

## Science News

*from research organizations*

# Sperm Damage From Toxins Can Affect Children, Grandchildren

*Date:* February 21, 2008

*Source:* Boston University

*Summary:* The consequence of maternal exposure to a variety of potentially toxic agents during pregnancy remains the prime focus of concern in scientific endeavors and in society at large. However, there is now mounting evidence that paternal exposure can also adversely affect fetal and postnatal development of offspring and that this imprint can be expressed in subsequent generations. The reported impact on offspring outcome includes low birth weight; increase in childhood cancers; developmental, behavioral, endocrine abnormalities and cross-generational effects.

*Share:*      

### FULL STORY

The consequence of maternal exposure to a variety of potentially toxic agents during pregnancy remains the prime focus of concern in scientific endeavors and in society at large.

However, there is now mounting evidence that paternal exposure can also adversely affect fetal and postnatal development of offspring and that this imprint can be expressed in subsequent generations.

Scientists are addressing the evidence for male-mediated influences on reproductive success and postnatal development and its implications at a symposium.\*

"This symposium will present evidence from both animal and epidemiological studies which demonstrates that paternal exposure to a variety of potential toxins can adversely impact fetal development, produce a wide spectrum of deficits in offspring and be expressed in subsequent generations," said Gladys Friedler, PhD, an emerita associate professor of psychiatry at Boston University School of Medicine and organizer of the session.

"The goal of this symposium is to heighten awareness of the significant effect of the male parent in reproductive success and postnatal development as well as to stimulate research on male-mediated effects," added Friedler.

Friedler, who is considered a pioneer in the field, will introduce the symposium with a review of studies which indicate that male exposure to a variety of potential toxins including both recreational and therapeutic drugs, as well as workplace and other exposures can adversely alter reproductive outcome.

The reported impact on offspring outcome includes low birth weight; increase in childhood cancers; developmental, behavioral, endocrine abnormalities and cross-generational effects.

\*The multidisciplinary symposium, sponsored by the American Association for the Advancement of Science is entitled The Father and Fetus Revisited. Also participating in this symposium are Matthew D. Anway from the University of Idaho, Moscow, who will present his studies: "Epigenetic Transgenerational Reproductive Disease." Political scientist Cynthia R. Daniels, from Rutgers University, New Brunswick, New Jersey, will discuss "Cultural Politics and the Father-Fetal Connection."

### Story Source:

Materials provided by **Boston University**. *Note: Content may be edited for style and length.*

### Cite This Page:

[MLA](#)[APA](#)[Chicago](#)

Boston University. "Sperm Damage From Toxins Can Affect Children, Grandchildren." ScienceDaily. ScienceDaily, 21 February 2008. <[www.sciencedaily.com/releases/2008/02/080217133251.htm](http://www.sciencedaily.com/releases/2008/02/080217133251.htm)>.

### RELATED STORIES



#### Study Details Zika Virus Disrupting Fetal Brain Development During Pregnancy

Sep. 12, 2016 — For the first time, abnormal brain development following a Zika infection during pregnancy has been documented experimentally in the offspring of a non-human primate. The researchers' ... [read more »](#)

#### Can Drinking Alcohol Harm the Child Before the Mother Knows She Is Pregnant?

May 13, 2015 — Alcohol drunk by a mouse in early pregnancy changes the way genes function in the brains of the offspring. The early exposure was also later apparent in the brain structure of the adult offspring. ... [read more »](#)

#### Mother's Diet Influences Weight-Control Neurocircuits in Offspring

Mar. 30, 2015 — Maternal diet during pregnancy and lactation may prime offspring for weight gain and obesity later in life, according to researchers who looked at rats whose mothers consumed a high-fat diet and ... [read more »](#)



#### Malnutrition During Pregnancy May Affect the Health of Future Generations

May 1, 2014 — New research reveals how environmental factors in the womb can predispose not only the mother's own offspring but also the grand-offspring to metabolic disorders like liver disease. Researchers ... [read more »](#)

### FROM AROUND THE WEB

*Below are relevant articles that may interest you. ScienceDaily shares links with scholarly publications in the TrendMD network and earns revenue from third-party advertisers, where indicated.*

## Postnatal paternal depression tied to depression in teen offspring

Healio

## Family factors mediated association between paternal depression, child behaviors

Healio

## Paternal cigarette, supplement use impacts sperm

Healio

## Cigarette, supplement use impacts sperm quality

Healio

## ADHD more common in children of fathers on SSRIs

Healio

## War exposure may harm mental health across generations

Healio

## Mouse Study Offers Insights into Epigenetic Inheritance across Generations

GenomeWeb

## Exposure to fracking chemicals may reduce fertility in mice

Healio

---

Powered by **TREND MD**

## Free Subscriptions

---

Get the latest science news with ScienceDaily's free email newsletters, updated daily and weekly. Or view hourly updated newsfeeds in your RSS reader:

 Email Newsletters

 RSS Feeds

## Follow Us

---

Keep up to date with the latest news from ScienceDaily via social networks:

 Facebook

 Twitter

 Google+

 LinkedIn

## Have Feedback?

---

Tell us what you think of ScienceDaily -- we welcome both positive and negative comments. Have any problems using the site? Questions?

 [Leave Feedback](#)

 [Contact Us](#)

[About This Site](#) | [Staff](#) | [Reviews](#) | [Contribute](#) | [Advertise](#) | [Privacy Policy](#) | [Editorial Policy](#) | [Terms of Use](#)

Copyright 2019 ScienceDaily or by other parties, where indicated. All rights controlled by their respective owners. Content on this website is for information only. It is not intended to provide medical or other professional advice.

Views expressed here do not necessarily reflect those of ScienceDaily, its staff, its contributors, or its partners.

Financial support for ScienceDaily comes from advertisements and referral programs, where indicated.