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Supplementary Material

Supplementary Figures



Supplementary Table S1. Parameter estimates for each general linear model of Control and mTBI.

Name	Unstandardized Slope Estimate	SE	<i>t</i>	<i>p</i>	Lower	Upper
Gait Velocity (m/s)						
Intercept	1.497	0.095	15.810	<.0001	1.309	1.684
Sex (Female)	-0.034	0.039	-0.870	0.388	-0.112	0.044
BMI	-0.008	0.003	-2.450	0.016	-0.014	-0.001
Group (mTBI)	-0.037	0.039	-0.960	0.342	-0.115	0.040
Saccade Frequency (number/s)						
Intercept	1.770	0.397	4.460	<.0001	0.983	2.557
Sex (Female)	0.062	0.159	0.390	0.698	-0.254	0.378
BMI	0.043	0.013	3.160	0.002	0.016	0.069
Group (mTBI)	-0.394	0.160	-2.460	0.016*	-0.712	-0.076
Saccade Duration (ms)						
Intercept	0.040	0.009	4.490	<.0001	0.023	0.058
Sex (Female)	0.001	0.004	0.400	0.692	-0.006	0.009
BMI	0.001	0.000	3.700	0.000	0.001	0.002

Group (mTBI)	-0.008	0.004	-2.230	0.028*	-0.015	-0.001
Saccade Peak Velocity (deg/s)						
Intercept	571.410	35.615	16.040	<.0001	500.751	642.070
Sex (Female)	-0.319	14.296	-0.020	0.982	-28.682	28.044
BMI	1.903	1.210	1.570	0.119	-0.497	4.303
Group (mTBI)	-31.226	14.387	-2.170	0.032*	-59.769	-2.683
Saccade Distance (mm)						
Intercept	12.124	0.740	16.390	<.0001	10.656	13.592
Sex (Female)	-0.085	0.297	-0.290	0.775	-0.674	0.504
BMI	-0.033	0.025	-1.310	0.194	-0.083	0.017
Group (mTBI)	0.105	0.299	0.350	0.726	-0.488	0.698
Fixation Frequency (number/s)						
Intercept	1.057	0.345	3.060	0.003	0.371	1.744
Sex (Female)	0.001	0.128	0.010	0.993	-0.253	0.255
BMI	-0.018	0.012	-1.550	0.125	-0.042	0.005
Group (mTBI)	0.082	0.131	0.630	0.532	-0.178	0.343
Fixation Duration (ms)						
Intercept	205.813	21.199	9.710	<.0001	163.691	247.934
Sex (Female)	1.829	7.840	0.230	0.816	-13.750	17.407
BMI	-1.657	0.726	-2.280	0.025	-3.099	-0.214
Group (mTBI)	-10.323	8.065	-1.280	0.204	-26.349	5.702

* Significant difference between groups ($p < 0.05$)

Supplementary Material

Supplementary Figures



Supplementary Table S2. Means, Standard Deviations and *p*-values of the Control and mTBI groups.

Variables	Control	mTBI	<i>p</i> -values
Saccade frequency (sacc/sec)	2.96 (0.80)	2.53 (0.65)	0.016*
Saccade duration (ms)	0.07 (0.02)	0.06 (0.02)	0.028*
Saccade peak velocity (deg/sec)	623.83 (72.46)	588.99 (54.56)	0.032*
Saccade distance	11.19 (1.35)	11.31 (1.23)	0.726
Fixation frequency (fix/sec)	0.55 (0.57)	0.67 (0.51)	0.532
Fixation duration (ms)	161.19 (43.59)	154.82 (27.19)	0.204

* Significant difference between groups ($p < 0.05$)

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Supplementary Figures



Supplementary Table S3. Statistic values of partial correlation analysis.

Eye tracking variables	Gait speed	
	Control	mTBI
Saccade frequency (sacc/sec)	$r = 0.248, p = 0.222$	$r = 0.149, p = 0.251$
Saccade duration (ms)	$r = 0.072, p = 0.725$	$r = \mathbf{0.287}, p = \mathbf{0.025}^*$
Saccade peak velocity (deg/sec)	$r = 0.028, p = 0.891$	$r = 0.104, p = 0.424$

* Significant difference between groups ($p < 0.05$)