

**Appendix 1.** Multivariable Logistic Model of Group Differences

Parameter	Group*	Estimate	Standard Error	Wald Chi-Square	P value
<b>Intercept</b>	<b>Minimalist</b>	50.4026	37.3658	1.8195	0.177
	<b>Socked</b>	59.0465	33.9140	3.0313	0.082
<b>Ground Contact Time</b>	<b>Minimalist</b>	-0.1213	0.0522	5.4003	0.020
	<b>Socked</b>	-0.1119	0.0494	5.1262	0.023
<b>Foot Strike – FFS</b>	<b>Minimalist</b>	1.4201	1.2889	1.2139	0.270
	<b>Socked</b>	1.0725	1.2861	0.6954	0.404
<b>Foot Strike – MFS</b>	<b>Minimalist</b>	-0.2522	1.1358	0.0493	0.824
	<b>Socked</b>	-0.8524	1.1622	0.5379	0.463
<b>Knee Angle</b>	<b>Minimalist</b>	-0.2210	0.1645	1.8065	0.179
	<b>Socked</b>	-0.1725	0.1398	1.5217	0.217
<b>Stride Cadence</b>	<b>Minimalist</b>	0.1038	0.0775	1.7901	0.181
	<b>Socked</b>	-0.00869	0.0660	0.0173	0.895

\*Traditional shoes as reference group

**Overall analysis of effects**

Effect	DF	Wald Chi-Square	P value		
<b>Ground Contact Time</b>	<b>2</b>	5.8012	0.05		
<b>Foot Strike</b>	<b>4</b>	3.3470	0.50		
<b>Knee Angle</b>	<b>2</b>	2.1103	0.35		
<b>Stride Cadence</b>	<b>2</b>	3.2753	0.19		