

**Appendix 1. Factors associated with lumbar spine 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	35/1194 (2.93)	1.00 (reference)	10/776 (1.28)	1.00 (reference)
40-59	89/1359 (6.55)	<b>2.32 (1.53 to 3.52)</b>	32/646 (4.95)	<b>4.31 (2.03 to 9.15)</b>
>60	52/580 (8.97)	<b>4.10 (2.54 to 6.63)</b>	23/212 (10.84)	<b>12.43 (5.59 to 27.7)</b>
<b>Sex</b>				
male	90/1840 (4.89)	1.00 (reference)	20/723 (2.76)	1.00 (reference)
female	100/1488 (6.72)	<b>1.91 (1.36 to 2.70)</b>	46/998 (4.61)	<b>2.28 (1.29 to 4.05)</b>
<b>BMI</b>				
normal	86/1774 (4.85)	1.00 (reference)	36/981 (3.67)	1.00 (reference)
overweight	69/1063 (6.49)	<b>1.61 (1.11 to 2.32)</b>	19/457 (4.16)	0.96 (0.52 to 1.75)
obese	25/342 (7.31)	1.53 (0.91 to 2.59)	10/190 (5.26)	1.35 (0.64 to 2.86)
<b>Lspine injury</b>				
no	102/2815 (3.62)	1.00 (reference)	51/1576 (3.24)	1.00 (reference)
yes	89/542 (16.42)	<b>5.59 (4.01 to 7.78)</b>	15/159 (9.43)	<b>3.52 (1.87 to 6.65)</b>
Lspine recurrent injury	78/355 (21.97)	<b>3.54 (1.85 to 6.81)</b>	17/99 (17.17)	<b>14.75 (1.72 to 126.8)</b>
<b>Comorbidities</b>				
none	80/2379 (3.36)	1.00 (reference)	33/1263 (2.61)	1.00 (reference)
1	64/696 (9.20)	2.57 (1.76 to 3.75)	20/336 (5.95)	1.74 (0.95 to 3.17)
2 or more	47/282 (16.67)	<b>4.01 (2.57 to 6.27)</b>	13/136 (9.56)	1.87 (0.878 to 3.98)

(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. Lspine = Lumbar spine. Bold denotes statistical significance.)