What DES Sons and their doctors should know about lifelong risks of prenatal DES exposure. This can be a starting off point for a discussion on DES Son health concerns.

DES (diethylstilbestrol) is a synthetic estrogen given as an anti-miscarriage drug to millions of pregnant women, primarily from 1938-1971, but not limited to those years. Male offspring from those pregnancies are known as DES Sons.

### Increased Risk for Structural Changes

“Urogenital Abnormalities in Men Exposed to Diethylstilbestrol in Utero: A Cohort Study,” Palmer et al. Environmental Health 2009; 8:37 (http://www.ehjournal.net/content/8/1/37)

- **Epididymal Cysts**—benign fluid filled sacs that can be painful and if so these growths may be deemed appropriate for surgical removal

- **Cryptorchidism**—undescended testicles can result in an increased risk for testicular cancer—so any man with the condition, DES-exposed or not, should be vigilant about practicing testicular self-exam

- **Microphallus** (micropenis)—has no impact on fertility, although it can have psychosocial significance

- **Testicular Inflammation/Infection**—researchers speculate that some DES Sons were born with a small structural abnormality, such as a minor obstruction could explain their higher inflammation/infection risk

### Infertility

“Reproductive Outcomes in Men with Prenatal Exposure to Diethylstilbestrol,” Perez et al. Fertility and Sterility; Vol. 84, No. 6, Dec. 2005

- DES Sons are slightly more likely than unexposed men to experience infertility but most DES Sons appear able to father children

- No evidence found that infertility was greater in DES Sons with urogenital structural anomalies

- Needing further study is whether infertility issues for DES Sons increase with age

### Other Medical Conditions

“Medical Conditions Among Adult Offspring Prenatally Exposed to Diethylstilbestrol,” Troisi et al. Epidemiology; Vol. 24, No. 3, May 2013

- DES Sons join DES Daughters in this study as being at increased risk for:
  - Cardiovascular disease (stroke, coronary artery disease and heart attack)
  - Diabetes
  - Osteoporosis
  - Fractures

### Gender Issues

Endocrine disruptors are being examined in gender identity studies, but DES research has not found a conclusive DES link. One confounding thought now under investigation regards the layering of endocrine disruptive exposures, both prenatally and perinatally. Researchers want to understand if there is an association and then whether DES exposure might itself be the cause, or perhaps combined with other exposures be a trigger for variations.