

TABLE E-1 Intraobserver Reliability of the Mallet Classification and Toronto Test Score (agreement between sessions)*

	1-6 months			6-24 months			2-5 years			6-15 years		
	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa
Mallet												
ABD	0.50	0.91	0.71	0.85	0.57	0.71	0.90	0.80	0.85	1.00	0.91	0.96
ER	0.45	0.88	0.67	0.74	0.60	0.67	1.00	0.68	0.84	0.73	0.55	0.64
HN	0.77	0.50	0.64	0.72	0.84	0.78	0.82	0.77	0.80	0.69	0.69	0.69
HS	0.80	0.71	0.76	0.80	0.70	0.75	1.00	0.62	0.81	0.83	0.87	0.85
HM	1.00	1.00	1.00	0.71	0.79	0.75	0.68	0.70	0.69	0.67	0.62	0.65
Toronto												
EF	1.00	0.68	0.84	0.52	0.91	0.72	0.90	1.00	0.95	1.00	0.64	0.82
EE	0.63	0.47	0.55	0.59	0.70	0.65	0.69	0.58	0.64	0.74	0.82	0.78
WE	0.90	0.88	0.89	0.69	0.81	0.75	0.62	0.77	0.70	0.87	0.77	0.82
FE	0.80	0.86	0.83	1.00	1.00	1.00	0.94	0.60	0.77	0.84	0.78	0.81
TE	0.40	0.82	0.61	0.74	1.00	0.87	0.61	0.39	0.50	1.00	0.78	0.89

Obs 1 = observer 1; Obs 2 = observer 2. Mallet: ABD = global abduction, ER = global external rotation, HN = hand to neck, HS = hand on spine, HM = hand to mouth. Toronto: EF = elbow flexion, EE = elbow extension, WE = wrist extension, FE = finger extension, TE = thumb extension. * Kappa values: 0.00-0.20 = slight, 0.21-0.40 = fair, 0.41-0.60 = good, 0.61-0.80 = excellent, 0.81-1.00 = almost perfect.

TABLE E-2 Intraobserver Reliability of the Hospital for Sick Children Active Movement Scale (agreement between sessions)*

	1-6 months			6-24 months			2-5 years			6-15 years		
	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa	Obs 1	Obs 2	Mean Kappa
Task												
SF	0.87	0.71	0.79	0.90	0.84	0.87	1.00	0.82	0.90	1.00	1.00	1.00
SABD	0.86	0.79	0.83	0.85	0.84	0.85	1.00	0.65	0.83	1.00	1.00	1.00
SADD	0.82	0.48	0.65	0.88	1.00	0.94	1.00	1.00	1.00	1.00	1.00	1.00
IR	0.58	0.50	0.54	0.69	1.00	0.85	0.72	1.00	0.86	1.00	1.00	1.00
ER	0.62	1.00	0.81	0.71	0.79	0.75	0.80	0.82	0.81	1.00	0.84	0.92
EF	0.92	0.70	0.81	1.00	0.72	0.86	1.00	1.00	1.00	1.00	1.00	1.00
EE	0.85	0.68	0.77	0.69	0.40	0.55	1.00	0.48	0.74	1.00	0.83	0.92
FP	1.00	0.88	0.94	1.00	0.62	0.81	1.00	0.75	0.88	1.00	0.64	0.82
FS	0.79	0.80	0.80	0.70	0.63	0.67	0.63	0.44	0.54	1.00	0.84	0.92
WF	0.80	0.64	0.72	0.80	1.00	0.90	1.00	0.75	0.88	1.00	0.84	0.92
WE	0.55	0.72	0.64	0.81	0.76	0.79	0.82	1.00	0.91	0.78	1.00	0.89
FF	1.00	1.00	1.00	0.80	1.00	0.90	1.00	1.00	1.00	1.00	0.84	0.92
FIS	0.85	1.00	0.93	0.85	0.89	0.87	0.80	0.45	0.63	1.00	1.00	1.00
TF	1.00	0.82	0.91	0.88	0.65	0.77	1.00	1.00	1.00	1.00	0.88	0.94
TE	0.70	0.90	0.80	0.84	0.80	0.82	1.00	0.54	0.77	0.65	1.00	0.83

Obs 1 = observer 1; Obs 2 = observer 2. SF = shoulder flexion, SABD = shoulder abduction, SADD = shoulder adduction, IR = internal rotation, ER = external rotation, EF = elbow flexion, EE = elbow extension, FP = forearm pronation, FS = forearm supination, WF = wrist flexion, WE = wrist extension, FF = finger flexion, FIS = finger supination, TF = thumb flexion, TE = thumb extension.

* Kappa values: 0.00-0.20 = slight, 0.21-0.40 = fair, 0.41-0.60 = good, 0.61-0.80 = excellent, 0.81-1.00 = almost perfect.

TABLE E-3 Interobserver Reliability of the Mallet Classification and Toronto Test Score (agreement between observers)*

	1-6 months			6-24 months			2-5 years			6-15 years		
	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa
Mallet												
ABD	0.37	0.55	0.46	0.37	0.49	0.43	0.76	0.80	0.78	0.91	0.82	0.87
ER	0.40	0.46	0.43	0.24	0.48	0.36	0.48	0.30	0.39	0.25	0.38	0.32
HN	0.30	0.40	0.35	0.40	0.44	0.42	0.25	0.39	0.32	0.49	0.50	0.50
HS	0.35	0.39	0.37	0.61	0.31	0.46	0.24	0.25	0.25	0.26	0.34	0.30
HM	0.50	0.52	0.51	0.63	0.36	0.50	0.39	0.21	0.30	0.45	0.32	0.39
Toronto												
EF	0.45	0.56	0.50	0.18	0.35	0.28	0.21	0.40	0.30	0.44	0.31	0.38
EE	0.20	0.22	0.21	0.45	0.61	0.53	0.45	0.49	0.47	0.34	0.34	0.34
WE	0.70	0.68	0.69	0.60	0.50	0.55	0.68	0.44	0.56	0.42	0.36	0.39
FE	0.55	0.40	0.48	0.56	0.55	0.56	0.69	0.60	0.65	0.68	0.56	0.62
TE	0.30	0.45	0.38	0.76	0.83	0.80	0.70	0.77	0.74	0.84	0.63	0.74

Mallet: ABD = global abduction, ER = global external rotation, HN = hand to neck, HS = hand on spine, HM = hand to mouth. Toronto: EF = elbow flexion, EE = elbow extension, WE = wrist extension, FE = finger extension, TE = thumb extension. * Kappa values: 0.00-0.20 = slight, 0.21-0.40 = fair, 0.41-0.60 = good, 0.61-0.80 = excellent, 0.81-1.00 = almost perfect.

TABLE E-4 Interobserver Reliability on the Hospital for Sick Children Active Movement Scale (agreement between observers)*

	1-6 months			6-24 months			2-5 years			6-15 years		
	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa	Session 1	Session 2	Mean Kappa
Task												
SF	0.34	0.48	0.41	0.70	0.78	0.74	0.65	0.64	0.65	0.84	0.84	0.84
SABD	0.35	0.62	0.49	0.42	0.46	0.44	1.00	0.65	0.83	0.82	0.84	0.83
SADD	0.34	0.77	0.56	0.80	1.00	0.90	0.80	0.82	0.81	1.00	1.00	1.00
IR	0.40	0.42	0.41	0.50	0.54	0.52	0.54	0.58	0.56	1.00	1.00	1.00
ER	0.55	0.40	0.48	0.35	0.37	0.36	0.20	0.72	0.46	0.70	0.72	0.71
EF	0.52	0.52	0.52	0.51	0.53	0.52	0.78	0.70	0.74	1.00	1.00	1.00
EE	0.42	0.44	0.43	0.23	0.21	0.22	0.28	0.64	0.46	0.75	0.68	0.72
FP	0.50	0.54	0.52	0.60	0.72	0.66	0.58	0.64	0.61	0.64	0.64	0.64
FS	0.68	0.74	0.71	0.24	0.36	0.30	0.24	0.44	0.34	1.00	0.85	0.93
WF	0.64	0.64	0.64	0.60	0.65	0.63	1.00	0.90	0.95	0.84	0.80	0.82
WE	0.50	0.55	0.53	0.56	0.52	0.54	0.66	0.77	0.72	0.80	0.80	0.80
FF	1.00	0.80	0.90	0.65	0.78	0.72	0.80	0.82	0.81	1.00	0.90	0.95
FE	0.40	0.42	0.41	0.50	0.74	0.62	0.65	0.68	0.67	0.82	0.82	0.82
TF	0.80	1.00	0.90	0.45	0.80	0.63	1.00	1.00	1.00	1.00	0.87	0.94
TE	0.25	0.26	0.26	0.48	0.68	0.58	0.68	0.64	0.66	0.80	0.82	0.81

SF = shoulder flexion, SABD = shoulder abduction, SADD = shoulder adduction, IR = internal rotation, ER = external rotation, EF = elbow flexion, EE = elbow extension, FP = forearm pronation, FS = forearm supination, WF = wrist flexion, WE = wrist extension, FF = finger flexion, FE = finger extension, TF = thumb flexion, TE = thumb extension. * Kappa values: 0.00-0.20 = slight, 0.21-0.40 = fair, 0.41-0.60 = good, 0.61-0.80 = excellent, 0.81-1.00 = almost perfect.

TABLE E-5 Correlations of Aggregate Mallet and Total Toronto Test Scores*

Comparison	Aggregate Mallet Score (Pearson r)	Total Toronto Test Score (Pearson r)
Age 1-6 months		
Observer 1, session 1 vs. 2	0.90	0.93
Observer 2, session 1 vs. 2	0.97	0.96
Session 1, obs 1 vs. obs 2	0.80	0.77
Session 2, obs 1 vs. obs 2	0.77	0.84
Age 6-24 months		
Observer 1, session 1 vs. 2	0.91	0.95
Observer 2, session 1 vs. 2	0.96	0.98
Session 1, obs 1 vs. obs 2	0.78	0.88
Session 2, obs 1 vs. obs 2	0.83	0.93
Age 2-5 years		
Observer 1, session 1 vs. 2	0.97	0.92
Observer 2, session 1 vs. 2	0.97	0.81
Session 1, obs 1 vs. obs 2	0.82	0.83
Session 2, obs 1 vs. obs 2	0.78	0.80
Age 6-15 years		
Observer 1, session 1 vs. 2	0.91	0.97
Observer 2, session 1 vs. 2	0.80	0.84
Session 1, obs 1 vs. obs 2	0.71	0.82
Session 2, obs 1 vs. obs 2	0.72	0.70

* $p < 0.001$ for all Pearson product-moment correlation coefficients shown above.

TABLE E-6 Inter-and Intraobserver Comparisons of Mallet and Toronto Test Scores*

Age-group	Session	Aggregate Mallet Score Mean $\pm$ SD		Total Toronto Test Score Mean $\pm$ SD	
		Observer 1	Observer 2	Observer 1	Observer 2
1-6 months [§]	First	7.7 $\pm$ 1.8	7.6 $\pm$ 2.5	5.6 $\pm$ 2.2	4.7 $\pm$ 2.7
	Second	7.8 $\pm$ 1.6	7.3 $\pm$ 2.7	5.2 $\pm$ 2.3	4.6 $\pm$ 2.5
6-24 months [§]	First	9.4 $\pm$ 1.8	10.2 $\pm$ 2.2	6.9 $\pm$ 2.6	7.2 $\pm$ 2.8
	Second	9.3 $\pm$ 2.0	10.1 $\pm$ 2.5	7.1 $\pm$ 2.5	7.4 $\pm$ 2.4
2-5 years	First	14.1 $\pm$ 2.5	14.9 $\pm$ 3.4	8.3 $\pm$ 2.2	8.7 $\pm$ 1.6
	Second	14.3 $\pm$ 2.6	14.7 $\pm$ 3.3	8.5 $\pm$ 2.0	8.7 $\pm$ 1.5
6-15 years	First	16.8 $\pm$ 1.6	16.5 $\pm$ 1.8	8.7 $\pm$ 1.8	8.7 $\pm$ 1.6
	Second	16.5 $\pm$ 1.9	16.7 $\pm$ 1.9	8.9 $\pm$ 1.5	8.9 $\pm$ 1.7

*Paired *t*-tests indicated no significant differences in aggregate Mallet score or total Toronto Test score between the two observers on either session or between sessions for either observer ($p > 0.05$).[§]Hand on spine was not included in determining aggregate Mallet score. SD = standard deviation.