

Tests of Between-Groups Effects – All Groups

MANOVA-

Sensor Location	Plane	df	Statistic	No covariate			Controlling for gait speed		
				F#/H	p	η^2	F	p	η^2
Sacrum	3D	3	F	3.406	.022	.127	3.51	0.02	0.132
	Mediolateral	3	F	2.897	.041	.11	2.695	0.053	0.105
	Anteroposterior	3	F	1.592	.199	.064	1.587	0.200	0.065
	Vertical	3	H	9.942	.019^	.129	2.885	0.042	0.111
Sternum	3D	3	F	7.555	.000	.245	3.884	0.013	0.144
	Mediolateral	3	F	8.818	.000	.274	2.293	0.086	0.091
	Anteroposterior	3	H	18.104	.000^	.24	2.998	0.037	0.115
	Vertical	3	H	11.599	.009^	.17	4.045	0.010	0.150

*transformed variable

^ Bonferroni correction for multiple comparisons requires $p < 0.0083$

Tukey adjusted

Tests of Between-Group Effects

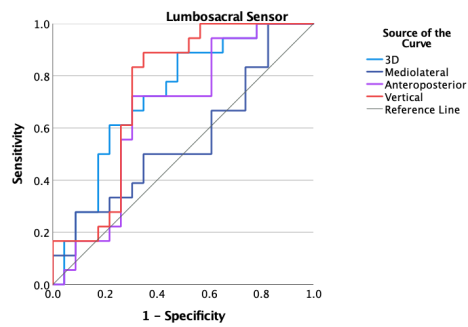
Healthy Controls versus EDSS 0-1

MANOVA		No covariate			Controlling for gait speed		
Sensor Location	Plane	F	p	η^2	F	p	η^2
Sacrum	3D	4.772	.035	.109	5.895	0.02	0.134
	Mediolateral	0.844	.364	.021	1.138	0.293	0.029
	Anteroposterior	3.000	.091	.071	4.213	0.047	0.100
	Vertical	6.078	.018	.141	3.679	0.063	0.088
Sternum	3D	11.846	.001	.233	10.5	0.002	0.216
	Mediolateral	6.695	.014	.147	2.432	0.127	0.060
	Anteroposterior	6.586	.014	.152	5.573	0.023	0.128
	Vertical	10.559	.002	.219	13.277	0.001	0.259
		No covariate					
Clinical Tests	Timed 25 ft walk	2.487	.123	.061			
	Average Gait Speed over 5 min (m/s)	5.390	.026	.124			

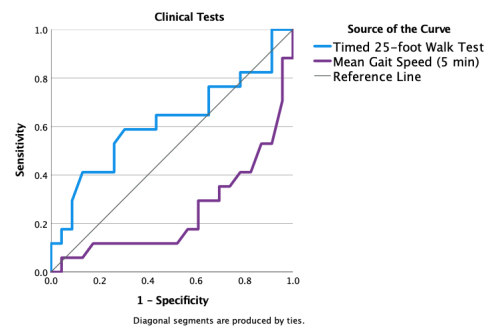
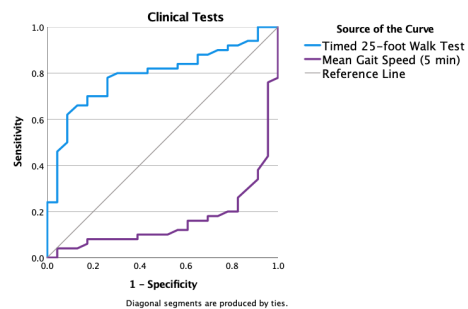
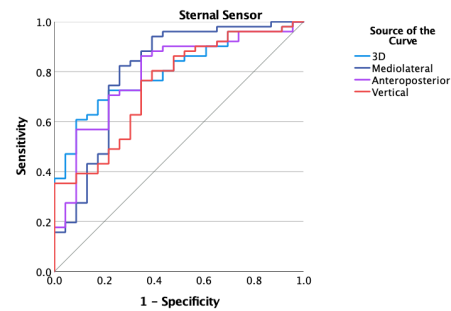
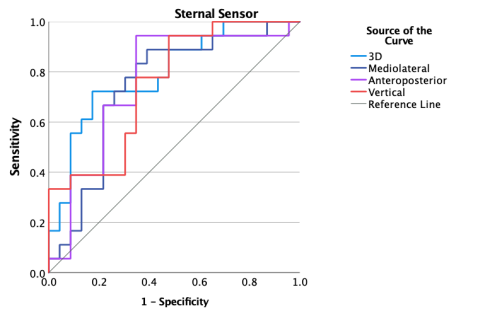
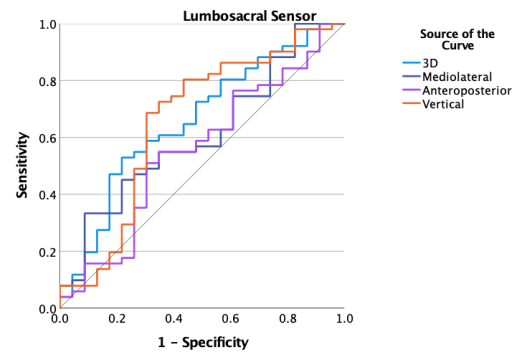
Spearman's Correlations

		EDSS	Kurtzke Functional System Score						
		total	pyramidal	cerebellar	brainstem	sensory	bowel & bladder	visual	mental
		r	r	r	r	r	r	r	r
		(p)	(p)	(p)	(p)	(p)	(p)	(p)	(p)
Clinical Tests	Timed 25 ft walk	.486** (<i>< .001</i>)	.348* (<i>0.013</i>)	.475** (<i>< .001</i>)	0.029 (<i>0.839</i>)	.357* (<i>0.011</i>)	0.042 (<i>0.773</i>)	0.134 (<i>0.352</i>)	0.087 (<i>0.548</i>)
	Mean Gait Speed	-.459** (<i>0.001</i>)	-.427** (<i>0.002</i>)	-.391** (<i>0.005</i>)	0.08 (<i>0.577</i>)	-.324* (<i>0.02</i>)	-0.065 (<i>0.651</i>)	-0.065 (<i>0.649</i>)	-0.083 (<i>0.565</i>)
Sacrum Sensor	3D	.099 (<i>.489</i>)	.138 (<i>.335</i>)	-.130 (<i>.365</i>)	.198 (<i>.165</i>)	.198 (<i>.163</i>)	-.112 (<i>.435</i>)	-.055 (<i>.702</i>)	.012 (<i>.931</i>)
	Mediolateral	.280* (<i>.046</i>)	.137 (<i>.337</i>)	-.074 (<i>.606</i>)	.241 (<i>.089</i>)	.362** (<i>.009</i>)	-.008 (<i>.954</i>)	-.075 (<i>.599</i>)	.216 (<i>.129</i>)
	Anteroposterior	-.083 (<i>.561</i>)	.131 (<i>.358</i>)	-.074 (<i>.605</i>)	.085 (<i>.554</i>)	.089 (<i>.534</i>)	-.222 (<i>.117</i>)	-.089 (<i>.534</i>)	.029 (<i>.843</i>)
	Vertical	.084 (<i>.559</i>)	.157 (<i>.272</i>)	.043 (<i>.766</i>)	-.046 (<i>.748</i>)	.061 (<i>.672</i>)	-.051 (<i>.722</i>)	-.082 (<i>.566</i>)	.059 (<i>.68</i>)
	3D	.330* (<i>.018</i>)	.447** (<i>.001</i>)	.139 (<i>.330</i>)	.142 (<i>.320</i>)	.248 (<i>.079</i>)	.036 (<i>.802</i>)	-.130 (<i>.362</i>)	.027 (<i>.851</i>)
	Mediolateral	.360** (<i>.010</i>)	.397** (<i>.004</i>)	.061 (<i>.671</i>)	.125 (<i>.381</i>)	.293* (<i>.037</i>)	.004 (<i>.980</i>)	.021 (<i>.886</i>)	.116 (<i>.418</i>)
	Anteroposterior	.304* (<i>.030</i>)	.281* (<i>.046</i>)	.175 (<i>.219</i>)	.219 (<i>.123</i>)	.270 (<i>.055</i>)	-.106 (<i>.459</i>)	.014 (<i>.924</i>)	-.046 (<i>.750</i>)
	Vertical	.104 (<i>.468</i>)	.254 (<i>.072</i>)	.001 (<i>.997</i>)	.115 (<i>.421</i>)	.128 (<i>.371</i>)	.016 (<i>.912</i>)	-.048 (<i>.738</i>)	.058 (<i>.688</i>)

Detecting PwMS (EDSS 0-4) from Healthy Controls



Detecting Non-disabled PwMS (EDSS 0-1) from Healthy Controls



Figures 2a-f.