

S5 Table. Summary of the previous studies on the associations between physical activity and colorectal cancer in Korea

Author (year)	Study design	Study period	Study subjects				No. of cases	No. of controls	Category	RR/OR (95% CIs)	Confounding variables considered
			Type and source	Cancer site	Sex	No.					
Kim DH et al. (2002) [27]	Case-control	1995 to 1996	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Men		78	33 Sedentary (TEE ≤ 170)	1.00	ORs were adjusted for age, sex, education level, job activity level, hospital of admission, meat intake, fiber intake, and total energy intake	
							30	22 Moderate (TEE: 170-330)	1.02 (0.40-2.40)		
							30	14 Active (TEE: > 330)	1.20 (0.50-2.40)		
Kim DH et al. (2002) [27]	Case-control	1995 to 1996	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Women		18	10 Sedentary (TEE ≤ 170)	1.00	ORs were adjusted for age, sex, education level, job activity level, hospital of admission, meat intake, fiber intake, and total energy intake	
							37	19 Moderate (TEE: 170-330)	1.39 (0.50-3.90)		
							42	30 Active (TEE: > 330)	1.42 (0.50-4.10)		
Kim DH et al. (2002) [27]	Case-control	1995 to 1996	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Men		94	38 Never heavy LPTA (MET: ≥ 6)	1.00	ORs were adjusted for age, sex, education level, job activity level, hospital of admission, meat intake, fiber intake, and total energy intake	
							44	31 Ever heavy LPTA (MET: ≥ 6)	0.65 (0.30-1.30)		
Kim DH et al. (2002) [27]	Case-control	1995 to 1996	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Women		71	40 Never heavy LPTA (MET: ≥ 6)	1.00	ORs were adjusted for age, sex, education level, job activity level, hospital of admission, meat intake, fiber intake, and total energy intake	
							26	19 Ever heavy LPTA (MET: ≥ 6)	1.10 (0.50-2.60)		
Kim JI et al. (2003) [5]	Case-control	Not specified	Hospital based (Ilsan Paik Hospital, Goyang, Korea); 125 cases and 247 controls	Colon	Both sexes		61	104 < 4 (hours/week)	1.00	Matched by age (± 5 years) and sex; pair-matched into a 2 to 1 ratio; adjusted for age, sex, drinking habits, smoking and diet habits to control the effect of potential confounding environmental factors.	
							64	143 ≥ 4	0.76 (0.48-1.20)		
Lim HJ et al. (2008) [8]	Prospective cohort	1993 to 1998; aged 65 years or more; linking data from the Korean Medical	Population-based dynamic cohort (Korea Elderly Phamacepidemilogic Cohort (KEPEC)); 4,834 men and 9,470	Colorectum	Both sexes		5,128	41 Frequently	1.00	Crude RR	
							3,047	27 Sometimes	1.08 (0.67-1.76)		
							5,672	40 Rarely	0.86 (0.56-1.33)		

			Insurance Corporation (KMIC) until December 31, 2002	women							
Yun YH et al. (2008) [28]	Prospective cohort	1996 to 2002	Population-based cohort ; Korea Medical Insurance Corporation; 444,963 men	Colorectum	Men	262,146 184,781	1,076 751	Low Moderate-High	1.00 0.98 (0.90-1.08)	Adjusted for age, dietary preference, LPA, smoking status, amount of alcohol drinking, body mass index, employment and fasting blood sugar as appropriate.	Crude OR; Matched by age
Kim J et al. (2009) [9]	Case-control	2001 to 2004	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Men		242 119	164 Low 106 High	1.00 0.76 (0.55-4.57)		Crude OR; Matched by age
Kim J et al. (2009) [9]	Case-control	2001 to 2004	Hospital-based (two university hospitals in Seoul, Korea)	Colorectum	Women		193 42	179 Low 60 High	1.00 0.65 (0.42-3.68)		Crude OR; Matched by age
Kim H et al. (2019) [16]	Case-control	2007 to 2014	National Cancer Center (NCC)	Colorectum	Both sexes		790 1,030	612 No 310 Yes	1.00 0.47 (0.38-0.57)	Adjusted for prior BMI, physical activity, smoking, alcohol drinking and dietary inflammatory index	

BMI, body mass index; CI, confidence interval; LPA, light physical activity; LPTA, leisure time physical activity; OR, odds ratio; RR, relative risk; TEE, total energy expenditure.