

Table 2.52. Recent cohort studies of active smoking and breast cancer incidence by smoking status*

Cohort study	Average years follow-up, N, baseline age	Smoking status	Cases	Age-adj RR (95%CI)	Multivariate RR (95%CI)	Adjusted/matched for
Al-Delaimy et al. (2004) § Nurses' Health Study II	10 112844 25-42	Never Current Former	596 128 283		1.0 (ref) 1.12 (0.92-1.37) 1.18 (1.02-1.36)	Age, menopausal status, alcohol consumption (recent), benign breast disease, BMI, family history, height, reproductive factors (age at menarche, age at first birth, oral contraceptive use, parity)
Reynolds et al. (2004a) California Teachers Study	5 116544	Never Current Former	1174 141 690		1.0 (ref) 1.32 (1.10-1.57) 1.08 (0.98-1.19)	Age, menopausal status, alcohol consumption, BMI, , BMI*menopause, family history, HRT use, physical activity, reproductive factors (age at menarche, age at 1 st full term pregnancy, parity), race/ethnicity
Gram et al. (2005) Norwegian-Swedish Women's Lifestyle/Health Cohort	9 91125 30-50	Never Current Former	137 360 NS	1.00 (ref) † 1.18 1.05	1.0 (ref) 1.17 (0.95-1.45) 1.15 (0.94-1.41)	Age, menopausal status, alcohol consumption, BMI, reproductive factors (age at menarche, age at first birth, number of children, oral contraceptive use)
Hanaoka et al. (2005) Japan Public Health Center Study, Cohort I	10 21805 40-59	Never Current Former	162 14 4	1.0 (ref) ‡ 1.5 (0.9-2.6) 1.4 (0.5-3.8)	1.0 (ref) 1.7 (1.0-3.1) 1.1 (0.4-3.5)	Age, menopausal status, alcohol consumption, benign breast disease, BMI, education, employment status, family history, HRT, occupation, reproductive factors (age at menarche, parity), study center
Olson et al. (2005) Iowa Women's Health Study	14 37105 55-69	Never Current Former	1316 280 399	1.0 (ref) 1.06 (0.93-1.20) 1.11 (0.99-1.24)	1.0 (ref) 1.19 (1.03-1.37) 1.08 (0.95-1.22)	Age, alcohol consumption, BMI, BMI at 18, education, family history, HRT, waist-hip ratio, physical activity, reproductive factors (age at menarche, age at 1 st birth, parity, age at menopause, oral contraceptive use)
Cui et al. (2006) National Breast Screening Study (Canada)	16 89835 40-59	Never Current Former	2249 1051 1164		1.0 (ref) 1.18 (1.09-1.27) 1.00 (0.93-1.08)	Age, menopausal status, alcohol consumption, benign breast disease, BMI, breast self-exam, education, HRT, family history, vigorous physical activity, randomization group, reproductive factors (age at menarche, oral contraceptive use, parity) , study center
Ha et al. (2007) US Radiologic Technologists	15 56042 22-92 (mean 37)	Never Current Former	294		1.0 (ref) 1.13 (0.96-1.32) 1.17 (0.99-1.38)	Age at baseline, menopausal status, alcohol consumption, BMI, family history, HRT, reproductive factors (age at menarche, age at first birth, parity), year first worked as radiologic technologist
Thun et al. (2009), in preparation) § Cancer Prevention Study-II	13 73391	Never Current Former	1737 211 1325	1.0 (ref) 1.14 1.17	1.0 (ref) 1.20 (1.04-1.39) 1.12 (1.04-1.21)	Age, alcohol consumption, benign breast cysts, BMI, education, family history, HRT, reproductive factors (age at menarche, age at first birth, age at menopause, oral contraceptive use), screening (recent mammography), race

*Cohorts published since 2004 IARC review with data by smoking status (excludes Lawlor et al. (2004) because of small size and short follow-up)

†Confidence intervals not provided

‡Adjusted for age and study site

§Updated smoking status during follow-up