

Use of hormonal contraceptives and risk of cancer, the NOWAC study

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Background. Use of hormonal contraceptives and the risk of cancer is still a question of current interest.

Material and methods. The Norwegian Women and Cancer Cohort Study (NOWAC) was initiated to study use of hormonal contraceptives and risk of cancer. NOWAC is a population based prospective cohort study including randomly selected Norwegian women aged 31-70 years at time of first questionnaire information. From 1991-1997, 102 443 answered a four-page questionnaire. The responsible Data Inspection Boards and Ethical Committees in both countries approved the study design, and all women gave informed consent to participating in the study. In the follow-up analysis through 1999, 851 of the 96 355 eligible women had developed breast cancer, 171 ovarian cancer, 118 cervical cancer, 110 endometrial cancer and 219 colorectal cancer.

Results. The risk of breast cancer increased with increasing duration of hormonal contraceptive use (p for trend $p=0.002$), while risk of ovarian- and endometrial cancer decreased with increased duration of use (p for trend $p=0.03$ for endometrial cancer and $p<0.0001$ for ovarian cancer). No significant association between use of hormonal contraceptives and risk of breast/endometrial/ovarian cancer combined was revealed.

Interpretation. Use of hormonal contraceptives does not seem to change the overall risk of cancer. The increased risk of breast cancer is compensated by the protective effect toward endometrial- and ovarian cancer.