

# Contraception and Breast Cancer

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Oral contraceptive use is weakly associated with breast cancer risk in the general population, but the association among women with a familial predisposition to breast cancer is less clear. Recent studies indicating that oral contraception may increase the risk of breast cancer more in subjects who are BRCA 1 or BRCA 2 mutation carriers.

Features of hormonal contraceptive use, such as duration of use, age at first use, and the dose and type of hormone within the contraceptives, have little effect on breast cancer risk. Women who begin use before age 20 have higher relative risks of having breast cancer diagnosed while they are using combined oral contraceptives and in the 5 years after stopping than do women who begin use at older ages.

Given that the influence of oral contraceptives on the breast has been hypothesized to be greatest before the cellular differentiation that occurs with a first pregnancy. A significant trend of increasing risk with first use before age 20 years was observed. Among women diagnosed at ages 30 to 34 years the relative risk associated with recent oral contraceptive use was 1.54 if use began before age 20 years and 1.13 if use began at older ages.

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Breast cancer is the second most common cancer in Thai women. From the statistical report from the Siriraj Cancer Center in the year 2003, we found 552 cases of breast cancer or 19.99% of cancer in Thai female (Table 1).

We have collected the data of breast cancer patients who were treated at Division of Head Neck

and Breast Surgery, Faculty of Medicine Siriraj Hospital for 19 years from 1983 to 2001. There were 3559 cases include 11 males About half of the cases were in the age between 40-54 years (Table 2).

Twenty percent of patients were single. The majority were married between age of 20-24 year old range and 25-30 year old range (Table 3).

**Table 1.** Statistical report from Siriraj Cancer Center in the year 2003, The ten leading sites

Site	Total		Female		Male			
	Number	Percent	Number	Percent	Number	Percent		
All sites	4,663		2,727	58.48	1,936	41.52		
Cervix	618	13.25	1	618	22.66	0		
Breast	552	11.84	2	545	19.99	7		
Colon Rectum	360	7.72	3	164	6.01	2	196	10.12
Lung	301	6.46	8	91	3.34	1	210	10.85
Lymphoma	301	6.46	4	151	5.54	4	150	7.75
Leukemia	294	6.30	5	148	5.43	6	146	7.54
Liver	213	4.57		65		5	148	7.64
Prostate	173	3.71		0		3	173	8.94
Oral cavity	147	3.15		62		8	85	4.39
Skin	131	2.81	10	74	2.71		57	

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**Table 2.** Breast cancer patients from 1983-2001 (Division of Head Neck and Breast Surgery)

Age	Number	Percent
< 20	5	
20-24	10	
25-29	67	1.88
30-34	193	5.42
35-39	417	11.71
40-44	603	16.94
45-49	674	18.93
50-54	554	15.56
55-59	369	10.36
60-64	268	7.53
65-69	172	4.83
70-74	129	3.62
75-79	61	1.71
80-84	29	
85-89	10	

Seventy percent of breast cancer patients never used oral contraceptive pills and only 3.57% were current users (Table 4).

Given that on influence of oral contraceptives on the breast has been hypothesized to be greatest before the cellular differentiation that occurs with a first pregnancy. From our data there were just only 252 cases or 7.10% of patients used oral contraceptive before their first pregnancy (Table 5).

About 25% of cases used oral contraceptive between 3-5 years and 20% used 6-10 years (Table 6).

Conclusion, oral contraceptive have been extensively studied in relation to breast cancer risk. Although the majority of studies have not confirmed an overall excess risk associated with oral contraceptive use. There has also been interest in whether specific formulations of oral contraceptives have unique influences on breast cancer risk. No consistent relationships have been seen with either dose of the progestin or estrogen.

**Table 3.** Marital Status

	Number	Percent
Single	702	19.78
Married before 20 years	519	14.63
Married between 20-24 years	960	27.05
Married between 25-30 years	953	26.86
Married after 30 years	396	11.68

**Table 4.** Oral Contraceptive Use

	Number	Percent
Never	2,518	70.97
Previously	884	24.91
Still use	127	3.57

**Table 5.** First Use of Oral Contraceptive

	Number	Percent
Never	2,518	70.71
Before first pregnancy	252	7.10
After first pregnancy	362	10.20
After second pregnancy	198	5.58
After third pregnancy	87	2.45
After fourth pregnancy	101	2.48

**Table 6.** Duration of Oral Contraceptive Use

	Number	Percent
Never	2,518	70.91
1-6 months	123	3.46 (12.36)
7-12 months	168	4.73 (16.86)
1-2 years	144	4.06 (14.47)
3-5 years	254	7.16 (25.52)
6-10 years	198	5.58 (19.90)
More than 10 years	108	3.04 (10.85)