The use of cyclical oral contraceptives (OC) is associated with an overall increased risk of ERPositive breast cancer, particularly in current users, and women who start OC early in life. This effect of exposure (effect of initiation) increases with age at initiation, and continuous OC use is associated with a relative increase in breast cancer risk that has not been explained. The purpose of the current study was to test the hypothesis that extended (cyclic) OC use was associated with a relative increase in breast cancer risk in a large population-based cohort of women who were followed for a median of 10 years after the hormone withdrawal phase associated with both cyclical and noncyclical OC use. A total of 1.3 million women aged 20-44 years started OC use between 1973 and 1995, and follow-up of these women was extended to 2005. The cohort included all women who initiated OC use, either continuously for 24 months, or as a cyclic regimen (three cycles, followed by one cycle of basicoidal withdrawal). After 25 years, 15,000 women were diagnosed with breast cancer, 1,100 of whom were diagnosed with tumors during the extended follow-up. The observed increases were not significant, therefore either continuously for 24 months, or as a cyclic regimen, there was no significant increase in breast cancer risk. The use of continuous OC was associated with a relative increase in breast cancer risk compared to baseline risk, but the increased risk was not significant. The results of the current study support the hypothesis that extended (cyclic) OC use is associated with a relative increase in breast cancer risk.