

Table 2.1. Case-control studies of combined estrogen-progestogen oral contraceptives and breast cancer

Reference, location	Years of case diagnosis	Age (years)	Histology	Use	Ever versus never				Longest duration of use				Current/recent use				Time since last use			
					Cases	Controls	Odds ratio	95% CI	Cases	Controls	Odds ratio	95% CI	Use (years)	Cases	Controls	Odds ratio		95% CI		
Brinton et al. (1998), USA	1990-92	< 55	in situ or invasive	Never	283	278	Ref.		283	278	Ref.		≥ 10							
				Ever	748	641	1.14	0.9-1.4	173	127	1.27	0.9-1.7								
Chie et al. (1998), Taiwan, China	1993-94	NS	NS	Never	149	406	Ref.		149	406	Ref.									
				Ever	25	47	1.7	0.9-3.2	9	15	2.1	0.8-5.6	≥ 5							
Ursin et al. (1998), USA	1983-88	≤ 40	in situ and invasive	Never	124	116	Ref.		124	116	Ref.			124	116	Ref.				
				Ever	618	626	0.83	0.62-1.12	52	30	1.4	0.81-2.40	> 12	111	84	1.14	0.75-1.72	< 1 year		
Magnusson et al. (1999), Sweden	1993-95	50-74	Invasive	Never	1733	1938	Ref.		1733	1938	Ref.			1733	1938	Ref.				
				Ever	898	889	0.98	0.86-1.12	357	353	0.98	0.82-1.18	≥ 5	73	59	1.0	0.69-1.44	< 10 years		
Ursin et al. (1999), USA	1983-87	20-55	NS		383	594	Ref.		383	594	Ref.			383	594	Ref.				
					207	351	0.91	0.72-1.15	45	87	0.71	0.47-1.07	> 5	29	63	0.68	0.41-1.14	< 5 years		
Shapiro et al. (2000), South Africa	1994-97	20-54	Invasive	Never	264	992	Ref.		264	992	Ref.			264	992	Ref.				
				Ever	220	633	1.2	1.0-1.5	16	39	1.2	0.7-2.3	> 10	16	53	1.2	0.7-2.0	< 5 years		
Tessaro et al. (2001), Brazil	1995-98	20-60	NS	Never	45 ^a	141 ^a	Ref.		45 ^a	141 ^a	Ref.									
					42 ^b	112 ^b	Ref.		41 ^b	111 ^b	Ref.									
				Ever	127 ^a	375 ^a	1.1	0.7-1.6	38 ^a	92 ^a	1.2	0.7-2.0	> 12							
				126 ^b	392 ^b	0.9	0.6-1.6	35 ^b	123 ^b	1.0	0.5-1.8									
Heimdal et al. (2002), Norway	1999	40-60	NS	Never	NR	NR	Ref.							NR	NR					
				Ever	NR	NR	0.9	0.68-1.18						NR	NR	1.99	0.80-4.98	0-4 years		
Marchbanks et al.	1994-98	35-64	Invasive	Never	1032	980	Ref.		1032	980	Ref.			1032	980	Ref.				

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(2002), USA				Ever	3497	3658	0.9	0.8–1.0	234	202	1.0	0.8–1.3	> 15	200	172	1.0	0.8–1.3	< 7 months
Narod et al. (2002)c, 11 countries	1977–2001	47.3 ± 10	Invasive	Never	NR	NR	Ref.							NR	NR	Ref.		
				Ever	NR	NR	1.2	1.02–1.52							NR	NR	0.83	0.66–1.04
Althuis & Brinton (2002), USA	1990–92	20–44	in situ and invasive	Never	371	406	Ref.											
				Ever	1269	1086	1.24	1.0–1.5						309	258	1.47	1.2–1.9	≤ 5 years
Claus et al. (2003), USA	1994–98	20–79	Ductal carcinoma in situ	Never	425	465	Ref.		425	465	Ref.			425	465	Ref.		
				Ever	404	522	1.0	0.8–1.2	47	61	0.9	0.6–1.5	≥ 10	17	38	0.6	0.3–1.3	< 1 year
Newcomer et al. (2003), USA	NS	< 75	Ductal	Never	3391	5864	Ref.											
				Ever	1 676	3 447	1.0	0.9–1.1						47	141	1.2	1.0–7.1	
			Lobular	Never	334	5864	Ref.											
Ever	159	3 447	1.2	0.9–1.6									6	141	2.6	0.8–1.9		
Jernström et al. (2005), Sweden	1900–95	≤ 40	Invasive	Never	87	365	Ref.											
Ever	139	370	1.65	0.95–2.87														
Sweeney et al. (2007), USA	1999–2004	All	Ductal and Lobular	Never	809	1011	Ref.		809	1011	Ref.		≥ 20	809	1011	Ref.		
				Ever	1 494	1 502	1.08	0.94–1.24	84	54	1.05	1.04–2.17		223	200	1.27	0.99–1.63	< 5 years
			Ductal	Never	575	1011	Ref.		575	1011	Ref.		≥ 20	575	1011	Ref.		
Ever	1 044	1 502	1.05	0.90–1.22	56	54	1.36	0.91–2.04		164	200	1.23	0.94–1.62	< 5 years				
All	Lobular	Never	53	1011	Ref.		53	1011	Ref.		≥ 20	53	1011	Ref.				
		Ever	121	1 502	1.20	0.82–1.75	9	54	2.08	0.93–4.62		13	200	1.21	0.59–2.45	< 5 years		
Gill et al. (2006), USA	1995–98	35–64	in situ	Never	124	133	Ref.		124	43	Ref.		≥ 10	124	113	Ref.		
				Ever	443	481	1.04	0.76–1.42	102	97	1.09	0.72–1.64		40	39	0.86	1.48–1.54	≤ 5 years

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Li et al. (2003), USA	1997-99	65-79	Ductal	Never					508	752	Ref		≥ 5						
				Ever					58	86	1.0	0.7-1.4							
			Lobular	Never					508	752	Ref		≥ 5						
				Ever					24	86	1.6	1.0-2.6							
Rosenberg et al. (2006), Sweden	1993-95	50-74	Ductal	Never					1237	2030	Ref		≥ 5						
				Ever					215	331	0.9	0.7-1.1							
			Lobular	Never					198	2030	Ref		≥ 5						
				Ever					42	331	0.9	0.6-1.4							
Nyante et al. (2008), USA	1990-92	20-49	Ductal	Never	276	425	Ref		276	425	Ref		≥ 4	276	425	Ref			
				Ever	888	1 076	1.21	1.01-1.45	523	590	1.30	1.06-1.59			138	165	1.45	1.08-1.96	
			Lobular	Never	25	425	Ref		25	425	Ref		≥ 4	25	425	Ref			
				Ever	75	1 076	1.10	0.68-1.76	47	590	0.92	0.53-1.59			2	165	0.33	0.08-1.47	

CI, confidence interval; NR, not reported; NS not specified; Ref., reference

^a Hospital cases/controls

^b Neighbourhood cases/controls

^c Results only for *BRCA1* mutation carriers