	SIAS/R	SIAS right - Right spina iliac anterior superior
Point 5	TP/R	TP right - Right tuberculum pubicum

Humerus

Point 1	CTMI/R	CTMI right - Right crista tuberculi minoris directly below at the collum chirurgicum
Point 2	HH/R	HH right - Center of humeral head
Point 3	TMA/R HGT	TMA right - Right tuberculum major (greater tubercle)
Point 4	TMI/R HLT	TMI right - Right tuberculum minus (less tubercle)