## BIBLIOGRAPHY

## Articles

 Smith, O.W.: 'Diethylstilbestrol in the prevention and treatment of complications of pregnancy", <u>Am J. Obstet Gynecol</u> 56:821, 1948.
Dr. George and Dr. Olive Smith were the first research team to experiment with

the use of DES during pregnancy to prevent miscarriage. Using research methods that are unreliable by current standards, the Smiths reported success in women carrying pregnancy to term who had previously miscarried.

2. Dieckmann, W.J. et al: 'Does the administration of diethylstilbestrol during pregnancy have the therapeutic value?' Am J. Obstet Gynecol 66:1062, 1953.

The first well-designed study examining the value of DES as an anti-miscarriage drug. Dr. Dieckmann's findings, later confirmed in other studies, were that DES in fact had no therapeutic value in the treatment of miscarriage. Nevertheless, physicians were reluctant to stop using DES during pregnancy because of their belief, and the drug companies' insistence, that DES was useful for this purpose.

3. Herbst, A.L. et al: "Adenocarcinoma of the vagina: association of maternal stilbestrol therapy and tumor appearance in young women", <u>NE J. of Med</u> 284:878, April 22, 1971.

The original medical report correlating the appearance of cancer in seven young women aged 15 to 22 with maternal ingestion of DES during pregnancy.

4. Bibbo, M. et al: "Follow-up study of male and female offspring of diethylstilbestrol treated mothers", J. Reprod Med 15:29, 1975.

An early medical report describing DES-related effects in sons and daughters of DES mothers.

 Herbst, A.L. et al: "Age-incidence and the risk of diethylstilbestrol-related clear cell adenocarcinoma of the vagina and cervix", <u>Am J. Obstet Gynecol</u> 128(1): 43, 1977a.

A report on 127 cases of clear cell cancer reported from 1971 to 1976, of women exposed prenatally to DES or other non-steroidal synthetic estrogens. Peak incidence at age 19, with the cumulative risk of this cancer estimated, through age 24, at 0.14 to 1.4 per thousand DES exposed daughters.

6. Kaufman, R.H. et al: "Upper genital tract changes associated with exposure in utero to diethylstilbestrol", Am J. Obstet Gynecol 128:51. May, 1977.

The first medical report linking deformities of the uterus to DES exposure. In a small sample, 40% of those exposed to DES were found to have anatomical changes, most commonly a constricted uterus now known as a "T-shaped" uterus. This study has since been confirmed by other x-ray studies of DES daughters' upper reproductive tract changes.

7. Bibbo, M. et al: "Twenty-five year follow-up study of women exposed to diethylstilbestrol during pregnancy", NE J. of Med 298(14):763, April 6, 1978.

A report on 680 mothers given DES during pregnancy at the University of Chicago in 1952-53 as part of the Dieckmann study (see #2 above). Twenty-five years later, those women who took DES reported more cases of breast cancer than those in the control group of the original study. Though not statistically significant, the excess breast cancer was considered of "serious concern" to the Federal DES Task Force in October, 1978.

8. Department of Health, Education and Welfare: 'DES Task Force Summary Report', DHEW Publication No. (NIH) 80-1688. Sept. 21, 1978.

Summary report of the Federal government's eight-month examination of all facets of the DES issue. Summarizes medical information known to date, and includes recommendations for further research and for physician action to notify those for whom they prescribed DES.

9. Anderson, B. et al: 'Development of DES-associated clear cell carcinoma: the importance of regular screening', Ob Gyn 33(3):293, March, 1979.

This article describes cancer appearing in a DES daughter within a year after a thorough examination showing no signs of cancer. Emphasizes the need for regular follow-up examination of DES daughters at least every six months, to look for this fast-growing cancer.

10. Gill, W.B. et al: "Association of diethylstilbestrol exposure in utero with cryptorchidism, testicular hypoplasia and semen abnormalities", Fert and Ster 31:2, Feb. 1979.

A study of sons exposed to DES before birth. Links DES exposure with genital abnormalities including undescended testicle at birth, underdeveloped testicles, and sperm and semen abnormalities.

11. Herbst, A.L. et al: "A comparison of pregnancy experience in DES-exposed and DES-unexposed daughters", J. Reprod Med 24:62, 1980.

1980 marked the beginning of reports that DES daughters were having problems with pregnancies of their own. This study reports on more than 300 daughters, half of whom had significant problems either becoming pregnant or carrying a pregnancy to term. (See #15 below.)

12. Schmidt, G. and Fowler, W.C.: "Cervical stenosis following minor gynecologic procedures on DES-exposed women", Obstet Gynecol 56(3):333-335, 1980.

In this study, 74% of 42 DES daughters who had undergone cryosurgery developed cervical stenosis (too narrow an opening to the cervix) as a complication of the surgery. This is in contrast to 1% of women who are not DES-exposed experiencing this complication.

13. Robboy, S.J. et al: 'Dysplasia and cytologic findings in 4,589 young women enrolled in Diethylstilbestrol-Adenosis (DESAD) Project", <u>Am J. Obstet Gynecol</u> 140(5):579, Jul 1, 1981.

A summary report of findings from examination of women enrolled in the federally funded cooperative study of DES daughters. Adenosis was found to decrease with increasing age of the daughters, suggesting that the adenosis is covered over with age by squamous metaplasia. Dysplasia was not reported more frequently in DES daughters. Four cases of clear cell carcinoma were found overall.

14. Veridiano, N.P. et al: 'Delayed onset of clear cell adenocarcinoma of the vagina in DES-exposed progency'', Ob Gyn 57(3):395, March, 1981.

Similar to Anderson's experience (#9), Dr. Veridiano discovered clear cell cancer in a 21-year-old woman who had been followed regularly with careful examinations.

15. Herbst, A.L.: "Reproductive and gynecologic surgical experience in diethylstilbestrol-exposed daughters", Am J. Obstet Gynecol 141:1019, Dec. 15, 1981.

Dr. Herbst updates his research on pregnancy problems of DES-exposed daughters. DES daughters are found to have several types of problems not reported by the control group, including menstrual irregularities. 15% had difficulty becoming pregnancy, compared with 6% of the controls. Almost 6% had the serious condition of tubal pregnancy, compared with .3% of the controls. More DES daughters were likely to suffer miscarriage, stillbirth, or premature delivery. In all, about half of DES daughters had difficulty with pregnancy compared to about 20% of those not exposed. Nevertheless, 81% of the DES daughters did eventually carry a pregnancy to live delivery.

16. Kaufman, R.H.: 'Development of clear cell adenocarcinoma in DES-exposed offspring under observation', Ob Gyn 59(6)(Supp): June, 1982.

A case report of two DES daughters who developed clear cell cancer while under observation in the DESAD study. In both cases, the cancer was not picked up by a Pap smear, but by careful palpation during the exam.

 Stillman, R.J.: "In utero exposure to diethylstilbestrol: adverse effects on the reproductive tract and reproductive performance in male and female offspring", Am J. Obstet Gynecol 142(7):906–921. April 1, 1982.

A review article summarizing the known medical effects of DES exposure. Includes a brief history of DES development and prescription in the United States, and a discussion of all known effects on DES exposed daughters and sons. With comprehensive bibliography.

18. Conley, G.R. et al: "Seminoma and epididymal cysts in a young man with known diethylstilbestrol exposure in utero", JAMA 249(10):1325-1326, 1983.

A case report of a DES son with testicular cancer.

19. Haney, A.F. and Hammond, M.G.: "Infertility in women exposed to diethylstilbestrol in utero", J. Reprod Med 28(12):851-856, 1983.

This article examines the causes for infertility in 33 DES exposed women with problems conceiving. The range of problems causing infertility was similar to those in non-DES exposed women, with a few differences. Tubal pregnancies occurred in DES daughters with no history of infection of the tubes. Also some DES daughters were infertile as a result of complications of surgery on the cervix.

20. Emery, J.: "Review of the literature on reproductive outcomes in women exposed in utero to diethylstilbestrol", printed by DES Action National, 1638-B Haight Street, San Francisco, CA 94117, USA, February, 1984.

Summarizes the results of the major medical articles on DES daughters and structural changes, menstruation, infertility, ectopic pregnancy, miscarriage, premature delivery, and total pregnancy outcome. Books

- Bichler, J.: <u>DES Daughter: The Joyce Bichler Story</u>. Avon Books, 1981. A personal account from a DES daughter who had vaginal cancer and was the first DES daughter to win a lawsuit against the drug's manufacturers.
- Herbst, A.L. and Bern, H., eds.: Developmental Effects of Diethylstilbestrol in Pregnancy. Thieme-Stratton, 1981.
  A comprehensive reference by 21 authors covering epidemiology, clinical manage-

A comprehensive reference by 21 authors covering epidemiology, clinical management, and animal research studies.

3. Orenberg, C.L.: DES: The Complete Story. St. Martin's Press, 1981.

A complete, informative book on the history and health effects of DES, written by a DES mother.

This bibliography was taken from the information packet on DES, "Ask Your Mother", put out by DES Action, Hillside Medical Center, New Hyde Park, N.Y., with additions by the Vancouver Women's Health Collective. This is not a comprehensive list of all writings on DES; these are the major articles and books.