

**Additional file 3: COHORT STUDIES reporting factors that are longitudinally associated with back pain episodes.**

**Back pain, sample characteristics and associations between back pain and temporal precursor variables. Cohort Studies**

Reference Ref, (year of pub), country, pop size	Back pain				Characteristics of study sample			Significant positive (+) or negative (-) associations with back pain				
	MBP	LBP	Mix	?	Clear definition of BP (x/4) (Additional file 5)	Age range at baseline	Sex	No. of follow ups Follow-up period	Female	Male	Age	Significant estimates (95% CI)
[30] van Gessel, (2011), Germany, 2025				X	2/4	9-14	Both	3 1 year	+		+	Females: OR 2.1 (1.9-2.5) Age: 9yr boy: OR 1 (index) 2.5 (1.5, 4.1) (13, boy), 3.2 (1.9, 5.3) (14, boy), 3.1 (1.8, 8.2) (15, boy), 3.0 (1.8, 5.2) (16, boy), 3.5 (1.9, 6.3) (17 boy), 2.4 (1.4, 4.1) (10 girl), 3.4 (2.1, 5.7) (11, girl), 4.6 (2.8, 7.5) (12, girl), 5.6 (3.4, 9.2) (13, girl), 5.4 (3.3, 8.9) (14, girl), 6.7 (4.1, 11.2) (15, girl), 6.7 (4.0, 11.3) (16, girl), 7.5 (4.2, 13.2) (17, girl).

Pub: Publication, MBP: Mid-back pain, LBP: low back pain: BP: back pain, + significant positive association, OR: odds ratio, No.: number