

Table 1: Participant demographic information for each group including age, sex, current sport, visual acuity, and SRC history.

	ATHLETE (n = 19)	CONC (n = 12)
Age, Mean (SD) (years)	20.7 (1.4)	20.7 (1.7)
Sex, Male/Female (n)	7/12	6/6
Current Sport (n)	Rugby = 7 Soccer = 2 Ice Hockey = 10	Rugby = 3 Field Lacrosse = 2 Soccer = 1 Ice Hockey = 5 American Football = 1
Static Visual Acuity, Mean (SD) (LogMAR)	-0.18 (0.06)	-0.14 (0.1)
Number of SRC, Mean (SD)	0.1 (0.5)	2.4 (1.1)
Time from SRC, Mean (SD), (months)	56.4 (0.0)	21.3 (13.9)

Table 2: DVA scores (logMAR, Mean (95% CI)) while standing for pre-exercise and relative difference from pre-exercise DVA scores (logMAR, Mean (SD)) between ATHLETE and CONC following exercise each motion type

Motion Type	Random Walk				Horizontal			
Condition	PRE-EX	POST1	POST10	POST20	PRE-EX	POST1	POST10	POST20
ATHLETE	0.12 (0.08, 0.17)	0.01 (-0.02, 0.05)	0.00 (-0.03, 0.04)	0.02 (-0.02, 0.05)	0.10 (0.04, 0.17)	-0.01 (-0.05, 0.04)	-0.02 (-0.07, 0.02)	-0.04 (-0.08, 0.01)
CONC	0.13 (0.04, 0.21)	-0.01 (-0.05, 0.04)	-0.03 (-0.05, 0.04)	-0.02 (-0.04, 0.05)	0.18 (0.09, 0.27)	-0.05 (-0.11, 0.0)	0.00 (-0.06, 0.05)	-0.06 (-0.11, 0.0)

Table 3: Clinically meaningful change in DVA score > 0.1 logMAR from PRE-EX indicated by a positive (worse) or negative (better) change; % (n).

Motion Type	Random Walk			Horizontal		
Condition	POST1	POST10	POST20	POST1	POST10	POST20
ATHLETE	Positive	5% (1/19)	16% (3/19)	21% (4/19)	11% (2/19)	16% (3/19)
	Negative	5% (1/19)	11% (2/19)	11% (2/19)	21% (4/19)	26% (5/19)
CONC	Positive	8% (1/12)	0% (0/12)	8% (1/12)	0% (0/12)	17% (2/12)
	Negative	8% (1/12)	0% (0/12)	8% (1/12)	25% (3/12)	25% (3/12)

Table 4: Response time (ms, Mean (95% CI)) during RW-motion DVA measured from the time a new orientation of the DVA target was presented to a response using a keypad for ATHLETE and CONC before and after completing the treadmill running protocol.

Motion Type	Random Walk			
Condition	PRE-EX	POST1	POST10	POST20
ATHLETE	1559 (1340, 1779)	1435 (1216, 1655)	1370 (1151, 1590)	1329 (1109, 1548)
CONC	1637 (1368, 1906)	1558 (1289, 1826)	1718 (1449, 1987)	1712 (1443, 1980)

Table 5: Response time (ms, Mean (95% CI)) during H-motion DVA from the time a new orientation of the DVA target was presented to a response using a keypad for ATHLETE and CONC before and after completing the treadmill running protocol.

Motion Type	Horizontal			
Condition	PRE-EX	POST1	POST10	POST20
ATHLETE	842 (762, 922)	776 (696, 856)	770 (690, 850)	771 (690, 852)
CONC	932 (831, 1033)	845 (744, 945)	806 (705, 906)	771 (670, 872)