

## Supplemental data

## &lt;Intra-rater Reliability&gt;

## Active

Rater A		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.6800564	0.3580712	0.8589037
	IP	0.7855799	0.540763	0.9086474
II	MP	0.8741722	0.7143233	0.947876
	PIP	0.7713559	0.5147124	0.9021399
	DIP	0.6988186	0.3888465	0.8680019
III	MP	0.6276308	0.2756332	0.8328685
	PIP	0.6594473	0.3250538	0.848778
	DIP	0.6831196	0.3630483	0.8603969
IV	MP	0.8318584	0.6288989	0.9294141
	PIP	0.743411	0.4648764	0.8891794
	DIP	0.8598629	0.6848923	0.9416876
V	MP	0.5493423	0.1614659	0.7922216
	PIP	0.7021944	0.3944582	0.8696269
	DIP	0.6899459	0.3742059	0.8637134
Rater B		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8862007	0.7395088	0.9530354
	IP	0.6530951	0.3150387	0.8456288
II	MP	0.6555448	0.3188921	0.8468449
	PIP	0.7344937	0.4493367	0.8849938
	DIP	0.8391801	0.6433377	0.9326439
III	MP	0.567618	0.1872195	0.801907
	PIP	0.7517422	0.4795515	0.8930679
	DIP	0.4331261	0.00919065	0.7276285
IV	MP	0.6240572	0.2701962	0.8310601
	PIP	0.5267883	0.1303953	0.7800977
	DIP	0.8648507	0.6950866	0.943851

Rater A		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8480852	0.6610888	0.9365522
	IP	0.8352648	0.6355992	0.9309186
II	MP	0.8114144	0.5893099	0.9203157
	PIP	0.5892857	0.218446	0.8132328
	DIP	0.9257553	0.8253291	0.9697322
III	MP	0.3255025	-0.1162303	0.6627603
	PIP	0.7191739	0.4230363	0.8777458
	DIP	0.8609726	0.6871544	0.9421695
IV	MP	0.8306116	0.6264539	0.9288626
	PIP	0.4047737	-0.0251971	0.7110358
	DIP	0.9265209	0.8270373	0.9700514
V	MP	0.3978972	-0.0333869	0.7069594
	PIP	0.5534117	0.167155	0.7943889
	DIP	0.8272727	0.6199264	0.9273836
Rater B		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.9088387	0.7880491	0.9626413
	IP	0.7675911	0.5078958	0.9004074
II	MP	0.8689244	0.7034638	0.9456129
	PIP	0.7230769	0.4296898	0.8795993
	DIP	0.8948362	0.7578467	0.9567156
III	MP	0.7223382	0.428428	0.8792489
	PIP	0.7814976	0.533238	0.9067858
	DIP	0.722172	0.4281443	0.87917
IV	MP	0.6894384	0.3733733	0.8634674
	PIP	0.476584	0.06392036	0.7524096
	DIP	0.8096282	0.5859009	0.9195152

Rater C	Dominant			
	ICC value	95% CI		
		Lower	Upper	
V	MP	0.7013706	0.3930866	0.8692307
	PIP	0.7924615	0.5535372	0.9117744
	DIP	0.8733333	0.7125822	0.9475147
I	MP	0.8391006	0.6431802	0.932609
	IP	0.4870806	0.07752244	0.7582803
II	MP	0.8075949	0.5820301	0.9186028
	PIP	0.6533997	0.3155172	0.8457801
	DIP	0.8110455	0.5886053	0.9201505
III	MP	0.7050819	0.3992765	0.871014
	PIP	0.2688148	-0.1770752	0.6264287
	DIP	0.7150367	0.4160183	0.8757759
IV	MP	0.5379771	0.1457124	0.7861361
	PIP	0.4565855	0.03842262	0.741102
	DIP	0.8654778	0.6963732	0.9441225
V	MP	0.461553	0.04470564	0.7439259
	PIP	0.2183669	-0.2285005	0.5927346
	DIP	0.7854146	0.5404576	0.9085721

Rater C	Non-Dominant			
	ICC value	95% CI		
		Lower	Upper	
V	MP	0.9134369	0.7980955	0.9645761
	PIP	0.6310402	0.2808415	0.8345897
	DIP	0.6266775	0.2741807	0.8323865
I	MP	0.8590504	0.6832381	0.9413346
	IP	0.7634806	0.5004901	0.8985111
II	MP	0.5848795	0.2120338	0.8109433
	PIP	0.6599625	0.3258693	0.8490329
	DIP	0.7643489	0.5020512	0.8989121
III	MP	0.6806508	0.3590355	0.8591936
	PIP	0.6201651	0.2643002	0.8290855
	DIP	0.67924	0.3567477	0.8585052
IV	MP	0.8762452	0.7186345	0.9487679
	PIP	0.5889423	0.2179451	0.8130546
	DIP	0.6849308	0.3659998	0.8612783
V	MP	0.806539	0.5800239	0.9181284
	PIP	0.254122	-0.1923083	0.6167514
	DIP	0.5878389	0.2163371	0.8124818

**Passive**

Rater A	Dominant			
	ICC value	95% CI		
		Lower	Upper	
I	MP	0.896941	0.7623493	0.9576096
	IP	0.8735847	0.7131037	0.947623
II	MP	0.8173365	0.6006691	0.9229635
	PIP	0.7883319	0.5458579	0.9098995
	DIP	0.761915	0.4976795	0.8977875
III	MP	0.773202	0.5180669	0.9029878
	PIP	0.5438341	0.1538061	0.7892783
	DIP	0.9389004	0.8549153	0.9751915
IV	MP	0.7902368	0.5493951	0.910765

Rater A	Non-Dominant			
	ICC value	95% CI		
		Lower	Upper	
I	MP	0.9443974	0.8674516	0.9774614
	IP	0.6217915	0.2667607	0.8299113
II	MP	0.7579618	0.4906074	0.8959571
	PIP	0.786783	0.5429882	0.9091951
	DIP	0.857094	0.6792623	0.9404837
III	MP	0.8114812	0.5894376	0.9203457
	PIP	0.5338785	0.1400796	0.7839297
	DIP	0.897019	0.7625164	0.9576427
IV	MP	0.8066499	0.5802344	0.9181783

		PIP	0.7771697	0.5253031	0.9048069			PIP	0.5721669	0.193712	0.8042988
		DIP	0.8894828	0.7464529	0.9544364			DIP	0.8531544	0.671288	0.9387672
V	MP	0.5770548	0.2007255	0.8068605	V	MP	0.7361944	0.452287	0.8857939		
		PIP	0.2809941	-0.164284	0.6343678			PIP	0.5552479	0.1697305	0.7953648
		DIP	0.673746	0.3478751	0.8558181			DIP	0.7620474	0.497917	0.8978487
Rater B		Dominant			Rater B		Non-Dominant				
		ICC value	95% CI				ICC value	95% CI			
			Lower	Upper				Lower	Upper		
I	MP	0.9781591	0.9466527	0.9912372	I	MP	0.9703596	0.9280115	0.9880799		
		IP	0.7770613	0.525105	0.9047572			IP	0.4922114	0.08422712	0.761134
II	MP	0.8422018	0.6493376	0.9339726	II	MP	0.8929712	0.7538679	0.9559225		
		PIP	0.7884837	0.5461395	0.9099685			PIP	0.4009009	-0.02981669	0.7087425
		DIP	0.7630923	0.4997925	0.8983317			DIP	0.7978723	0.5636607	0.9142234
III	MP	0.9163544	0.8045032	0.9658008	III	MP	0.8408676	0.6466854	0.9333862		
		PIP	0.701607	0.3934802	0.8693444			PIP	0.8601071	0.6853897	0.9417937
		DIP	0.7400931	0.4590743	0.8876248			DIP	0.7853938	0.540419	0.9085626
IV	MP	0.7837533	0.5373911	0.907815	IV	MP	0.8294716	0.624222	0.9283579		
		PIP	0.6130346	0.253567	0.8254545			PIP	0.836106	0.6372583	0.9312897
		DIP	0.9522055	0.8854282	0.9806725			DIP	0.7784769	0.5276952	0.9054052
V	MP	0.8412698	0.6474845	0.9335631	V	MP	0.760868	0.4958031	0.8973032		
		PIP	0.7765656	0.524199	0.9045302			PIP	0.7254335	0.4337226	0.8807161
		DIP	0.843299	0.651522	0.9344544			DIP	0.774954	0.5212577	0.9037916
Rater C		Dominant			Rater C		Non-Dominant				
		ICC value	95% CI				ICC value	95% CI			
			Lower	Upper				Lower	Upper		
I	MP	0.7731718	0.5180119	0.902974	I	MP	0.9071274	0.7843264	0.9619199		
		IP	0.7269985	0.4364071	0.8814568			IP	0.69371	0.3803978	0.8655358
II	MP	0.6513761	0.3123415	0.8447743	II	MP	0.7548749	0.4851095	0.8945246		
		PIP	0.2362222	-0.21058	0.6048119			PIP	0.7311067	0.4434791	0.8833976
		DIP	0.6146676	0.2560173	0.8262876			DIP	0.7314939	0.4441475	0.8835803
III	MP	0.8801346	0.7267559	0.9504383	III	MP	0.7940195	0.556445	0.9124804		
		PIP	0.2001066	-0.2465196	0.5802067			PIP	0.7252503	0.4334085	0.8806293
		DIP	0.5075648	0.10451354	0.7696117			DIP	0.7569458	0.4887955	0.895486
IV	MP	0.6048306	0.2413264	0.8212549	IV	MP	0.8851246	0.7372387	0.9525753		
		PIP	0.7361111	0.4521424	0.8857548			PIP	0.6229954	0.268585	0.8305219
		DIP	0.7986382	0.5650994	0.9145694			DIP	0.8996901	0.7682501	0.9587755
V	MP	0.6087897	0.247219	0.8232845	V	MP	0.7760242	0.5232103	0.9042822		
		PIP	0.2351402	-0.2116745	0.6040848			PIP	0.2855883	-0.1594198	0.6373433

	DIP	0.6545024	0.3172511	0.8463277
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	DIP	0.4740355	0.06064085	0.7509777
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**Composite**

Rater A		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.6588247	0.3240687	0.8484699
	IP	0.7647357	0.5027473	0.8990907
II	MP	0.8692001	0.7040322	0.945732
	PIP	0.7512607	0.4786992	0.8928437
	DIP	0.7049779	0.3991027	0.8709641
III	MP	0.7726533	0.5170691	0.9027359
	PIP	0.6745182	0.3491186	0.8561963
	DIP	0.761857	0.4975756	0.8977607
IV	MP	0.8563639	0.6777812	0.9401659
	PIP	0.7630501	0.4997167	0.8983122
	DIP	0.9001769	0.7692973	0.9589818
V	MP	0.7596514	0.4936258	0.89674
	PIP	0.7416344	0.4617667	0.8883474
	DIP	0.664368	0.3328637	0.8512084
Rater B		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.9414579	0.8607356	0.9762485
	IP	0.7919819	0.5526432	0.9115569
II	MP	0.6593162	0.3248462	0.8487132
	PIP	0.9215085	0.8158872	0.967959
	DIP	0.6066486	0.244029	0.8221876
III	MP	0.9164835	0.8047873	0.9658549
	PIP	0.6985722	0.3884378	0.8678831
	DIP	0.8060009	0.5790025	0.9178866
IV	MP	0.7125245	0.4117741	0.8745772
	PIP	0.8415113	0.6479644	0.9336692
	DIP	0.6616193	0.3284955	0.8498518

Rater A		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.7323141	0.4455644	0.883967
	IP	0.8049463	0.5770031	0.9174124
II	MP	0.6597621	0.325552	0.8489338
	PIP	0.6507852	0.3114154	0.8444803
	DIP	0.9074114	0.7849435	0.9620396
III	MP	0.7431907	0.4644903	0.8890762
	PIP	0.5623622	0.1797592	0.7991342
	DIP	0.720686	0.720686	0.8784645
IV	MP	0.8664143	0.6982965	0.9445278
	PIP	0.7133277	0.4131297	0.8749607
	DIP	0.8854643	0.7379549	0.9527206
V	MP	0.6083899	0.2466228	0.8230798
	PIP	0.7237092	0.4307706	0.8798991
	DIP	0.8375643	0.6401393	0.9319325
Rater B		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8356998	0.6364569	0.9311105
	IP	0.8010649	0.5696671	0.9156644
II	MP	0.6769848	0.3530985	0.8574033
	PIP	0.8774022	0.7210459	0.9492652
	DIP	0.8456778	0.6562693	0.9354978
III	MP	0.7334069	0.4474544	0.884482
	PIP	0.7790364	0.5287202	0.9056611
	DIP	0.664075	0.3323973	0.8510638
IV	MP	0.8075949	0.5820301	0.9186028
	PIP	0.8000809	0.5678133	0.9152206
	DIP	0.8768923	0.7199827	0.9490461

Rater C		Dominant		
		ICC value	95% CI	
			Lower	Upper
V	MP	0.5069798	0.10373439	0.7692904
	PIP	0.7623041	0.4983775	0.8979674
	DIP	0.7002976	0.3913023	0.8687143
I	MP	0.390582	-0.04203606	0.7026002
	IP	0.6963708	0.3847918	0.8668213
II	MP	0.4924911	0.08459376	0.7612893
	PIP	0.8434171	0.6517574	0.9345062
	DIP	0.8238022	0.6131716	0.9258429
III	MP	0.868987	0.7035928	0.94564
	PIP	0.6475597	0.3063725	0.8428736
	DIP	0.5333494	0.1393543	0.7836443
IV	MP	0.7479141	0.4727895	0.8912838
	PIP	0.6290098	0.2777372	0.8335651
	DIP	0.7103166	0.4080548	0.873522
V	MP	0.7551897	0.4856691	0.8946708
	PIP	0.4540019	0.03516784	0.7396293
	DIP	0.905383	0.7805408	0.9611837

Rater C		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
V	MP	0.7673355	0.5074341	0.9002897
	PIP	0.5923708	0.2229547	0.8148317
	DIP	0.6673192	0.3375696	0.8526621
I	MP	0.7199643	0.4243811	0.8781215
	IP	0.8582011	0.6815107	0.9409653
II	MP	0.8624123	0.6900943	0.9427942
	PIP	0.5640535	0.1821552	0.8000276
	DIP	0.7312859	0.4437884	0.8834822
III	MP	0.9012408	0.7715884	0.9594323
	PIP	0.678269	0.3551754	0.858031
	DIP	0.1567123	-0.2881366	0.5496957
IV	MP	0.6077543	0.2456754	0.8227542
	PIP	0.6604255	0.3266027	0.8492618
	DIP	0.8321497	0.6294706	0.9295429
V	MP	0.546505	0.1575145	0.7907069
	PIP	0.4976612	0.09138943	0.7641538
	DIP	0.3118079	-0.1312393	0.6541264

<Inter-rater Reliability>

Active

		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8617902	0.7650275	0.933487
	IP	0.5525045	0.3548709	0.7497863
II	MP	0.5904946	0.394323	0.7766244
	PIP	0.6529418	0.4819809	0.8137424
	DIP	0.694381	0.5139533	0.8436307
III	MP	0.508661	0.324014	0.7133562
	PIP	0.5321636	0.348056	0.7309696
	DIP	0.6243689	0.4381619	0.7977214
IV	MP	0.5993582	0.4203456	0.7784393
	PIP	0.4105257	0.2279483	0.6359293
	DIP	0.7134584	0.5282507	0.8569769
V	MP	0.6007852	0.4125409	0.7817466

		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8304993	0.7176497	0.9171638
	IP	0.5720461	0.3227489	0.7782562
II	MP	0.591455	0.4060384	0.7743691
	PIP	0.4873438	0.2976591	0.6984504
	DIP	0.8180404	0.6967625	0.9109206
III	MP	0.4064531	0.221462	0.6322389
	PIP	0.5062459	0.3008043	0.7181219
	DIP	0.6780643	0.4918794	0.8341292
IV	MP	0.5375548	0.3310617	0.741593
	PIP	0.3415477	0.170885	0.5717233
	DIP	0.7421054	0.589237	0.8689719
V	MP	0.5227733	0.3253905	0.7278167

	PIP	0.3772676	0.2011764	0.6048014
	DIP	0.4729228	0.2786433	0.6888702

	PIP	0.3589098	0.1849116	0.5878429
	DIP	0.5956855	0.4156803	0.776194

**Passive**

		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.6521181	0.4153287	0.8280921
	IP	0.5749498	0.3896686	0.7624985
II	MP	0.3991651	0.1505812	0.6555713
	PIP	0.2354399	0.0770277	0.4668182
	DIP	0.4951608	0.2488587	0.7238847
III	MP	0.3209458	0.10179087	0.5815174
	PIP	0.2372115	0.07699923	0.4698039
	DIP	0.3987346	0.2048547	0.6295943
IV	MP	0.284303	0.08746841	0.537716
	PIP	0.2827332	0.10067241	0.5254382
	DIP	0.6764762	0.4401868	0.8434467
V	MP	0.3814416	0.1499716	0.6338458
	PIP	0.167542	0.04533691	0.3728584
	DIP	0.5790717	0.3740415	0.7709996

		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.8553296	0.7269516	0.934168
	IP	0.474619	0.2724082	0.6930269
II	MP	0.562346	0.2942874	0.7767975
	PIP	0.3638446	0.170391	0.6006235
	DIP	0.5177485	0.2781962	0.7377369
III	MP	0.5133886	0.2485411	0.7427928
	PIP	0.5123069	0.3133706	0.7204992
	DIP	0.5164169	0.2561705	0.7434064
IV	MP	0.5169357	0.2286186	0.752647
	PIP	0.5192877	0.3329997	0.7217595
	DIP	0.7180296	0.5201642	0.862295
V	MP	0.4134821	0.203243	0.6485743
	PIP	0.3827537	0.2057192	0.6100411
	DIP	0.6015168	0.4226933	0.7798799

**Composite**

		Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.63101	0.4542247	0.7999803
	IP	0.5594481	0.3750543	0.7514276
II	MP	0.5112358	0.3266297	0.7154029
	PIP	0.6767437	0.5088104	0.8291502
	DIP	0.432263	0.2438308	0.6545946
III	MP	0.7647124	0.6142067	0.8829178
	PIP	0.6015047	0.4225155	0.7798927
	DIP	0.4605628	0.2713798	0.6774096
IV	MP	0.5945151	0.4133021	0.7754516
	PIP	0.6704163	0.5026759	0.8248641
	DIP	0.5243316	0.3217931	0.7306262
V	MP	0.5013192	0.3037355	0.7117728

		Non-Dominant		
		ICC value	95% CI	
			Lower	Upper
I	MP	0.731254	0.5788515	0.8618773
	IP	0.4912036	0.3062871	0.7003144
II	MP	0.5458494	0.3533564	0.7433739
	PIP	0.6756861	0.5094742	0.8280946
	DIP	0.5238059	0.3335414	0.7263407
III	MP	0.6148097	0.4249375	0.7920157
	PIP	0.6619547	0.4902418	0.8200131
	DIP	0.3505707	0.1775674	0.580096
IV	MP	0.5702176	0.3705269	0.7631804
	PIP	0.7075913	0.5451451	0.8484737
	DIP	0.6659175	0.4886653	0.8239786
V	MP	0.5153398	0.2993221	0.7283689

	PIP	0.5492863	0.3629929	0.7440838		PIP	0.5490726	0.365261	0.7432845
	DIP	0.4722922	0.2708118	0.6909731		DIP	0.5226063	0.327999	0.7268068

Note: ICC, Intraclass Correlation Coefficients; CI, Confidence Interval; I, thumb; II, index finger; III, middle finger; IV, ring finger; V, little finger; MP, Metacarpo Phalangeal joint; PIP, Proximal InterPhalangeal joint; DIP, Distal InterPhalangeal joint.