

Supplementary Table 1. Prevalence (%) of alcohol drinking in Korea.

Year	Men	Women	Total
1989*	77.5	23.5	49.3
1992*	74.6	22.6	46.9
1998**	83.4	54.9	68.4
2001**	82.7	59.5	69.8
2005**	87.2	69.8	78.5

Notes: *Korea National Health Examination Survey. **Korea National Health and Nutrition Examination Survey.

Supplementary Table 2. Daily alcohol consumption (g/day) in Korea.

Average daily alcohol consumption		
Year	Men	Women
1998	28.53	6.38
2001	26.68	5.70
2005	25.33	7.92

Notes: Korea National Health and Nutrition Examination Survey.

Supplementary Table 3. Studies included in the meta-analysis for estimating pooled RRs for alcohol drinking on cancer

Author (year)	Study period	Study subjects					Category of Alcohol intake	OR (95% CI)	Confounding variables considered
		Type and source	Definition	No. of cases	No. of controls	Age mean \pm SD			
Oral cavity									
Jee SH et al (2010)	1993-2001	Korea Medical Insurance Corporation	Cohort study	167	100	Men: 45.2 \pm 11.1	0	1.00	Incidence Adjusted for age, age ² , smoking and diabetes
Re-analysis			846,907 men	439	Women: 49.5 \pm 12.1	1~24.9	1.02 (0.85-1.22)		
			482,618 women	92		25~49.9	1.02 (0.79-1.32)		
			Age:	59		50~99.9	1.27 (0.95-1.72)		
				22		\geq 100	1.41 (0.91-2.20)		
Jee SH et al (2010)	1993-2001	Korea Medical Insurance Corporation	Cohort study	31	100	Men: 45.2 \pm 11.1	0	1.00	Mortality Adjusted for age, age ² , smoking and diabetes
Re-analysis			846,907 men	98	Women: 49.5 \pm 12.1	1~24.9	1.58(1.05-2.37)		
			482,618 women	12		25~49.9	1.33(0.67-2.65)		
				11		50~99.9	2.49(1.22-5.07)		
				9		\geq 100	5.84(2.72-12.5)		
Choi SY et al (1991)	1986-1989	Korea Cancer Center Hospital	Case/ Control Study	16	100	Men: 55.1	Non-drinker	1.00	Incidence Adjusted for cigarette smoking
			Mean age:	9	96	Case:55.1	Light	0.59(0.25-1.40)	
			Case: 55.1(men),	45	90	Control:55.4	Moderate	3.61(1.82-7.17)	
			51.3(women)	32	46	Women Case:51.3	Medium-heavy	4.23(2.13-8.40)	
				11	7	Control:51.1	Heavy	14.82(5.03-43.67)	
Pharynx									
Choi SY et al (1991)	1986-1989	Korea Cancer Center Hospital	Case/ Control study	16	100	Men: 53.4	Non-drinker	1.00	Incidence Adjusted for cigarette smoking
				20	101	Case:53.4	Light	1.22(0.60-2.50)	
				44	127	Control:53.5	Moderate	2.16(1.13-4.15)	
				40	63	Women Case:49.8	Medium-heavy	4.07(2.11-7.85)	
				13	8	Control:49.7	Heavy	11.23(4.23-29.83)	
Esophagus									
Jee SH et al (2010)	1993-2001	Korea Medical Insurance Corporation	Cohort study	196	100	Men: 45.2 \pm 11.1	0	1.00	Incidence Adjusted for age, age ² , smoking and diabetes
Re-analysis			846,907 men	854	Women: 49.5 \pm 12.1	1~24.9	1.58(1.05-2.37)		
			482,618 women	179		25~49.9	1.33(0.67-2.65)		
				123		50~99.9	2.49(1.22-5.07)		
				42		\geq 100	5.84(2.72-12.50)		
Jee SH et al (2010)	1993-2001	Korea Medical Insurance Corporation	Cohort study	128	100	Men: 45.2 \pm 11.1	0	1.00	Mortality Adjusted for age, age ² , smoking and diabetes
Re-analysis			846,907 men	548	Women: 49.5 \pm 12.1	1~24.9	2.22(1.82-2.70)		
			482,618 women	95		25~49.9	3.00(2.28-3.95)		
				66		50~99.9	4.34(3.19-5.91)		
				23		\geq 100	4.33(2.76-6.80)		

Supplementary Table 3. Studies included in the meta-analysis for estimating pooled RRs for alcohol drinking on cancer (continued)

Author (year)	Study period	Study subjects				Age mean \pm SD	Category of Alcohol intake	OR (95% CI)	Confounding variables considered
		Type and source	Definition	No. of cases	No. of controls				
Esophagus									
Kimm H et al (2010)	1992-1995	Korea Medical Insurance Corporation	Cohort study 782,632 men	185	49.0 \pm 12.3	0	1.00	Incidence Adjusted for age, age ² , Alcohol intake, aspartate aminotransferase (GOT), Body mass index, exercise	
				858	45.1 \pm 11.1	1~24.9	2.2(1.9-2.6)		
				184	42.4 \pm 8.6	25~49.9	3.1(2.5-3.8)		
				112	42.0 \pm 8.3	50~99.9	3.8(3.0-4.8)		
				44	42.3 \pm 8.2	\geq 100	4.1(2.9-5.8)		
Kimm H et al (2010)	1992-1995	Korea Medical Insurance Corporation	Cohort study 782,632 men	163	49.0 \pm 12.3	0	1.00	Mortality Adjusted for age, age ² , Alcohol intake, aspartate aminotransferase (GOT), Body mass index, exercise	
				622	45.1 \pm 11.1	1~24.9	1.9(1.6-2.3)		
				110	42.4 \pm 8.6	25~49.9	2.7(2.1-3.5)		
				76	42.0 \pm 8.3	50~99.9	3.7(2.8-5.0)		
				25	42.3 \pm 8.2	\geq 100	3.4(2.2-5.3)		
Yi SW et al (2010)	1985-2005	KangWha County Cohort Study	Cohort study 2,696 men 3,595wo men	3	55 years or older	None	1.00	Mortality Adjusted for age, history of chronic disease, smoking habit, ginseng intake, pesticide use, body mass index, education status	
				3		Low	1.04(0.17-6.32)		
				4		Moderate	2.45(0.53-11.29)		
				9		High	5.62(1.45-21.77)		
Jung EJ et al (2012)	1993-2004	Korean Multi-center Cancer Cohort (KMCC)	Cohort study 15,683 men	3	20- (3.4%)	0	1.00	Mortality Adjusted for age, BMI and smoking habit	
				1	30- (10.8%)	0.01-25g/week	2.75(0.25-30.51)		
				1	40- (19.3%)	2.01-108g/week	2.77(0.25-30.98)		
				3	50- (25.6%)	108.1-346g/week	4.98(0.83-30.04)		
				3	60- (28.8%)	>346.01 g/week	4.65(0.76-28.39)		
					70+ (12.1%)				
Colon									
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	1.35	Men: 45.2 \pm 11.1 Women: 49.5 \pm 12.1	0	1.00	Incidence Adjusted for age, age ² , smoking and diabetes	
				2635		1~24.9	0.98(0.91-1.05)		
				437		25~49.9	0.76(0.68-0.84)		
				253		50~99.9	0.85(0.74-0.98)		
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	84	Men: 45.2 \pm 11.1 Women: 49.5 \pm 12.1	\geq 100	0.84(0.68-1.05)	Mortality Adjusted for age, age ² , smoking and diabetes	
				199		0	1.00		
				406		1~24.9	1.19(1.00-1.42)		
				50		25~49.9	1.17(0.85-1.61)		
				25		50~99.9	1.21(0.79-1.86)		
7	\geq 100	0.98(0.46-2.10)							
Lim HJ et al. (2008)	1993-1998	Korea Medical Insurance Corporation	Cohort study 4,834 men 9,470 women	74	65 years or older	never	1.00	Incidence Adjusted for age and sex	
				14		0< \leq 24	0.62 (0.35-1.12)		
				8		24< \leq 48	1.13 (0.52-2.45)		
				2		48< \leq 72	1.07 (0.26-4.48)		
				8		72<	1.15 (0.28-4.72)		

Supplementary Table 3. Studies included in the meta-analysis for estimating pooled RRs for alcohol drinking on cancer (continued)

Author (year)	Study period	Study subjects				Age mean ±SD	Category of Alcohol intake	OR (95% CI)	Confounding variables considered
		Type and source	Definition	No. of cases	No. of controls				
Colon									
Kim J et al (2009)		Two university hospitals	Case/ Control study	101	96	30-79 years	<5	1.00	Incidence, Men Crude OR
				97	82		5-29	1.12(0.73-1.72)	
				163	92		≥30	1.68(1.13-2.50)	
				217	228	30-79 years	<5	1.00	
				16	9		5-29	1.87(0.76-4.90)	
2	2	≥-2	1.05(0.08-14.61)						
Yi SW et al (2010)	1985-2005	KangWha County Cohort Study	Cohort study 2,696 men 3,595wo men	6		55 years or older	None	1.00	Mortality Adjusted for age, history of chronic disease, smoking habit, ginseng intake, pesticide use, body mass index, education status
				8			Low	1.57(0.50-4.91)	
				4			Moderate	1.33(0.37-4.82)	
				8			High	2.61(0.88-7.78)	
Liver									
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	1326		Men: 45.2 ± 11.1 Women: 49.5 ± 12.1	0	1.00	Incidence Adjusted for age, age ² , smoking and diabetes
				4608			1~24.9	0.79(0.74-0.84)	
				907			25~49.9	0.88(0.80-0.96)	
				485			50~99.9	0.93(0.84-1.04)	
				215			≥100	1.27(1.09-1.48)	
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	766		Men: 45.2 ± 11.1 Women: 49.5 ± 12.1	0	1.00	Morality Adjusted for age, age ² , smoking and diabetes
				1757			1~24.9	1.03(0.95-1.12)	
				454			25~49.9	1.12(1.00-1.26)	
				242			50~99.9	1.17(1.01-1.35)	
				114			≥100	1.63(1.33-1.98)	
Shin HR et al (2004)	1990-1993	Hospital-based (Inje University Pusan Paik Hospital)	Cases: newly histologically confirmed cases Controls: patients of the same hospital	79	167	Case: 53.0 ± 8.5 Controls: 53.1 ± 8.5	no	1.00	Incidence, HCC cases Matched for sex and age (±4yrs) CLG cases Matched for sex and age (±4yrs)
				90	194		moderate	0.9 (0.7-1.4)	
				34	45		heavy	1.8 (1.0-3.2)	
				18	167		no	1.00	
				14	194		moderate	0.6 (0.3-1.4)	
				9	45		heavy	1.8 (0.8-4.4)	
Yi SW et al (2010)	1985-2005	KangWha County Cohort Study	Cohort study 2,696 men 3,595wo men	13		55 years or older	None	1.00	Mortality Adjusted for age, history of chronic disease, smoking habit, ginseng intake, pesticide use, body mass index, education status
				8			Low	0.91(0.38-2.22)	
				8			Moderate	0.94(0.38-2.28)	
				8			High	0.79(0.31-2.01)	

Supplementary Table 3. Studies included in the meta-analysis for estimating pooled RRs for alcohol drinking on cancer (continued)

Author (year)	Study period	Study subjects				Age mean \pm SD	Category of Alcohol intake	OR (95% CI)	Incidence/Mortality Confounding variables considered
		Type and source	Definition	No. of cases	No. of controls				
Larynx									
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	176 530 116 67 23		Men: 45.2 \pm 11.1 Women: 49.5 \pm 12.1	0 1~24.9 25~49.9 50~99.9 \geq 100	1.00 1.17(0.98-1.38) 1.21(0.96-1.53) 1.37(1.03-1.81) 1.39(0.90-2.15)	Incidence Adjusted for age, age ² , smoking and diabetes
Jee SH et al (2010) Re-analysis	1993-2001	Korea Medical Insurance Corporation	Cohort study 846,907 men 482,618 women	69 180 25 16 8		Men: 45.2 \pm 11.1 Women: 49.5 \pm 12.1	0 1~24.9 25~49.9 50~99.9 \geq 100	1.00 1.34(1.01-1.77) 1.54(0.96-2.48) 2.06(1.18-3.62) 2.96(1.40-6.22)	Mortality Adjusted for age, age ² , smoking and diabetes
Choi SY et al (1991)	1986-1989	Korea Cancer Center Hospital	Case/ Control study	16 20 44 40 13	100 101 127 63 8	Men: Case:58.3 Control:58. 8 Women Case:56.0 Control:56. 8	Non-drinker Light Moderate Medium- heavy Heavy	1.00 1.22(0.60-2.50) 2.16(1.13-4.15) 4.07(2.11-7.85) 11.23(4.23-29.83)	Incidence Adjusted for age, cigarette smoking
Breast									
Do MH et al. (2003)	1998-1999	Hospital -based (Hanyang and Soonchunhyang University Hospitals)	Cases: newly histologically confirmed cases Controls: patients of the same hospital	14 21 14 11 10 15 11 12	8 19 20 20 14 19 12 9	20-69 years	none <45 45-149 \geq 150 none <45 45-149 \geq 150	1.00 1.30 (0.72-2.66) 0.97 (0.64-3.10) 1.49 (0.92-3.28) 1.00 1.11(0.34-3.64) 1.28(0.35-4.73) 1.87(0.49-7.20)	Incidence, Premenopausal Adjusted for age, age at menarche, family history of breast cancer, pregnancy, experience of breast feeding, total periods of breastfeeding, total energy intake, fiber intake, vitamin A, C, E intake, and vitamin supplement use Incidence, Postmenopausal Crude OR

Supplementary Table 3. Studies included in the meta-analysis for estimating pooled RRs for alcohol drinking on cancer (continued)

Author (year)	Study period	Study subjects				Category of Alcohol intake	OR (95% CI)	Confounding variables considered
		Type and source	Definition	No. of cases	No. of controls			
Breast								
Kim H et al (2012) Re-analysis		Seoul Breast Cancer Study (SeBCS)	Cases: newly diagnosed histologically breast cancer cases Controls: breast cancer-free population who lived in the community	4,508	4,693	Beta Se(beta)	0.00825* (0.00872) Log(RR) per 10 gram/day alcohol consumption	Incidence Adjusted for age, education, family history, age at menarche, menopausal status, menopausal age, breastfeeding experiences and duration, oral contraceptive use, HRT, BMI, smoking status

* log(OR) per 10g/day alcohol consumption (standard error).

Abbreviations: OR, odds ratio; CI, confidence interval; HBsAg, hepatitis B surface antigen; anti-HCV, antibodies against hepatitis C virus.