

Table B.2.c. Cancer incidence: Association between sedentary behaviour and cancer incidence among adults (in alphabetical order by author)
 See the [Supplementary materials](#) for description of evidence of US PAGAC (24) by outcome

Systematic review evidence Review credibility	No. of studies/ Study design No. of participants	Quality Assessment					Description of evidence Summary of findings	Certainty
		Risk of bias	Inconsistency	Indirectness †	Imprecision	Other		
Berger 2019 (5) Moderate	12 prospective cohort studies N=671,852	Serious risk of bias	Serious inconsistency	Serious indirectness	No serious imprecision	None	Most studies used self-report sedentary behaviour (one study combined self-report and job title assignment). Mean follow-up time was not reported. There was no association between high versus low ST and risk of incident prostate cancer (RR = 1.07 [95% CI 0.99 and 1.16], 11 studies).	VERY LOW ^a
Chan 2019 (6) Moderate	6 prospective cohort studies N=285,295	Serious risk of bias	Serious inconsistency	Serious indirectness	Serious imprecision	None	Increased total sitting time was not associated with premenopausal breast cancer (RR = 1.04 [95% CI, 0.83 to 1.32], 2 studies, n=1,290) but was associated with postmenopausal breast cancer (RR = 1.20 [95% CI, 1.00 to 1.44], 4 studies, n=4,704). No significant associations were found between sitting watching TV or sitting at work and either pre- or post-menopausal breast cancer.	VERY LOW ^b
Mahmood 2017 (17) Low	4 prospective cohort studies N=1,709,572 4 case-control studies N=2,463	NR	No serious inconsistency	Serious indirectness	No serious imprecision	None	Six studies investigated occupational sedentary behaviour and two studies assessed recreational sedentary behaviour. Sedentary behaviour ascertained based on job title or measured via self-report. The pooled RR for the highest vs. lowest category of occupational sitting time for colon cancer was 1.44 (95% CI, 1.28 to 1.62). No significant association was found between occupational sitting time and rectal cancer (RR = 1.02 [95% CI, 0.82 to 1.28]). Two studies evaluated the association between self-reported recreational TV time (hrs/day): 1 study found that watching TV for more than 9 hrs/day (compared with less than 3 hrs/day) was associated with significantly increased risk of colon cancer in men (RR = 1.56 [95% CI 1.11 to 1.20]) and women (RR = 1.45 [95% CI, 0.99 and 2.13]) and the other found an association between TV time ≥ 2 hrs/day vs. <1.14 hrs/day and colon cancer in both men and women (RR = 2.22 [95% CI, 1.23 to 4.17]).	LOW ^c
Wang 2018 (21) High	3 cross-sectional studies N=56,412	Serious risk of bias	No serious inconsistency	Serious indirectness	No serious imprecision	None	All 3 studies used self-reported measures of SB; one study included overall SB, two studies reported recreational SB (including one limited to TV viewing only), and one study also included transport-related SB. Categorization of SB was highly variable between studies Age ranged from 40 to 74 years in all 3 studies. None of the 3 studies reported statistically significant associations between time spent in SB and any colorectal neoplasia or advanced colorectal neoplasia ; however, the pooled result suggested a significant increased risk of advanced colorectal neoplasia with higher levels of SB (RR = 1.24 [95% CI, 1.04 to 1.49], 3 studies).	VERY LOW ^d

Abbreviations: CI = confidence interval; hrs = hours; NR = not reported; RR = risk ratio; SB = sedentary behaviour; TV = television

† Serious indirectness indicates measurement of intermediate/indirect outcomes or heterogeneity in exposures and comparisons assessed; certainty of evidence was not always downgraded for indirectness if it was not judged to impact the certainty in the findings for the outcome evaluated in the review

^a Certainty of evidence not upgraded given serious risk of bias of most studies (generally lack of adjustment for potential confounding variables) and due to serious inconsistency in direction of effects and high statistical heterogeneity

^b Certainty of evidence not upgraded given serious risk of bias of most studies (generally lack of adjustment for potential confounding variables) and due to serious inconsistency and imprecision in direction and magnitude of effects

^c Certainty of evidence not upgraded given lack of risk-of-bias assessment of individual studies and indirectness in measures of sedentary behaviour

^d Certainty of evidence downgraded given serious risk of bias of all included studies and serious indirectness in measures of sedentary behaviour