Supplementary Table S-F2-5. Summary of Original Research Studies on Sedentary Behavior and Cardiovascular Disease (CVD) Mortality Identified in the Systematic Reviews and Meta-Analyses

Reference	Year of Publication	Population	Sample Size	Age	Definition of Sedentary Behavior	Mortality Follow-up Period	Main Results	Dose-Response
Weller and Corey 1998	1998	Canadian Women; Canada Fitness Survey Mortality Follow-up Study	6,620	>30 y	Daily sitting time	~ 7 y	OR (95% CI) across levels of daily sitting time in age-adjusted model: >50%: 1.00 (reference) 50%: 0.73 (0.49-1.08) <50%: 0.37 (0.24-0.56)	Not tested
Katzmarzyk et al. 2009	2009	Canadian Adults; Canada Fitness Survey Mortality Follow-up Study	17,013	18-90 y	Daily sitting time	1981 to 1993 Mean of 12.0 y	HR (95% CI) across levels of daily sitting time in fully adjusted model: 0%: 1.00 (reference) 25%: 1.01 (0.77-1.31) 50%: 1.22 (0.94-1.60) 75%: 1.47 (1.09-1.96) 100% 1.54 (1.09-2.17) P for trend <0.0001 No significant interaction between sitting time and sex (p=0.08).	Yes
Patel et al. 2010	2010	U.S. Adults; Cancer Prevention Study II (CPS-II) Nutrition Cohort	123,216	50-74 y	Daily leisure sitting time	1992 to 2006 Mean of ~14 y	HR (95% CI) across levels of daily sitting time in fully adjusted model: <u>Men</u> <3 h/d: 1.00 (reference) 3-5 h/d: 1.06 (0.99-1.14) ≥5 h/d: 1.18 (1.08-1.30) P for trend = 0.0007 <u>Women</u>	Men: Yes Women: Yes

							<3 h/d: 1.00 (reference) 3-5 h/d: 1.20 (1.10-1.32) ≥5 h/d: 1.33 (1.17-1.52) P for trend < 0.0001	
Warren et al. 2010	2010	US Men; Aerobics Center Longitudinal Study	7,744	20-89 y	TV viewing	1982 to 2003 ~ 21 y	HR (95% CI) across levels of weekly TV viewing in fully adjusted model: <4 h/wk: 1.00 (reference) 4-8 h/wk: 1.02 (0.74-1.42) 8-12 h/wk: 1.27 (0.90-1.78) >12 h/wk: 0.96 (0.68-1.36) P for trend = 0.94	No
Dunstan et al. 2010	2010	Australian Adults; The Australian Diabetes, Obesity and Lifestyle Study (AusDiab)	8,800	≥25 y	TV viewing time	1999-2000 to 2006 Median of 6.6 y	HR (95% CI) across levels of TV viewing time in fully adjusted model: <2 h/d: 1.00 (reference) 2-<4 h/d: 1.19 (0.72-1.99) ≥4 h/d: 1.80 (1.00-3.25) No significant effect modification by age, sex, education, smoking status, hypertension, waist circumference, BMI, and glucose tolerance status (p>0.01). No significant interaction between TV viewing time and leisure-time exercise (p>0.01).	Yes
Wijndaele et al. 2011	2011	UK Adults; European Prospective Investigation into Cancer and	13,197	Mean of 61.5 y	TV viewing time	1998-2000 to 2009 Mean of 9.5 y	HR (95% CI) per hour of TV viewing = 1.08 (1.01-1.16), p=0.02	Yes

		Nutrition Study (EPIC) - Norfolk					No significant interactions between TV time and sex, age, education and BMI. No significant interaction between TV viewing and physical activity energy expenditure (p=0.45).	
Matthews et al. 2012	2012	U.S. Adults; NIH-AARP Diet and Health Study	240,819	50-71 y	Daily sitting time, TV viewing time	1995-96 to 2005 Mean of 8.5 y	HR (95% CI) across levels of daily sitting time in fully adjusted model: <3 h/d: 1.00 (reference) 3-4 h/d: 0.98 (0.90-1.06) 5-6 h/d: 1.02 (0.94-1.11) 7-8 h/d: 0.95 (0.86-1.06) ≥9 h/d: 1.16 (1.02-1.30) P for trend = 0.14 HR (95% CI) across levels of TV viewing in fully adjusted model: <1 h/d: 1.00 (reference) 1-2 h/d: 1.00 (0.86-1.16) 3-4 h/d: 1.15 (1.00-1.33) 5-6 h/d: 1.36 (1.17-1.59) ≥7 h/d: 1.85 (1.56-2.20) P for trend <0.001 No significant interaction between TV viewing and moderate-to-vigorous physical activity (p = 0.198).	Sitting: No TV viewing: Yes

Ford 2012	2012	U.S. Adults; 1999-2002 National Health and Nutrition Examination Survey (NHANES)	7,350	≥20 y	Daily TV viewing and computer use outside of work	1999-2002 to 2006 Median of 5.8 y	HR (95% CI) across levels of daily sedentary time in fully adjusted model: <1 h/d: 1.00 (reference) 1 h/d: 1.14 (0.56-2.32) 2 h/d: 0.77 (0.43-1.38) 3 h/d: 1.39 (0.69-2.80) 4 h/d: 0.88 (0.39-1.99) ≥5 h/d: 1.13 (0.57-2.24) P for trend = 0.65	No
Kim et al. 2013	2013	U.S. Adults; Multiethnic Cohort Study	134,596	45-75 y	Daily sitting time; TV viewing time	1993-96 to 2007 Median of 13.7 y	HR (95% CI) across quartiles of daily sitting time in fully adjusted model: <u>Men</u> <5 h/d: 1.00 (reference) 5-<10h/d: 0.98 (0.90-1.07) ≥10 h/d: 1.06 (0.96-1.18) P for trend = 0.14 <u>Women</u> <5 h/d: 1.00 (reference) 5-<10h/d: 0.96 (0.85-1.07) ≥10 h/d: 1.19 (1.06-1.34) P for trend <0.01 HR (95% CI) across quartiles of TV viewing time in fully adjusted model: <u>Men</u> <1 h/d: 1.00 (reference) 1-4 h/d: 0.99 (0.89-1.10) ≥5 h/d: 1.20 (1.05-1.37) P for trend <0.01	Daily sitting: No for men; Yes for women TV viewing: Yes

							Women <1 h/d: 1.00 (reference) 1-4 h/d: 1.02 (0.90-1.15) ≥5 h/d: 1.33 (1.14-1.55) P for trend <0.01	
Seguin et al. 2014	2014	U.S. Women; Women's Health Initiative (WHI)	92,234	50-79 y	Total sedentary time (sitting and lying while awake)	1993-98 to 2010 Mean of 12 y	HR (95% CI) across levels of total sedentary time in fully adjusted model: ≤4 h/d: 1.00 (reference) >4-8 h/d: 1.04 (0.92-1.17) >8-11 h/d: 1.06 (0.93-1.20) >11 h/d: 1.13 (0.99-1.29) P for trend = 0.04 No significant interactions between sedentary time and age, BMI, race/ethnicity (white, black, Hispanic, other), physical functioning, and history of chronic disease. No significant interaction between sedentary time and physical activity (p=0.13); no association with sedentary time observed in most active quartile.	Yes
Matthews et al. 2014	2014	U.S. Adults; Southern Community Cohort Study	63,308	40-79 y	Daily sitting time	2002-2009 to 2011 Mean of 6.4 y	HR (95% CI) across levels of daily sitting time in fully adjusted model: Blacks <5.76 h/d: 1.00 (reference) 5.76-8.50 h/d: 0.90 (0.76-1.07) 8.51-12.00 h/d: 1.08 (0.91-1.28) >12.0 h/d: 1.11 (0.93-1.33)	Yes

							P for trend = 0.04 <u>Whites</u> <5.76 h/d: 1.00 (reference) 5.76-8.50 h/d: 1.44 (1.05-1.98) 8.51-12.00 h/d: 1.59 (1.14-2.20) >12.0 h/d: 1.75 (1.24-2.48) P for trend = 0.002	

Legend: BMI=body mass index, CI=confidence interval, HR=hazard ratio, OR=odds ratio, TV=television

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