## No Overall Cancer Risk Shown for DES Grandchildren

## Specifically: Ovarian Cancer May Be Of Concern

"Offspring of Women Exposed in Utero to Diethylstilbestrol (DES): A Preliminary Report of Benign and Malignant Pathology in the Third Generation," Linda Titus-Ernstoff, et al, *Epidemiology*, Vol. 19, No. 2, March 2008.

## Reviewed by Fran Howell

This research is encouraging in that it indicates no increased cancer risk for the children of DES Daughters, save for one type of cancer, ovarian cancer, with the possibly heightened risk for it needing further study.

Done as part of the National Cancer Institute (NCI) DES Follow-up Study, Principal Investigator

Linda Titus-Ernstoff, PhD, a Professor at Dartmouth Medical School, and her team evaluated cancers occurring in DES Grandchildren. The data came from two sources. First, DES Daughters and a control group of unexposed women participating in the DES Follow-up Study were asked to report cancers in their sons

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DES Grandchildren from page 1 and daughters. Second, 793 grand-daughters (463 exposed and 330 unexposed) were asked to self-report their own cancer diagnoses as part of this Third Generation Study. Cancers reported by the second group were verified with medical records.

The researchers were particularly interested in the incidence of cancers in the exposed group because laboratory studies show that DES grandchildren mice exhibit an elevated incidence of reproductive tumors.

However, in this first evaluation of human cancers, Titus-Ernstoff says, "Our data do not support an overall increase of cancer risk in the sons or daughters of women exposed prenatally to DES." But she goes on to add, "The number of ovarian cancer cases was greater than expected."

While no ovarian cancers were found in the unexposed group, a total of three ovarian cancers were found in the DES Granddaughters. Two were self-reported by Third Generation Study participants and were confirmed by medical records. One of these was diagnosed at age 22, while the other ovarian tumor, which had metastasized to the lymph nodes, was diagnosed in a 20-year old. A third ovarian cancer among DES Granddaughters (juvenile granulosa) was diagnosed at age 7. Because of her young age she was not part of the Third Generation Study, so her diagnosis was not verified using medical records. According to Titus-Ernstoff, three ovarian cancers in this size group were more than what was expected based on general population statistics. This finding is of concern because an increase of reproductive tumors is seen in DES-exposed grand-daughter mice in laboratory studies, and mouse studies have been good predictors of what might happen in human populations.

As for other results, there was no increase in testicular cancers for DES Grandsons nor were there any vaginal/cervical clear cell adenocarcinomas (CCA) among the DES Granddaughters. Also not found were any breast cancer cases, however the researchers suggest that participants are too young for a meaningful assessment of that cancer right now.

Because this was a small study, and participants are still young in their reproductive lives, Titus-Ernstoff warns that it is simply too early to say with any certainty that DES Grandchildren have little to fear in the way of increased cancer risks resulting from their exposure. While the results are encouraging, she says the incidence of ovarian cancers, coupled with what is known about tumors in exposed laboratory mice, supports further study and health monitoring of DES Grandchildren as they age.



## OVARIAN CANCER SYMPTOMS

It is not easy detecting ovarian cancer and females of any age can be diagnosed with it. But for the most part, it is a disease of women past menopause. According to the American College of Obstetricians and Gynecologists (ACOG), ovarian cancer is not commonly found in women younger than 40.

As a result, doctors may not suspect this cancer in younger patients. So those of us in the DES community might want to pay attention to symptoms in DES Granddaughters. However, as researcher LindaTitus-Ernstoff stresses, the number of cases identified in her study was very small and it is too early to know yet whether this group is actually at increased risk.

The web site, www.mayoclinic.com, explains that ovarian cancer symptoms are vague and mimic those of other common conditions, especially digestive and bladder disorders. "With most digestive disorders, symptoms tend to come and go, or they occur in certain situations or after eating certain foods. With ovarian cancer, there's typically little fluctuation — symptoms are constant and gradually worsen."

- persistent abdominal pressure, fullness, swelling
- urinary urgency
- pelvic discomfort or pain
- persistent lack of energy
- increased abdominal girth
- · lower back pain

Because these symptoms are generic, in most cases they will not result in an ovarian cancer diagnosis. Still, if they persist and worsen, they should be brought to the attention of a doctor.