

**Table 2.2.12a Cohort studies of measures of body fatness and cancer of the cervix**

Reference Study location Follow-up period	Total number of subjects Incidence/mortality	Organ site (ICD code)	Exposure categories	Exposed cases	Relative risk (95% CI)	Covariates Comments
Wolk et al. (2001) Sweden Obesity cohort in Swedish Inpatient Register 1965–1993	19 964 obese hospital patients Incidence	Cervix uteri ICD-7: 171	Diagnosis of obesity	51	1.4 (1.1–1.9)	Discharge diagnosis of obesity: ICD-7: 287.00, 287.09; ICD-8: 277.99; ICD-9: 278A Only first cancers were counted, and autopsy-incidental cancers were excluded
Calle et al. (2003) USA Cancer Prevention Study II (CPS II) 1982–1998	495 477 Mortality	Cervix	BMI 18.5–24.9 25.0–29.9 30.0–34.9 35.0–39.9 [ <i>P</i> <sub>trend</sub> ]	80 54 16 14	1.00 1.38 (0.97–1.96) 1.23 (0.71–2.13) 3.20 (1.77–5.78) [0.001]	Age, education, smoking status and number of cigarettes smoked, physical activity, alcohol consumption, marital status, race, aspirin use, use of estrogen replacement therapy, fat consumption, vegetable consumption
Rapp et al. (2005) Austria 1985–2001	78 484 Incidence	Cervix ICD-9: 180	BMI 18.5–24.9 ≥ 30.0 [ <i>P</i> <sub>trend</sub> ]	41 6	1.00 0.69 (0.29–1.66) [0.37]	Age at enrolment, smoking status, occupational group
Reeves et al. (2007) United Kingdom Million Women Study 1996–2005	1.3 million women aged 50– 64 yr Incidence and mortality	Cervix ICD-10: C53	BMI per 10 kg/m <sup>2</sup>	330	1.04 (0.79–1.38)	Age, geographical region, socioeconomic status, reproductive history, smoking status, alcohol intake, physical activity, time since menopause, HRT use
Song et al. (2008) Republic of Korea 1994–2003	170 481 postmenopausal women aged 40–64 yr Incidence	Cervix ICD-10: C53	BMI per 1 kg/m <sup>2</sup>	488	1.02 (0.99–1.05)	Age, height, smoking status, alcohol intake, physical exercise, income level

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Parr et al. (2010) Pooled data from 39 cohorts worldwide	175 364 Mortality	Cervix ICD-9: 180 ICD-10: C53	BMI 12.0–18.4 18.5–24.9 25.0–29.9 30.0–60.0 per 5 kg/m <sup>2</sup>	60	2.11 (0.93–4.77) 1.00 (0.65–1.55) 1.29 (0.68–2.46) 4.21 (1.89–9.39) 1.45 (1.00–2.11)	Age, smoking
Ulmer et al. (2012) Austria, Norway, and Sweden Metabolic Syndrome and Cancer Project (Me-Can) cohort	288 274 Incidence	Cervix ICD-7: 171	BMI, quintiles Q1 Q2 Q3 Q4 Q5 [ <i>P</i> <sub>trend</sub> ]	425 82 74 92 87 90	1.00 0.94 (0.66–1.34) 1.24 (0.88–1.73) 1.20 (0.85–1.69) 1.33 (0.94–1.88) [0.06]	Cohort population overlaps with Rapp et al. (2005)
Lee et al. (2013) Republic of Korea 2006–2012	1125 women aged 18–65 yr Incidence	Cervix	BMI ≥ 25 vs 18.5–22.9 [ <i>P</i> <sub>trend</sub> ]	200 19	1.70 (1.10–2.63) [0.02]	Age, parity, smoking status, menopausal status, HPV infection status (negative or positive), alcohol consumption status, oral contraceptive use
Bhaskaran et al. (2014) United Kingdom Clinical Practice Research Datalink cohort 1987–2012	2 864 658 Incidence	Cervix ICD-10: C53	BMI per 5 kg/m <sup>2</sup> increase [ <i>P</i> <sub>trend</sub> ]	1389	HR (99% CI) 1.10 (1.03–1.17) [0.00035]	Age, calendar year, diabetes status, alcohol consumption, smoking, socioeconomic status

BMI, body mass index (in kg/m<sup>2</sup>); CI, confidence interval; HPV, human papillomavirus; HR, hazard ratio; HRT, hormone replacement therapy; ICD, International Classification of Diseases; yr, year or years

**Table 2.2.12b Case-control studies of measures of body fatness and cancer of the cervix**

Reference Study location Study period	Total number of cases Total number of controls Source of controls	Exposure categories	Exposed cases	Relative risk (95% CI)	Covariates Comments
Cusimano et al. (1989) Italy 1983–1985	39 invasive cervical cancer 156 Hospital	BMI > 30 vs < 22	12	1.91 (0.54–6.71)	None
Brinton et al. (1993) Colombia, Costa Rica, Mexico, Panama 1986–1987	667 SCC, 43 adenocarcinoma 1467 Mostly hospital	Weight (kg) ≥ 65 vs < 55 SCC Adenocarcinoma	44 12	1.0 (0.7–1.2) 1.6 (0.6–3.8)	Age
Ursin et al. (1996) USA 1977–1991	195 adenocarcinomas 386 Neighbourhood	Weight gain from age 18 yr to diagnosis > 10 kg vs none [ <i>P</i> <sub>trend</sub> ]	75	2.7 (1.5–4.8) [0.4]	Education level, income, number of sexual partners, number of sexual partners before age 20 yr, duration of diaphragm use, history of stillbirths, genital warts, oral contraceptive use
Lacey et al. (2003) USA 1992–1996	124 adenocarcinoma, 139 SCC 307 Community	BMI ≥ 30 vs < 25 WHR Highest vs lowest tertile BMI ≥ 30 vs < 25 WHR Highest vs lowest tertile		Adenocarcinoma: 2.1 (1.1–3.8) 1.8 (0.97–3.3) SCC: 1.6 (0.84–2.9) 1.6 (0.89–2.8)	HPV infections status, months since last Pap smear, age at last pregnancy
Máchová et al. (2007) Czech Republic 1987–2002	106 invasive cervical cancer 16 996 Community	BMI Overweight Obesity	NR	1.35 (0.76–2.41) 1.72 (0.92–3.22)	Age, smoking, hypertension, height

BMI, body mass index (in kg/m<sup>2</sup>); CI, confidence interval; HPV, human papillomavirus; NR, not reported; SCC, squamous cell carcinoma of the cervix; vs, versus; WHR, waist-to-hip ratio; yr, year or years

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