

**Appendix 1. Factors associated with knee OA in Olympians and general population control**

	Olympians		Controls	
	Prevalence n (%)	aOR (95% CI) adjusted a, s, b, i	Prevalence n (%)	aOR (95% CI) adjusted a, s, b, i
<b>Age</b>				
20-39	40/1194 (3.35)	1.00 (reference)	17/776 (2.19)	1.00 (reference)
40-59	114/1359 (8.39)	<b>2.44 (1.66 to 3.60)</b>	48/646 (7.43)	<b>3.33 (1.86 to 5.96)</b>
>60	78/580 (13.45)	<b>5.67 (3.66 to 8.79)</b>	26/212 (12.26)	<b>6.68 (3.39 to 13.19)</b>
<b>Sex</b>				
male	113/1840 (6.14)	1.00 (reference)	33/723 (4.56)	1.00 (reference)
female	133/1488 (8.94)	<b>1.88 (1.37 to 2.58)</b>	61/998 (6.11)	<b>1.62 (1.00 to 2.61)</b>
<b>BMI</b>				
normal	112/1774 (6.31)	1.00 (reference)	38/981 (3.87)	1.00 (reference)
overweight	84/1063 (7.90)	1.23 (0.87 to 1.73)	28/457 (6.13)	1.37 (0.79 to 2.38)
obese	36/342 (10.53)	<b>1.67 (1.05 to 2.63)</b>	22/190 (11.58)	<b>3.66 (2.03 to 6.61)</b>
<b>Knee injury</b>				
no	83/2613 (3.18)	1.00 (reference)	45/1391 (3.24)	1.00 (reference)
yes	164/744 (22.04)	<b>9.40 (6.90 to 12.79)</b>	50/344 (14.53)	<b>5.93 (3.71 to 9.48)</b>
<b>Knee alignment</b>				
normal	184/2345 (7.85)	1.00 (reference)	74/1272 (5.82)	1.00 (reference)
valgus	24/131 (18.32)	<b>2.65 (1.51 to 4.64)</b>	9/92 (9.78)	1.70 (0.77 to 3.77)
varus	31/273 (11.36)	1.30 (0.82 to 2.08)	11/82 (13.41)	<b>2.27 (1.02 to 5.05)</b>
Finger nodes	35/198 (17.68)	<b>1.83 (1.13 to 2.95)</b>	8/59 (13.56)	1.72 (0.70 to 4.24)
<b>Comorbidities</b>				
none	120/2379 (5.04)	1.00 (reference)	52/1263 (4.12)	1.00 (reference)
1	75/696 (10.78)	<b>1.79 (1.27 to 2.51)</b>	24/336 (7.14)	1.19 (0.68 to 2.08)
2 or more	52/282 (18.44)	<b>2.71 (1.75 to 4.19)</b>	19/136 (13.97)	<b>2.16 (1.09 to 4.28)</b>

(Values are presented as count (n) and prevalence (%). aOR adjusted a, s, b, i = odds ratio adjusted for confounders age, sex, BMI and injury. BMI = body mass index. Bold denotes statistical significance.)