DES Action VOICE

A Focus On Diethylstilbestrol

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DES May Increase the Risk for Depression in Those Exposed Before Birth

"Diethylstilbestrol Exposure in Utero and Depression in Women," O'Reilly EJ, et al, *American Journal of Epidemiology*, Vol. 171, No. 8, March 2010.

Reviewed by Fran Howell

One of the questions most frequently asked of DES Action USA is whether DES exposure increases the risk for depression and anxiety in DES Daughters and Sons. We now have results from a large study (76,240 individuals) that finds it very well may.

Using information gathered from participants in the Nurses' Health Study II, Harvard School of Public Health researcher Eilis O'Reilly, Sc.D., and the research team compared responses from those who indicated they were DES-exposed and those who said they were not. The conclusion is that "neurophysiologic effects of in utero exposure to DES could lead to an increased risk of depression in adult life." However, it is also possible that knowledge of DES exposure could be responsible for the higher rates of depression.

The Nurses' Health Study II has sent health questionnaires to participants every two years since 1989. Starting in 1993, the survey included questions about DES exposure and the use of antidepressant drugs. Participants were asked if they had used such drugs at any point in their lives and if they "ever had two weeks or longer when nearly every day they felt sad, blue or depressed for most of the day."

According to O'Reilly, from the 1993 questionnaire "a past history of depression was reported by 13.8% of the women exposed to DES in utero and by 10.8% of those not exposed." The 2001 results show similar numbers, with depression reported by 19.7% of DES Daughters compared with 15.9% of those not exposed. Adjustments in the calculations were made for depression risk factors such as smoking, alcohol use, income, physical activity and infertility — which were reported at a higher rate by DES Daughters.

O'Reilly acknowledged that the study depends on self-reported use of antidepressants and depression symptoms rather than a physician's diagnosis. Also, DES exposure was self-reported without confirmed medical records. But a subset of participant's mothers was sent a separate survey. Their responses associated closely with their daughters, and therefore added confirmation to the self-reported DES exposure. O'Reilly says strengths of the study are that it is both large and has accumulated information over many years.