

No Increased Risk of Breast Cancer Found in DES Daughters

Women who have been exposed to the synthetic hormone DES *in utero*, do not face an increased risk of breast cancer later in life. That is the conclusion of a long-term study conducted by the Netherlands Cancer Institute. The risk of cancer of the vagina remains elevated, however, even after age 50.

Between 1947 and 1976, some women in the Netherlands were prescribed diethylstilbestrol (DES) during pregnancy to prevent miscarriages. It later became clear that *in utero* exposure to the drug had harmful effects on both the mothers as well as their offspring. Among DES daughters, abnormalities of the reproductive organs are more common, and they face an increased risk of a rare form of vaginal or cervical cancer at a young age.

There have been concerns that these DES daughters might also face a higher risk of breast cancer as they age. These concerns stem from research linking high estrogen exposure in the womb to a higher risk of breast cancer. Further findings show that women who took DES during pregnancy had a slightly increased risk of developing breast cancer themselves.

Since these earlier studies had been conducted when most DES daughters were still relatively young, we didn't know whether the risk of cancer would increase with age. Researcher Naomi Boekel: "It's important to examine whether these elevated risk would emerge later in life."

In collaboration with the Dutch DES Center, the researchers followed over 12,000 DES daughters. They compared their health outcomes to those of their unexposed sisters, and data from the national population. Boekel: "We assessed cancer risk through questionnaires and data from the Netherlands Cancer Registry and PALGA, the national pathology database, taking into account age, year of diagnosis, and sex."

The findings show that DES daughters are not at increased risk of breast cancer, ovarian cancer, melanoma, or other common types of cancer. However, vaginal cancer continues to occur more frequently in DES daughters, including women over 50 years. The two most common cancer types were *clear cell adenocarcinoma* and *squamous cell carcinoma*. Despite this increased risk, vaginal cancer remains rare. Boekel notes: "Among 1,000 DES daughters aged 50, we expect no more than one woman to be diagnosed with vaginal cancer before age 65."

Epidemiologist Floor van Leeuwen from the Netherlands Cancer Institute adds: "This news will be reassuring for many women. We found no evidence of increased cancer risk, apart from the known risk of vaginal cancer. It's important to remain aware of that risk, but overall, this study offers clarity and that could contribute to peace of mind and a better quality of life."

DES daughters in the Netherlands are currently advised to undergo cervical and vaginal screenings every two years until the age of 60. The researchers suggest revisiting this guideline to consider extending the age limit. This recommendation is currently under review by the Dutch Society of Obstetrics and Gynecology.

For questions about DES exposure, women can contact the [Dutch DES Center](#).

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