

Additional File 1: Search strategy

#	Text type	Pubmed		Scopus		Web of science		Cochrane Library	
		Search word	Hits	Search word	Hits	Search word	Hits	Search word	Hits
1	Mesh	"Child"[Mesh] OR "Adolescent"[Mesh] OR "Infant"[Mesh]	3,691,623	/				Mesh Descriptor: [Child] OR Mesh Descriptor: [Adolescent] OR Mesh Descriptor [Infant]	125,202
2	Free text	Child*[text] OR Teen*[text] OR Infant [text] OR Adolescent*[text]	4,319,563	TITLE-ABS (child*) OR TITLE-ABS (teen*) OR TITLE-ABS (infant*) OR TITLE-ABS (adolescent*) OR TITLE-ABS (bab*) OR TITLE-ABS (newborn*) AND (LIMIT-TO (DOCTYPE , "ar"))	2,391,293	(((((AB=(Child*)) OR AB=(teen*)) OR AB=(adolescent*)) OR AB=(infant*)) OR AB=(newborn*)) OR TI=(child*)) OR TI=(adolescent*)) OR TI=(teen*)) OR TI=(infant*)) OR TI=(newborn*))	2,229,231	(Child*):ti,ab, kw OR (Teen*):ti,ab, kw OR (Infant):ti,ab, kw OR (Adolescent*):ti,ab, kw OR (bab*):ti,ab, kw OR (newborn):ti,ab, kw	279,986
3		#1 OR #2	4,319,563		2,391,293	#1 OR #2	2,229,231	#1 OR #2	279,986
4	Mesh	"Upper Extremity "[Mesh]	171,813	/		/		Mesh Descriptor : [Upper Extremity]	7520
5	Free text	Upper Limb*[text] OR "Upper Extremit**"[text] OR Upper Bod**[text] OR arm[text] OR bimanual[text] OR interlimb[text] OR hand*[text]	936,642	TITLE-ABS (upper AND limb*) OR TITLE-ABS (upper AND extremit*) OR TITLE-ABS (upper AND bod*) OR TITLE-ABS (arm*) OR TITLE-ABS (bimanual) OR TITLE-ABS (interlimb) OR TITLE-ABS (hand*) AND (LIMIT-TO (DOCTYPE , "ar"))	1,904,958	(((((TI=(upper limb*)) OR TI=(upper extremit*)) OR TI=(upper body)) OR TI=(arm*)) OR TI=(bimanual)) OR TI=(interlimb*)) OR TI=(hand*)) OR AB=(upper limb*) OR AB=(upper extremit*) OR AB=(upper body)) OR AB=(bimanual)) OR AB=(interlimb*) OR AB=(hand*) OR AB=(arm*)	1,901,922	Upper Limb*[text] OR "Upper Extremit**"[text] OR Upper Bod**[text] OR arm[text] OR bimanual[text] OR interlimb[text] OR hand*[text]	178,106
6		#4 OR #5	1,004,247		1,904,958	#4 OR #5	1,901,922	#4 OR #5	180,608
7		#3 AND #6	168,436	#3 AND #6	102,894	#3 AND #6	77,724	#3 AND #6	27,731
8	Mesh	"Movement"[Mesh:NoExp] OR "Motor Activity"[Mesh] OR "Movement disorders"[Mesh:noexp] OR "Motion"[Mesh]	776,381	/		/		"Movement"[Mesh:NoExp] OR "Motor Activity"[Mesh] OR "Movement disorders"[Mesh:noexp] OR "Motion"[Mesh]	12,415
9	Free text	"Movement"[text] OR Motor [text] OR Motion [text] OR "Kinematic**"[text] OR "Biomechanic**"[text] OR "Instrumented measurement"[text] OR "Inertial"[text] OR "Sensors"[text] OR "Acceleromet**"[text] OR " technolog**"[text] OR " spatio-temporal"[text] OR " temporo-spatial"[text] OR "smoothness"[text] OR "fluidity"[text] OR " trajectory"[text]	1,683,059	TITLE-ABS (movement) OR TITLE-ABS (motor) OR TITLE-ABS (motion) OR TITLE-ABS (kinematic*) OR TITLE-ABS (biomechanic*) OR TITLE-ABS (instrumented AND measurement) OR TITLE-ABS (inertial) OR TITLE-ABS (sensors) OR TITLE-ABS (acceleromet*) OR TITLE-ABS (technolog*) OR TITLE-ABS (spatio-temporal) OR TITLE-ABS (temporo-spatial) OR TITLE-ABS (smoothness) OR TITLE-ABS (fluidity) OR TITLE-ABS (trajectory) AND (4,360,550	((((((((((((((((((((((TI=(Movement)) OR TI=(Motor)) OR TI=(Motion)) OR TI=(Kinematic*)) OR TI=(Biomechanic*)) OR TI=(Instrumented measurement)) OR TI=(Inertial)) OR TI=(Sensor*)) OR TI=(Acceleromet*)) OR TI=(technolog*)) OR TI=(spatio-temporal)) OR TI=(temporo-spatial)) OR TI=(smoothness)) OR TI=(fluidity)) OR TI=(trajectory)) OR AB=(Movement)) OR AB=(Motor)) OR AB=(Motion)) OR AB=(Kinematic*)) OR AB=(Biomechanic*)) OR AB=(Instrumented	5,204,053	"Movement"[text] OR Motor [text] OR Motion [text] OR "Kinematic**"[text] OR "Biomechanic**"[text] OR "Instrumented measurement"[text] OR "Inertial"[text] OR "Sensor**"[text] OR "Acceleromet**"[text] OR " technolog**"[text] OR " spatio-temporal"[text] OR " temporo-spatial "[text] OR "smoothness"[text] OR "fluidity"[text] OR " trajectory"[text]	151,807

				LIMIT-TO (DOCTYPE , "ar"))		measurement)) OR AB=(Inertial)) OR AB=(Sensor*)) OR AB=(Acceleromet*)) OR AB=(technolog*)) OR AB=(spatio-temporal)) OR AB=(temporo-spatial)) OR AB=(smoothness)) OR AB=(fluidity)) OR AB=(trajectory)			
10		#8 OR #9	2,023,656		4,360,550	#8 OR #9	5,204,053	#8 OR #9	154,958
11		#7 AND #10	22,881	#7 AND #10	13,790	#7 AND #10	12,506	#7 AND #10	5,140
	Mesh	"Cerebral Palsy"[Mesh] OR "Hemiplegia"[Mesh] OR "Quadriplegia"[Mesh]	39,892	/		/		"Cerebral Palsy"[Mesh] OR "Hemiplegia"[Mesh] OR "Quadriplegia"[Mesh]	2,307
	Free text	Cerebral Palsy [text] OR Hemipleg*[text] OR Hemiparesis [text] OR Quadripleg*[text] OR Tetrapleg*[text] OR Stroke[text] OR "Cerebrovascular accident" [text]	376,232	TITLE-ABS (cerebral AND palsy) OR TITLE-ABS (hemipleg*) OR TITLE-ABS (hemiparesis) OR TITLE-ABS (quadripleg*) OR TITLE-ABS (tetrapleg*) OR TITLE-ABS (stroke) OR TITLE-ABS (cerebrovascular AND accident) AND (LIMIT-TO (DOCTYPE , "ar"))	313,799	(((((TI=(hemipleg*)) OR TI=(cerebral palsy)) OR TI=(hemiparesis)) OR TI=(quadripleg*)) OR TI=(tetrapleg*) OR TI=(stroke)) OR TI=(cerebrovascular accident)) OR AB=(cerebral palsy)) OR AB=(hemiparesis)) OR AB=(hemipleg*) OR AB=(quadripleg*) OR AB=(tetrapleg*) OR AB=(stroke)) OR AB=(cerebrovascular accident)	361,541	Cerebral Palsy [text] OR Hemipleg*[text] OR Hemipares* [text] OR Quadripleg*[text] OR Tetrapleg*[text] OR Stroke[text] OR "Cerebrovascular accident" [text]	66,637
14		#12 OR #13	376,250	#12 OR #13	313,799	#12 OR #13	361,541	#12 OR #13	66,637
15		#11 AND #14	2,209	#11 AND #14	1,923	#11 AND #14	1,753	#11 AND #14	959
Combined			6,844						