

**Supplemental Table 1.** Summary of subject participation at baseline, 3-7 days, 3, 6, 8, 12, 18 and 24 months

		Base- line	3-7 Days	3 months	6 months	9 months	12 months	18 months	24 months
EIM	DMD ≤7	18	5/28%	11/61%	13/72%	8/44%	11/61%	10/56%	5/28%
	DMD >7	18	8/44%	10/56%	11/61%	7/39%	11/61%	9/50%	11/61%
	DMD All	36	13/36%	21/58%	24/67%	15/42%	22/61%	19/53%	16/44%
	Control ≤7	16	13/81%	13/81%	15/94%	11/69%	14/88%	11/69%	11/69%
	Control >7	13	11/85%	11/85%	12/92%	13/100%	13/100%	13/100%	11/85%
	Control All	29	24/83%	24/83%	27/93%	24/83%	27/93%	24/83%	22/76%
US- GSL	DMD ≤7	19	6/32%	10/53%	14/74%	8/42%	13/68%	10/53%	5/26%
	DMD >7	16	8/50%	10/63%	10/63%	8/50%	9/56%	8/50%	11/69%
	DMD All	35	14/40%	20/57%	24/69%	16/46%	22/63%	18/51%	16/46%
	Control ≤7	15	12/80%	13/87%	14/93%	12/80%	14/93%	12/80%	11/73%
	Control >7	13	10/77%	12/92%	12/92%	13/100%	13/100%	13/100%	12/92%
	Control All	28	22/79%	25/89%	26/93%	25/89%	27/96%	25/89%	23/82%
US- GSL	DMD ≤7	19	6/32%	10/53%	14/74%	8/42%	13/68%	10/53%	5/26%
	DMD >7	16	8/50%	10/63%	10/63%	8/50%	9/56%	8/50%	11/69%
	DMD All	35	14/40%	20/57%	24/69%	16/46%	22/63%	18/51%	16/46%
	Control ≤7	15	12/80%	13/87%	14/93%	12/80%	14/93%	12/80%	11/73%
	Control >7	13	10/77%	12/92%	12/92%	13/100%	13/100%	13/100%	12/92%
	Control All	28	22/79%	25/89%	26/93%	25/89%	27/96%	25/89%	23/82%
6MWT	DMD ≤7	10	0/0%	3/30%	4/40%	2/20%	4/40%	5/50%	2/20%
	DMD >7	6	1/17%	4/67%	3/50%	2/33%	3/50%	2/33%	2/33%
	DMD All	16	1/6%	7/44%	7/44%	4/25%	7/44%	7/44%	4/25%
	Control ≤7	11	0/0%	8/73%	9/82%	6/55%	10/91%	9/82%	9/82%
	Control >7	13	1/8%	11/85%	11/85%	10/77%	8/62%	9/69%	12/92%
	Control All	24	1/4%	19/79%	20/83%	16/67%	18/75%	18/75%	21/88%
Supine- To- Stand	DMD ≤7	16	0/0%	8/50%	10/63%	7/44%	10/63%	8/50%	3/19%
	DMD >7	7	1/14%	5/71%	3/43%	3/43%	4/57%	3/43%	2/29%
	DMD All	23	1/4%	13/57%	13/57%	10/43%	14/61%	11/48%	5/22%
	Control ≤7	15	0/0%	12/80%	13/87%	10/67%	12/80%	12/80%	10/67%
	Control >7	13	1/8%	11/85%	11/85%	10/77%	8/62%	11/85%	12/92%
	Control All	28	1/4%	23/82%	24/86%	20/71%	20/71%	23/82%	22/79%

Number of subjects at each visit/percentage of baseline subjects

Supplemental Table 2. Full Data Set

Older Boys 100/300 Phase Ratio*	6 months			9 months			12 months			18 months			24 months		
	Slope Difference	p-value	95%CI	Slope Difference	p-value	95%CI	Slope Difference	p-value	95%CI	Slope Difference	p-value	95%CI	Slope Difference	p-value	95%CI
Deltoid	-0.0678	0.10	[0.013,-0.15]	<b>-0.076</b>	<b>0.028</b>	<b>[-0.009,-0.14]</b>	-0.031	0.178	[0.014,-0.076]	<b>-0.043</b>	<b>0.011<sup>§</sup></b>	<b>[-0.012,-0.074]</b>	<b>-0.042</b>	<b>0.00070<sup>§</sup></b>	<b>[-0.02,-0.064]</b>
Biceps	-0.073	0.14	[0.021,-0.17]	<b>-0.081</b>	<b>0.0077<sup>§</sup></b>	<b>[-0.024,-0.14]</b>	<b>-0.051</b>	<b>0.013</b>	<b>[-0.012,-0.09]</b>	<b>-0.050</b>	<b>0.002<sup>§</sup></b>	<b>[-0.021,-0.079]</b>	<b>-0.044</b>	<b>0.0011<sup>§</sup></b>	<b>[-0.02,-0.068]</b>
Forearm flexors Upper extremity average	<b>-0.10</b>	<b>0.017</b>	<b>[-0.018,-0.18]</b>	<b>-0.11</b>	<b>0.00040<sup>§</sup></b>	<b>[-0.051,-0.17]</b>	<b>-0.080</b>	<b>&lt;0.00010<sup>§</sup></b>	<b>[-0.047,-0.11]</b>	<b>-0.061</b>	<b>0.00010<sup>§</sup></b>	<b>[-0.034,-0.088]</b>	<b>-0.061</b>	<b>0.00020<sup>§</sup></b>	<b>[-0.034,-0.088]</b>
Quadriceps	-0.023	0.51	[0.046,-0.092]	-0.021	0.38	[0.024,-0.066]	-0.0038	0.84	[0.031,-0.039]	0.0006	0.97	[-0.035,0.036]	-0.0097	0.44	[0.016,-0.035]
Tibialis anterior	0.024	0.59	[-0.062,0.11]	-0.0041	0.88	[0.047,-0.055]	0.014	0.51	[-0.025,0.053]	-0.0171	0.34	[0.018,-0.052]	<b>-0.040</b>	<b>0.0067%</b>	<b>[-0.013,-0.067]</b>
Gastrocnemius Lower extremity average	-0.064	0.25	[0.044,-0.17]	-0.020	0.59	[0.051,-0.091]	-0.024	0.34	[0.027,-0.075]	-0.015	0.52	[0.028,-0.058]	-0.029	0.099	[0.004,-0.062]
Six-muscle average	-0.029	0.38	[0.036,-0.094]	-0.024	0.25	[0.017,-0.065]	-0.0059	0.72	[0.025,-0.037]	-0.015	0.33	[0.014,-0.044]	<b>-0.028</b>	<b>0.026</b>	<b>[-0.004,-0.052]</b>
	-0.052	0.055	[-0.001,-0.10]	<b>-0.051</b>	<b>0.0073<sup>§</sup></b>	<b>[-0.016,-0.086]</b>	<b>-0.029</b>	<b>0.041</b>	<b>[-0.002,-0.056]</b>	<b>-0.033</b>	<b>0.020</b>	<b>[-0.008,-0.058]</b>	<b>-0.038</b>	<b>0.00030%</b>	<b>[-0.019,-0.057]</b>
<b>Older Boys Phase Slope<sup>†</sup></b>															
Deltoid	0.097	0.68	[-0.35,0.55]	0.19	0.30	[-0.16,0.54]	0.15	0.18	[-0.066,0.37]	0.14	0.11	[-0.032,0.31]	0.13	0.054	[0.003,0.26]
Biceps	-0.041	0.90	[0.63,-0.71]	0.13	0.50	[-0.24,0.50]	0.12	0.32	[-0.12,0.36]	0.13	0.18	[-0.062,0.32]	0.11	0.14	[-0.033,0.25]
Forearm flexors Upper extremity average	0.22	0.45	[-0.35,0.79]	0.27	0.18	[-0.12,0.66]	<b>0.25</b>	<b>0.030</b>	<b>[0.034,0.47]</b>	<b>0.24</b>	<b>0.0023<sup>§</sup></b>	<b>[0.095,0.39]</b>	<b>0.24</b>	<b>0.00080<sup>§</sup></b>	<b>[0.11,0.37]</b>
Quadriceps	0.069	0.77	[-0.40,0.54]	0.19	0.23	[-0.10,0.48]	0.16	0.068	[-0.012,0.33]	<b>0.16</b>	<b>0.026</b>	<b>[0.021,0.30]</b>	<b>0.16</b>	<b>0.0082<sup>§</sup></b>	<b>[0.046,0.27]</b>
Quadriceps	-0.076	0.65	[0.26,-0.41]	-0.078	0.50	[0.14,-0.29]	-0.13	0.10	[0.021,-0.28]	-0.069	0.33	[0.07,-0.21]	-0.0045	0.93	[0.10,-0.11]
Tibialis anterior	-0.29	0.43	[0.42,-1.00]	-0.34	0.12	[0.072,-0.75]	-0.27	0.11	[0.044,-0.58]	0.0076	0.95	[-0.25,0.26]	0.081	0.42	[-0.11,0.27]
Gastrocnemius Lower extremity average	0.17	0.59	[-0.46,0.80]	0.035	0.86	[-0.36,0.43]	-0.020	0.86	[0.20,-0.24]	-0.060	0.48	[0.11,-0.23]	0.0028	0.97	[-0.13,0.13]
Six-muscle average	-0.034	0.88	[0.40,-0.47]	-0.079	0.55	[0.18,-0.33]	-0.12	0.17	[0.045,-0.29]	-0.030	0.68	[0.11,-0.17]	0.037	0.50	[-0.071,0.15]
	0.015	0.94	[-0.40,0.43]	0.057	0.68	[-0.21,0.33]	0.044	0.59	[-0.12,0.20]	0.076	0.25	[-0.051,0.20]	0.091	0.086	[-0.011,0.19]
<b>Younger Boys 100/300Phase Ratio*</b>															
Deltoid	-0.0021	0.96	[0.072,-0.077]	0.0030	0.93	[-0.06,0.066]	0.0061	0.78	[-0.037,0.049]	-0.0095	0.56	[0.022,-0.041]	-0.012	0.32	[0.012,-0.036]
Biceps	0.040	0.38	[-0.046,0.13]	0.0099	0.73	[-0.045,0.065]	0.012	0.53	[-0.025,0.049]	0.016	0.29	[-0.013,0.045]	0.0090	0.49	[-0.016,0.034]
Forearm flexors Upper extremity average	-0.016	0.68	[0.058,-0.09]	0.0043	0.88	[-0.051,0.059]	0.0064	0.69	[-0.025,0.038]	0.0059	0.67	[-0.022,0.033]	0.0020	0.89	[-0.025,0.029]
	0.012	0.68	[-0.045,0.069]	0.0096	0.67	[-0.034,0.053]	0.013	0.39	[-0.018,0.044]	-0.00020	0.99	[0.025,-0.026]	-0.0057	0.58	[0.016,-0.027]

Quadriceps	0.030	0.36	[-0.033,0.093]	0.030	0.19	[-0.013,0.073]	0.016	0.36	[-0.017,0.049]	0.023	0.19	[-0.01,0.056]	0.0051	0.70	[-0.02,0.031]
Tibialis anterior	0.020	0.61	[-0.054,0.094]	0.0097	0.69	[-0.037,0.057]	0.0060	0.76	[-0.033,0.045]	0.011	0.54	[-0.024,0.046]	0.00060	0.97	[-0.029,0.03]
Gastrocnemius Lower extremity average	0.097	0.061	[-0.003,0.20]	0.059	0.088	[-0.008,0.13]	0.043	0.090	[-0.006,0.092]	0.039	0.092	[-0.006,0.084]	0.0093	0.61	[-0.026,0.045]
Six Muscle Average	0.041	0.18	[-0.018,0.1]	0.030	0.14	[-0.009,0.069]	0.024	0.14	[-0.007,0.055]	0.021	0.17	[-0.008,0.05]	0.0047	0.71	[-0.021,0.03]
<b>Younger Boys Phase Slope†</b>															
Deltoid	-0.20	0.37	[0.23,-0.63]	-0.15	0.40	[0.18,-0.48]	0.017	0.87	[-0.18,0.21]	0.086	0.33	[-0.085,0.26]	0.10	0.15	[-0.037,0.24]
Biceps	-0.34	0.28	[0.27,-0.95]	-0.081	0.66	[0.27,-0.43]	-0.072	0.56	[0.16,-0.31]	-0.048	0.62	[0.15,-0.24]	0.044	0.57	[-0.11,0.20]
Forearm flexors Upper extremity average	-0.15	0.56	[0.36,-0.66]	-0.12	0.51	[0.25,-0.49]	0.0049	0.96	[-0.21,0.22]	0.044	0.55	[-0.10,0.19]	0.090	0.22	[-0.053,0.23]
Quadriceps	-0.27	0.22	[0.16,-0.70]	-0.16	0.30	[0.13,-0.45]	-0.039	0.66	[0.13,-0.21]	0.043	0.54	[-0.094,0.18]	0.10	0.090	[-0.02,0.22]
Quadriceps	-0.17	0.27	[0.12,-0.46]	-0.15	0.18	[0.066,-0.37]	-0.086	0.25	[0.057,-0.23]	-0.067	0.35	[0.07,-0.20]	0.016	0.78	[-0.098,0.13]
Tibialis anterior	-0.53	0.11	[0.097,-1.16]	-0.28	0.16	[0.092,-0.65]	-0.11	0.49	[0.20,-0.42]	-0.091	0.49	[0.16,-0.35]	-0.016	0.87	[0.18,-0.21]
Gastrocnemius Lower extremity average	<b>-0.83</b>	<b>0.0068</b> <sup>§</sup>	<b>[-0.26,-1.40]</b>	<b>-0.42</b>	<b>0.026</b>	<b>[-0.067,-0.77]</b>	<b>-0.24</b>	<b>0.032</b>	<b>[-0.024,-0.46]</b>	<b>-0.18</b>	<b>0.044</b>	<b>[-0.006,-0.35]</b>	-0.042	0.56	[0.097,-0.18]
Six Muscle Average	-0.48	<b>0.021</b>	<b>[-0.088,-0.87]</b>	<b>-0.28</b>	<b>0.035</b>	<b>[-0.025,-0.54]</b>	-0.16	0.063	[-0.001,-0.32]	-0.10	0.15	[0.037,-0.24]	-0.013	0.82	[0.10,-0.13]
Six Muscle Average	-0.38	0.063	[0.012,-0.77]	-0.23	0.091	[0.025,-0.49]	-0.096	0.24	[0.061,-0.25]	-0.031	0.63	[0.094,-0.16]	0.042	0.44	[-0.064,0.15]

Significant values are in **bold** font; Slope difference refers to the difference (DMD-control) in the slope of a given parameter over time

\*units are (months-1) † Deg-kHz<sup>-1</sup>-month<sup>-1</sup>; Values are mean (standard ± error); § FDR q-value < 0.