Additional file 2: INCEPTION COHORT STUDIES reporting factors that are longitudinally associated with back pain.

Back pain, sample characteristics and associations between back pain and risk factors of back pain. Inception Cohorts

Reference	Back Pain					Characteristics of study sample			Significant positive (+) or negative (-) associations with back pain					
Reference (year of pub), country, pop size	MBP	LBP	Mix	?	Clear definition of BP (x/4) (Additional file 4)	Age range at baseline	Sex	No. of follow ups Follow-up period	Female	Male	Age	Height	Socioeconomic factors	Significant estimates (95% CI)
[23] Aartun, (2016), Denmark, 144	X	X	X		**4/4**	11-13	Both	1 2 years	(NT)	(NT)	(NT)	(NT)	(NT)	
[24] Barke, (2014), Germany, 2040				X	2/4	9-14	Both	1 1 year	+	(NT)	+	(NT)	(NT)	Female: OR 1.8 (1.1-3.1) Age: OR 1.2 (1.1-1.3)
[25] Burton, (1996), England, 216		X			3/4	11	Both	4 1 year		+	+	(NT)	(NT)	Males: prevalence percentage boys 60%, girls 40% (Female: OR 0.4 (0.3-0.8) (calculated)) Older age 11 yrs: 12% 15 yrs: 22% (Older age: OR 2.1 (1.2-3.7) (calculated))
[26] Mustard, (2005), Canada, 1043				X	3/4	4-16	Both	2 4 years, 14 years	0	0	0	(NT)	+	Lower parental education: OR 1.7 (1.1-2.8)
[27] Newcomer, (1996), USA 96		X			**4/4**	10-19	Both	1 4 years	0	0	+	(NT)	(NT)	Older age OR 3.4 (graph interpretation)
[28] Poussa, (2005), Finland, 430		X			3/4	10-11	Both	5 1 year (4x), 8 years (1)	0	0	(NT)	+	(NT)	Increased growth spurt of one SD (4.3cm) from 11-14 years: OR 1.3 (1.1-1.7)
[29] Triki, (2015), Tunisia, 5958		X			3/4	18-24	Both	7 1 year	+		(NT)	(NT)	(NT)	Female: Female 17%, male 13% (Female: OR 1.5 (1.3-1.7) (posthoc)) (the sex differences disappeared when looking at individual sports)

Pub: Publication, MBP: Mid-back pain, LBP: low back pain: BP: back pain, (NT): Not tested, + significant positive association, - significant negative association, 0: tested but non-significant estimate, CI: confidence interval, OR: odds ratio, SD: standard deviation, RR: relative risk, No.: number

Back pain, sample characteristics and associations between back pain and risk factors of back pain continued. Inception cohorts

Reference	Back Pain					Characteristics of study sample			Significant positive (+) or negative (-) associations with back pain						
Reference (year of pub), country, pop size	MBP	LBP	Mix	?	Clear definition of BP (x/4) (Additional file 4)	Age range at baseline	Sex	Follow-up period	BMI	Muscle strength	Psychosocial	Physical activity/ work	Smoking	Illness	Significant estimates (95% CI)
[23] Aartun, (2016), Denmark, 144	X	X	X		**4/4**	11-13	Both	1 2 years	(NT)	(NT)	(NT)	+	(NT)	(NT)	High level physical activity: RR 1.4 (1.1-1.9)
[24] Barke, (2014), Germany, 2040				X	2/4	9-14	Both	1 1 year	(NT)	(NT)	+	(NT)	(NT)	(NT)	Dysfunctional coping: OR 1.4 (1.1-2.0) (boys) Anxiety sensitivity: OR 1.5 (1.1-2.0) (boys) Somatosensory amplification: OR 1.8 (1.0-3.1) (girls) Pain catastrophizing: OR 0.5 (0.3-0.9) (girls)
[25] Burton, (1996), England, 216		X			3/4	11	Both	4 1 year	(NT)	(NT)	(NT)	(NT)	(NT)	(NT)	
[26] Mustard, (2005), Canada, 1928				X	3/4	4-16	Both	2 4 years, 14 years	0	(NT)	+	0	+	0	Heavy smoking: OR 1.9 (1.1-3.1) Psychological distress: OR 1.9 (1.1-3.0) (low), OR 1.9 (1.1-3.2) (mod/high) Emotional or behavioural disorders: OR 1.9 (1.0-3.4)
[27] Newcomer, (1996), USA 96		X			**4/4**	10-19	Both	1 4 years	(NT)	+	(NT)	+	(NT)	(NT)	Increased level of physical activity: OR 2.3 (graph interpretation) Stronger back flexors: OR 2.8 (graph interpretation)
[28] Poussa, (2005), Finland, 430		X			3/4	10-11	Both	5 1 year (4x), 8 years (1)	0	(NT)	(NT)	(NT)	(NT)	(NT)	
[29] Triki, (2015), Tunisia, 5958		X			3/4	18-24	Both	7 1 year	(NT)	(NT)	(NT)	(NT)	(NT)	(NT)	

Pub: Publication, MBP: Mid-back pain, LBP: low back pain: BP: back pain, (NT): Not tested, + significant positive association, - significant negative association, 0: tested but non-significant estimate, CI: confidence interval, OR: odds ratio, SD: standard deviation, RR: relative risk, No.: number