

**Additional file 7**

Relative risk ratio (RRR) of spinal pain according to the secondary definition of screen-based activity (based on computer games etc. and tv viewing) and physical activity, respectively, among the 45,555 pre-adolescents included in the study population (The Danish National Birth Cohort, born 1996-2003)

	Model 1 <sup>ab</sup>			Model 2 <sup>bc</sup>		Model 3 <sup>bd</sup>	
	No. of cases Moderate/Severe	Moderate pain RRR (95% CI)	Severe pain RRR (95% CI)	Moderate pain RRR (95% CI)	Severe pain RRR (95% CI)	Moderate pain RRR (95% CI)	Severe pain RRR (95% CI)
<b>SBA, Girls (h/day)</b>							
< 2	2,340/1,022	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2 to < 4	3,581/1,550	1.19 (1.11-1.26)	1.18 (1.08-1.28)	1.18 (1.10-1.26)	1.16 (1.06-1.27)	1.17 (1.10-1.25)	1.14 (1.04-1.24)
4 to < 6	1,029/507	1.44 (1.32-1.59)	1.63 (1.45-1.84)	1.42 (1.29-1.56)	1.58 (1.40-1.79)	1.39 (1.27-1.53)	1.49 (1.32-1.69)
≥ 6	300/196	1.65 (1.41-1.94)	2.47 (2.05-2.97)	1.61 (1.37-1.88)	2.35 (1.95-2.83)	1.57 (1.34-1.84)	2.18 (1.81-2.63)
<b>SBA, Boys (h/day)</b>							
< 2	996/319	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2 to < 4	2,832/904	1.04 (0.95-1.13)	1.04 (0.91-1.19)	1.03 (0.95-1.13)	1.03 (0.90-1.18)	1.03 (0.95-1.13)	1.01 (0.88-1.16)
4 to < 6	1,706/564	1.28 (1.17-1.41)	1.32 (1.14-1.53)	1.26 (1.15-1.39)	1.29 (1.12-1.50)	1.24 (1.13-1.37)	1.24 (1.07-1.44)
≥ 6	708/326	1.33 (1.18-1.50)	1.91 (1.62-2.27)	1.29 (1.14-1.45)	1.82 (1.54-2.16)	1.25 (1.11-1.41)	1.68 (1.42-2.00)
<b>Physical activity behavior</b>							
Inactive	1,627/769	1.25 (1.16-1.33)	1.56 (1.42-1.71)	1.15 (1.07-1.24)	1.32 (1.20-1.45)	1.13 (1.05-1.21)	1.24 (1.13-1.37)
Lightly active	6,225/2,474	1.14 (1.09-1.19)	1.20 (1.12-1.28)	1.11 (1.06-1.16)	1.13 (1.06-1.21)	1.09 (1.04-1.14)	1.09 (1.02-1.17)
Moderately active	5,066/1,914	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Vigorously active	574/231	0.98 (0.88-1.09)	1.04 (0.90-1.21)	1.00 (0.90-1.11)	1.08 (0.93-1.25)	1.00 (0.90-1.11)	1.07 (0.92-1.25)

a Crude model (SBA was analyzed as the interaction between SBA and child's sex)

b Reference categories: For explanatory variables; less than 2 hours used on SBA daily and being moderately physically active, and for outcome variables; not having reported moderate or severe spinal pain in DNBC-11 (No pain)

c Simultaneously modeled for the interaction between SBA and child's sex, and physical activity behavior, but without further adjustments.

d Adjusted for child's age, parity, family type, parental education, household income and simultaneously modeled for physical activity and the interaction between SBA and child's sex

Test of interaction between SBA and physical activity: P = 0.018