The contraceptive pill causes hormonal changes in the body and has long been known to affect cancer risk over the course of a life. A new study suggests that the benefits outweigh the risks.

The research, published in the American Journal of Obstetrics and Gynaecology, concluded that the reduced risk of certain cancers lasted for at least 30 years after women stopped taking the pill. The study looked at data from 46,022 women recruited to the UK Royal College of General Practitioners’ Oral Contraception Study during 1968-69 who were then followed up for up to 44 years. Cancer risk was calculated for every woman and standardised taking into account age, social class and lifestyle choices such as smoking.

It was found that using the contraceptive pill was associated with a significantly reduced chance of bowel, endometrial, ovarian and lymphatic and haematopoietic cancers. Although there is a well-documented increased risk of breast and cervical cancer seen in current and recent users, it is lost within about five years of stopping oral contraception. The researchers say that, overall, the increased risks (of breast and cervical cancer) are balanced by the endometrial, ovarian and bowel cancer benefits.

**Instant analysis**

This was a prospective cohort study looking at new cases of cancer and cancer death in women using hormonal contraception (combined oral contraceptive pills or ‘the pill’). About 23,000 women were recruited into each arm of the study.

Compared to women who had never used the pill, women who had a history of pill use were 19 per cent less likely to develop bowel cancer, 44 per cent less likely to develop endometrial cancer and 33 per cent less likely to contract ovarian cancer. They were also 26 per cent less likely to contract haematopoietic cancers (lymphomas, leukemias). No increased risk of lung cancer was seen.

Breast and cervical cancer risks were elevated only in women within the first five years after discontinuing the pill, consistent with the known increased risk that occurs in women on the pill. The relative risk increase for breast cancer is 50 per cent. (So if the risk of breast cancer for a 21-year-old is one in 200,000 it would be increased to one in 100,000.) Women on the pill who do develop breast cancer tend to develop tumours that are detected early, are non-metastatic and have excellent prognosis, with surgery often curing the disease.
Women undergoing cervical cancer screening (smear tests) would be under surveillance and hence any pre-malignant changes detected before they become cancerous.

The changes in risk profile for specific cancers is not a new finding and confirms existing knowledge. Cancer can often occur many years after exposure to a risk factor, and long follow-ups are not always available to assist in assessing the impact of an intervention on cancer risk, so it was reassuring to see the known benefits of the pill, in terms of risk reduction of particular cancers — particularly ovarian cancer, the most deadly of all gynaecological cancers — persisted over many years.

Under ordinary circumstances, the study would be considered far from ideal, given that a lot of important epidemiological information was not available. Despite this, the consistency of the results with pre-existing data renders the findings extremely useful.

**Take-home message:** long-term follow up of women who have a history of pill use indicates a lowered risk of cancers of the colon, rectum, ovary, and endometrium with a protective effect persisting for many years after the women stopped taking the pill. There is a marginal breast/cervical cancer increased risk but this is relatively temporary and lasts for only the duration of use and five years after stopping. In addition, in a country like Nigeria where maternal mortality is high, risks are also moderated compared to this risk.