

**Table 2.4. Case-control studies of combined estrogen-progestogen oral contraceptives and endometrial cancer**

Reference, location	Age	Source of controls	Ascertainment of use	Participation (%)		Type/measure of use	No. of subjects		Odds ratio (95% CI)
				Cases	Controls		Cases	Controls	
Kaufman et al. (1980), Canada and USA	< 60 years	Hospital patients	Personal interviews	96 <sup>a</sup>	96 <sup>a</sup>	No use	136	411	1.0
						Ever use	16	105	[0.4 (0.2–0.8) <sup>b</sup> ]
						<i>Duration (years)</i>			
						< 1	5	14	0.8 (NR)
						1–2	6	32	0.5 (NR)
						≥ 3	5	53	0.3 (NR)
						Unknown	0	6	
						<i>Recency of use (years)</i>			
Weiss & Sayvetz (1980), Washington State, USA	36–55 years	General population	Personal interviews	83	96	≥ 5 years	12	60	0.6 (0.3–1.2)
						≥ 1 year	8	52	0.5 (0.2–1.0)
						No use or < 1 year of use	93	173	1.0
						≥ 1 year of use	17	76	0.5 (0.1–1.0)
Hulka et al. (1982), North Carolina, USA	< 60 years	General population	Personal interviews and medical record reviews	90 <sup>a</sup>	90 <sup>a</sup>	No use or < 6 months' use	74	172	1.0
						≥ 6 months' use	5	31	0.4 (NR)
						<i>Duration (years)</i>			
						< 5	3	14	0.6 (NR)
						≥ 5	2	17	0.3 (NR)
						<i>Recency (years)</i>			
Kelsey et al. (1982), Connecticut, USA	45–74 years	Hospital patients	Personal interviews	67	72	< 1	0	13	–
						≥ 1	5	14	0.9 (NR)
						No use	NR	NR	1.0
						Each 5 years of use	NR	NR	0.6 (0.3–1.5)
						<i>Age 45–55 years</i>			
						No use	31	256	1.0
Henderson et al. (1983a), Los Angeles county, USA	≤ 45 years	Residents in neighbourhood of cases	Telephone interviews	81	NR	<i>Duration (years)</i>			
						< 2	23	22	0.8 (NR)
						2–3	12	11	0.8 (NR)
						4–5	4	9	0.3 (NR)
						≥ 6	4	18	0.1 (NR)
						No use	67	50	1.0
La Vecchia et al. (1986), greater Milan, Italy	< 60 years	Hospital patients	Personal interviews	98 <sup>c</sup>	98 <sup>c</sup>	<i>Duration (years)</i>			
						Ever use	163	1104	1.0
							7	178	0.50 (0.23–1.12)

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				Cases	Controls		Cases	Controls	
Pettersson et al. (1986), Uppsala, Sweden	≤ 60 years	General population	Personal interviews	93	80	No use	96	91	1.0
						Ever use	12	22	0.5 (0.2–1.1)
						<i>Duration (years)</i>			
						< 1	5	6	0.8 (0.2–2.7)
CASH (1987a), eight US areas	20–54 years	General population	Personal interviews	73	84	≥ 1	7	16	0.4 (0.2–1.0)
						No use	250	1147	1.0
						Ever use	NR	NR	0.5 (0.4–0.6)
						<i>Duration (months)</i>			
						3–6	24	186	0.9 (0.5–1.5)
						7–11	13	80	1.3 (0.6–2.6)
						12–23	20	266	0.7 (0.4–1.2)
						24–71	26	576	0.4 (0.3–0.7)
						72–119	12	317	0.4 (0.2–0.8)
						≥ 120	15	241	0.4 (0.2–0.8)
						<i>Recency (years)</i>			
						< 5	12	471	0.3 (0.1–0.5)
						5–9	22	417	0.4 (0.2–0.6)
WHO (1988); Rosenblatt & Thomas (1991), nine centres in seven countries: Australia, Chile, China, Israel, Mexico, the Philippines, Thailand	< 60 years	Hospital patients	Personal interviews	87	93	10–14	30	368	0.5 (0.3–0.8)
						≥ 15	9	144	0.3 (0.2–0.6)
						No use	182	1072	1.0
						<i>Progestogen content</i>			
						High			
						Ever use	3	156	0.1 (0.1–0.4)
						<i>Duration (months)</i>			
						1–24	1	85	0.1 (0.0–0.7)
						≥ 25	2	69	0.2 (0.0–0.8)
						<i>Recency (months)</i>			
						1–120	1	61	0.1 (0.0–0.8)
						≥ 121	2	93	0.2 (0.0–0.7)
						Low			
						Ever use	9	132	0.6 (0.3–1.2)
						<i>Duration (months)</i>			
						1–24	8	69	1.0 (0.5–2.4)
						≥ 25	1	56	0.1 (0.0–1.1)
						<i>Recency (months)</i>			
						1–120	2	72	0.3 (0.0–1.1)
						≥ 121	7	54	1.1 (0.5–2.8)

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				Cases	Controls		Cases	Controls	
Koumantaki et al. (1989), Athens, Greece	40–79 years	Hospital patients	Personal interviews	80	95	No use or ≤ 6 months' use > 6 months' use	80 3	151 13	1.0 0.6 (0.2–2.0) <sup>d</sup>
Levi et al. (1991), Canton of Vaud, Switzerland	32–75 years	Hospital patients	Personal interviews	85 <sup>a</sup>	85 <sup>a</sup>	No use	105	227	1.0
						Ever use	17	82	0.5 (0.3–0.8)
						<i>Duration (years)</i>			
						< 2	9	19	1.0 (0.5–2.3)
						2–5	3	18	0.5 (0.1–1.2)
						> 5	5	45	0.3 (0.1–0.7)
						<i>Recency (years)</i>			
						< 10	4	30	0.3 (0.1–0.9)
Shu et al. (1991), Shanghai, China	18–74 years	General population	Personal interviews	91	96	> 10–19	7	37	0.4 (0.2–1.0)
						> 19	5	15	0.8 (0.3–2.2)
						No use of any birth control	84	72	1.0
						Ever use of oral contraceptives	32	46	0.8 (0.4–1.8)
						<i>Duration (years)</i>			
Jick et al. (1993), Washington State, USA	50–64 years	Members of health maintenance organization	Mailed form and pharmacy database	83	79	≤ 2	NR	NR	1.4 (0.6–3.0)
						> 2	NR	NR	0.4 (0.1–1.2)
						No use	110	737	1.0
						Ever use	26	270	0.5 (0.3–0.9)
						<i>Duration (years)</i>			
						1	7	65	0.4 (0.1–1.4)
						2–5	11	90	0.8 (0.3–1.7)
						≥ 6	8	115	0.3 (0.1–0.9)
						<i>Recency (years)</i>			
						1–10	5	67	0.4 (0.1–1.1)
						11–15	6	82	0.4 (0.1–1.2)
						16–20	4	57	0.5 (0.1–1.8)
						≥ 21	9	54	0.6 (0.2–2.1)

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				Cases	Controls		Cases	Controls	
Stanford et al. (1993), five US areas	20–74 years	General population	Personal interviews	87	66	No use	321	187	1.0
						Ever use	81	107	0.4 (0.3–0.7)
						<i>Duration (years)</i>			
						< 1	27	21	0.7 (0.3–1.4)
						1–2	16	33	0.3 (0.1–0.6)
						3–4	12	16	0.3 (0.1–0.8)
						5–9	14	15	0.7 (0.3–1.6)
						≥ 10	7	19	0.2 (0.1–0.5)
						<i>Recency (years)</i>			
						< 10	6	18	0.1 (0.0–0.3)
						10–14	15	27	0.3 (0.1–0.7)
Voigt et al. (1994)e, Washington State, USA	40–59 years	General population	Personal interviews	83	95 and 73 <sup>f</sup>	No use or < 1 year of use	117	284	1.0
						<i>Recency of use</i>			
						> 10 years			
						<i>Duration (years)</i>			
						1–5	14	30	0.9 (0.4–1.9)
						> 5	4	16	0.4 (0.1–1.2)
						≤ 10 years			
						<i>Duration (years)</i>			
						1–5	7	28	1.0 (0.4–2.4)
						> 5	7	74	0.3 (0.1–0.6)
						<i>Progestogen content</i>			
Kalandidi et al. (1996), Athens, Greece	(≤ 59) + (60–69) + (≥ 70) years	Hospital patients	Personal interviews	83	88	Low			
						<i>Duration (years)</i>			
						1–5	10	22	1.1 (0.5–2.6)
						> 5	3	32	0.2 (0.1–0.8)
						High			
Salazar-Martinez et al. (1999), Mexico City, Mexico	37.1 (mean) years	Hospital patients	Personal interviews	100	93	<i>Duration (years)</i>			
						< 1	6	78	0.56 (0.22–1.30)
						> 1	7	117	0.36 (0.15–0.83)

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				Cases	Controls		Cases	Controls	
Weiderpass et al. (1999), Sweden	50–74 years	General population	Self-completed questionnaire	75	80	No use <i>Duration (years)</i> < 3 > 3	551 91 45	2252 421 518	1.0 1.0 (0.7–1.3) 0.5 (0.3–0.7)
Jain et al. (2000), Ontario, Canada	30–79 years	Population	Personal interview	70	59	No use Ever use	317 195	265 248	1.0 0.66 (0.51–0.84)
Parslov et al. (2000), Denmark	> 50 years	Population	Self-completed questionnaire	93	91	No use <i>Duration (years)</i> < 1 1–5 > 5	90 52 50 45	75 95 210 158	1.0 0.4 (0.3–0.7) 0.2 (0.1–0.3) 0.2 (0.1–0.4)
Newcomb & Trentham-Dietz (2003), Wisconsin, USA	40–79 years	Population	45 min telephone interview	87	85.2	No use <i>Duration (years)</i> < 3 > 3	460 74 54	1494 260 275	1.0 1.04 (0.74–1.40) 0.73 (0.52–1.02)
Tao et al. (2006), Shanghai, China	30–69 years	Population	Personal interview	1204	1212	No use Ever use <i>Duration (years)</i> < 6 6–23 24–72 > 72 <i>Recency (years)</i> 1–24 ≥ 25	981 223 73 58 65 27 128 95	910 302 59 70 93 80 158 144	1.00 0.75 (0.60–0.93) 0.94 (0.64–1.38) 0.74 (0.50–1.09) 0.75 (0.52–1.07) 0.50 (0.30–0.85) 0.96 (0.72–1.27) 0.57 (0.42–0.78)
Okamura et al. (2006), Japan	20–80 years	Cervical cancer screening clinic	Personal interview	155	96	No use Ever use	152 3	86 9	1.00 0.16 (0.04–0.66)

CI, confidence interval; NR, not reported

<sup>a</sup> Responses reported for case and control women combined

<sup>b</sup> Crude odds ratio and 95% CI calculated from data provided in the published paper by exact methods

<sup>c</sup> Methods state that less than 2% of eligible case and control women refused an interview.

<sup>d</sup> 90% confidence interval

<sup>e</sup> Includes women from the study of Weiss & Sayvetz (1980)

<sup>f</sup> Response for controls identified in 1985–87