

Supplementary material for Meardon et al.,” Shoe Cushioning affects Lower Extremity Joint Contact Forces during Running”, *Footwear Science*, 2018.

	Soft		Medium		Hard		Cushioning Effect
	Mean	SD	Mean	SD	Mean	SD	p-value
Dorsiflexion							
At contact (°)	11.45	8.10	11.38	8.36	11.07	8.11	p=0.60
Maximum (°)	26.15	3.30	26.78	3.57	27.23	3.12	P<0.01*
Peak velocity (°/s)	426.45	99.66	433.66	91.27	446.01	85.95	P<0.01*
Knee Flexion							
At contact (°)	-7.36	6.44	-7.97	6.42	-7.87	6.06	p=0.13
Maximum (°)	-42.53	6.021	-42.44	5.82	-42.80	5.47	p=0.48
Peak velocity (°/s)	-571.35	101.91	-570.99	105.77	-584.42	106.89	P<0.04*
Hip Flexion							
At contact (°)	25.93	6.19	26.60	6.39	25.65	5.84	p=0.12
Maximum (°)	27.09	5.97	27.63	6.28	26.76	5.82	p=0.20
Peak velocity (°/s)	-363.80	56.85	-362.79	62.74	-362.85	60.73	p=0.83
VLR (BW/s)	72.88	25.25	76.36	27.55	76.78	27.06	p=0.02*
Stride Time (ms)	731.63	35.34	731.53	31.87	732.99	31.57	p=0.66
Stance Time (ms)	256.89	25.89	254.75	25.42	255.23	25.40	p=0.08

Appendix A. Average sagittal plane ankle, knee, and hip angles at contact and maximum as well as peak angular velocities are reported. Additionally, the vertical loading rate of the ground reaction force (VLR) and stride and stance time are reported. A repeated measures ANOVA was used to examine midsole cushioning effects. Statistically significant effects are identified by an asterisk (*)