

**Dieldrin**

Prospective (nested case-control studies)

Blood measures

Study (reference)	Country	Study design			Unadjusted results		Adjusted results			Blood levels		Comments
		No of Cases	No of Controls	Comparison for OR	OR/RR (95% CI)	Trend test (p)	OR/RR (95% CI)	Adjusted for	Trend test (p)	Mean DDE (cases)	Mean DDE (controls)	
Dorgan et al (1999) Cancer causes and control 10, 1-11 Nested case-control study	USA	105	207	Highest compared to the lowest quartile			Relative Risk 0.6 (0.3-1.4)	Matched by age, benign breast disease diagnosis during prior 2 years, month and year of blood collection	0.26	Not reported	Not reported	
Hoyer et al. (1998) The Lancet 352, 1816-1820	Denmark	237	469	Highest compared to lowest quartile	2.25 (0.32-3.84)	0.003	2.05 (1.17-3.57)	Age, number of full term pregnancies and weight	0.01	Not reported		Study included large number (46 of statistical comparisons).

**Dieldrin**

Retrospective (case-control studies)

Blood measures

Study (reference)	Country	Study design			Unadjusted results		Adjusted results			Blood levels		Comments
		No of Cases	No of Controls	Comparison for OR	OR/RR (95% CI)	Trend test (p)	OR/RR (95% CI)	Adjusted for	Trend test (p)	Mean DDE (cases)	Mean DDE (controls)	
Gammon et al. (2002) Cancer Epidemiology, Biomarkers & Prevention, 11, 686-697 Population-based case-control study 646 cases, 428 controls		646	428	Upper quintile compared to lowest quintile			Multivariate-adjusted odds ratio (OR) 1.37 (0.69-2.72)		0.05	Geometric means (serum) 20.40ng/g lipid	Geometric means (serum) 21.29ng/g lipid	No increase in risk due to Breastfeeding status, weight, postmenopausal status, invasive <i>in situ</i> disease, hormone receptor positive tumour

**Dieldrin****Hormone Receptor Status****Blood measures**

		Study design			Unadjusted results		Adjusted results			Blood levels		Comments
Study (reference)	Country	No of Cases	No of Controls	Comparison for OR	OR/RR (95% CI)	Trend test (p)	OR/RR (95% CI)	Adjusted for	Trend test (p)	Mean DDE (cases)	Mean DDE (controls)	
Høyer et al. (2001) BMC Cancer, 1, 8  Nested Case control study	Denmark	161	161				Odds ratio (OR)  ER-  7.6 (1.3-46.1) 44 cases 92 controls		0.01	Median serum level  28.3ppb	Not reported	High dieldrin levels were positively associated with increased risk in developing estrogen receptor negative breast cancer.  Details of analysis similar to Hoyer <i>et al.</i> , 2000a]
							ER+ 1.4 (0.8-2.5) 116 cases 226 controls		>0.2			

**Dieldrin**  
**Other studies**  
**Blood measures**

		Study design			Unadjusted results		Adjusted results			Blood levels		Comments
Study (reference)	Country	No of Cases	No of Controls	Comparison for OR	OR/RR (95% CI)	Trend test (p)	OR/RR (95% CI)	Adjusted for	Trend test (p)	Mean DDE (cases)	Mean DDE (controls)	
Høyer et al. (2002) Breast Cancer Research and Treatment, 71, 59-65  Nested case control study	Denmark	240	477	Highest compared to lowest quartile			<b>Odds Ratio</b>	Age, parity, body weight, HRT	0.12	Serum levels of organochlorines were not reported		[Limited details of chemicals analysed]
		162 (p53 mutation analysis)					<b>P53 mutation</b>  3.53 (0.79-15.79) 36 cases, 72 controls  <hr/> <b>Wild type p53</b>  1.20 (0.56-2.58) 123 cases, 244 controls					
Høyer et al. (2000a) Journal of Clinical Epidemiology, 53, 323-330  Breast survival analysis (cohort of 7712 women)	Denmark	Exam 1 <sup>st</sup> 1976-1978  195 2 <sup>nd</sup> 1981-1983  155					<b>Relative Risk (RR)</b>  65 cases 65 controls  1 <sup>st</sup> 2.71 (1.54-4.77)  <hr/> 2 <sup>nd</sup> 4.55 (1.80-11.47), p for trend < 0.01	Age	< 0.01  <hr/> <0.01	Mean serum levels  1 <sup>st</sup> 38.41ng/g lipid  2 <sup>nd</sup> 27.78ng/g lipid		[Analysis of dieldrin, beta-HCH, HCB, op DDT, op DDE, pp DDT, pp DDE, pp DDD and 27 PCB congeners + total PCB]