

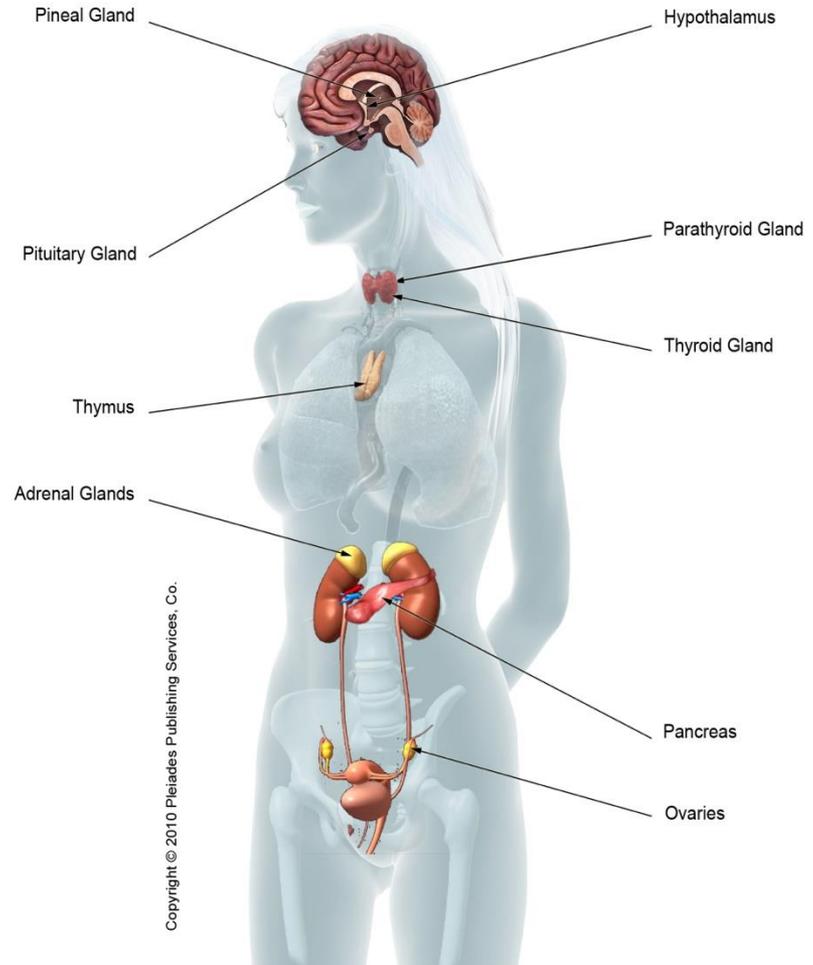
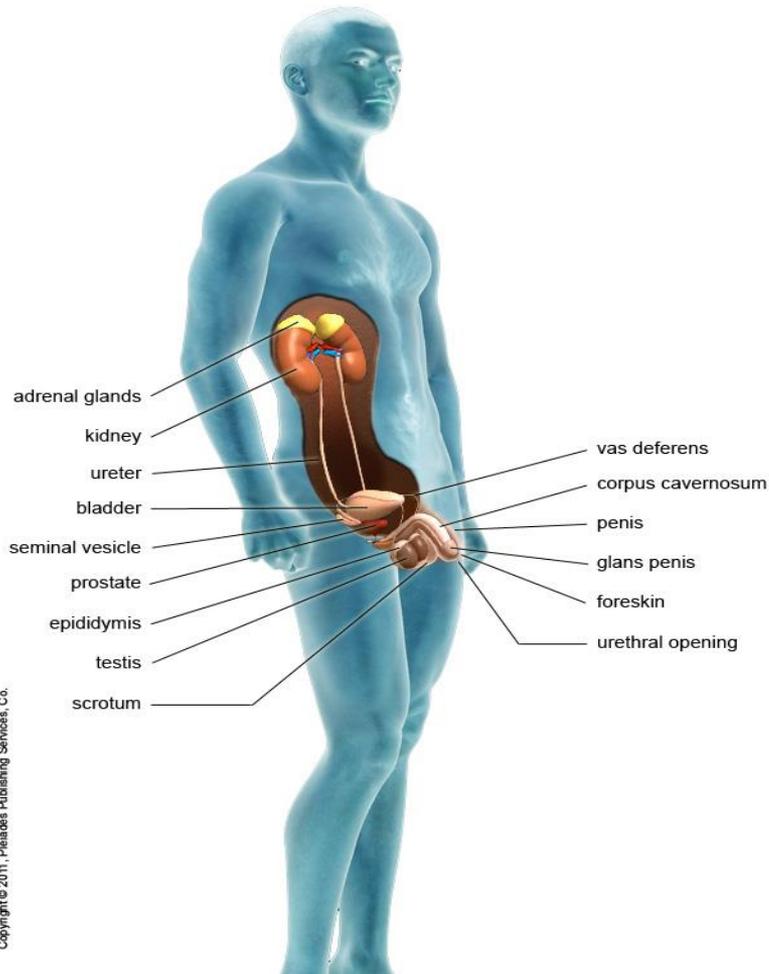


# THE ENDOCRINE SYSTEM & ASD AN ENVIRONMENTAL EXPERIMENT GONE AWRY?

AutismOne  
May 26, 2016  
Chicago, Ill

Leslie Carol Botha, WHE

# ENDOCRINE SYSTEM



# RESEARCHERS AT HARVARD REVEAL 10 TOXINS CAUSING ADHD, AUTISM



**HARVARD**  
**SCHOOL OF PUBLIC HEALTH**  
Powerful ideas for a healthier world

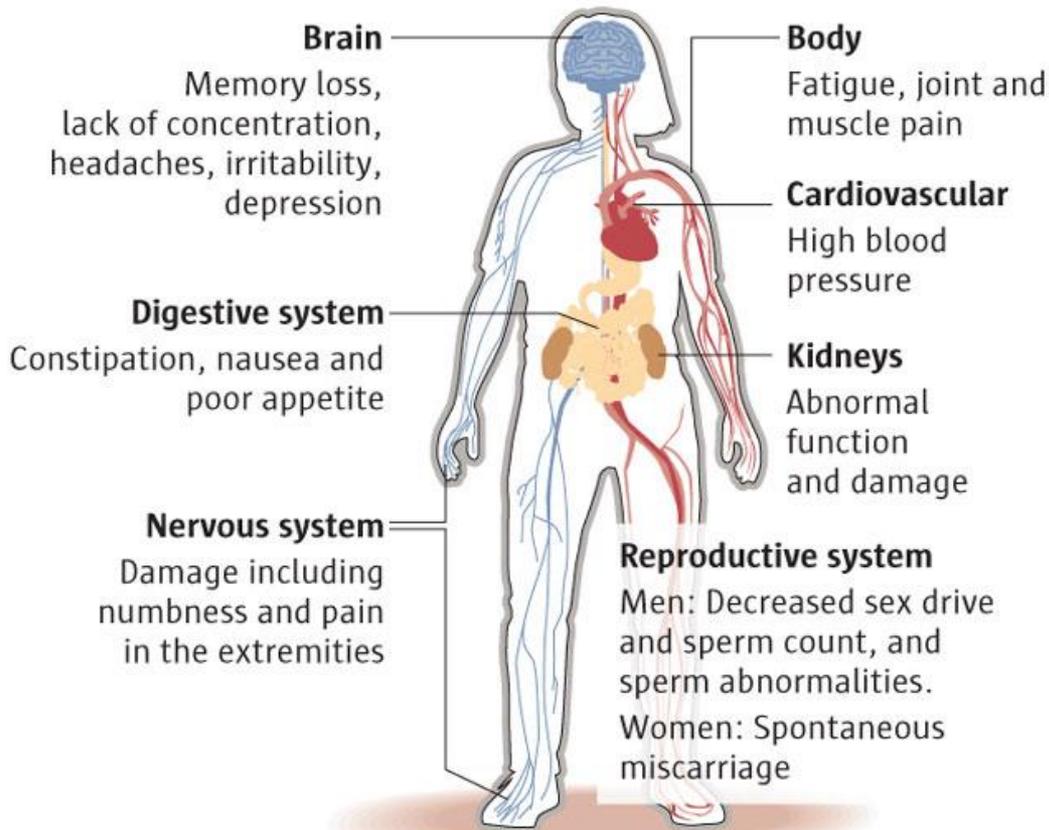
At the rate that neurodevelopmental disorders have been increasing in diagnosis, a bystander might assume they were contagious. Dr. Phillippe Grandjean, researcher at Harvard School of Public Health, and Dr. Landrigan, of New York's Mount Sinai, report that “disorders of neurobehavioural development affect 10–15% of all births.”

“Disorders that are labeled ‘ADHD’, ‘Autism’, ‘Oppositional Defiant Disorder’, ‘Conduct Disorder’, ‘Dyslexia’ and many others are being proven by researchers all over the world to actually stem from the environment and toxins that interrupt the healthy development of children.”

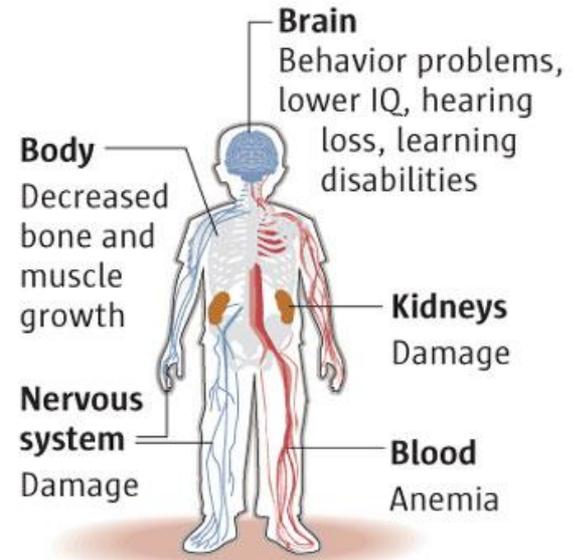
Number 1: Lead– “This is one of the most extensively researched compounds in terms of neurodevelopment, and has been consistently linked to serious deficits, including low IQ. Its effects seem to be permanent, leading to the conclusion that there is no safe level of exposure.”

# LEAD EXPOSURE

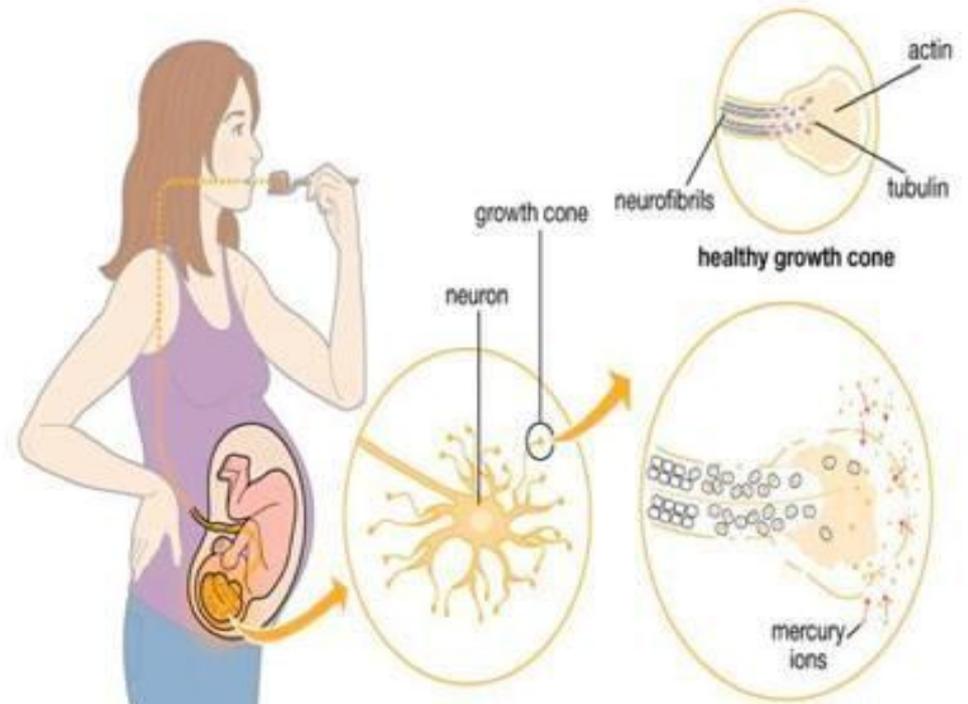
## ADULTS



## CHILDREN



Number 2: Methylmercury—  
“Affecting the neurological development of the fetus, exposure often comes from maternal intake of fish containing high levels of mercury, according to the World Health Organization and the EPA.



“Watch out for another name for mercury— ‘thimerosal’—  
This form of mercury is used in many vaccines.”

Number 3: Polychlorinated biphenyls (PCB) – “This family of chemicals has routinely been associated with reduced cognitive function in infancy and childhood. It is often present in foods, particularly fish, and can be passed along in breast milk.”

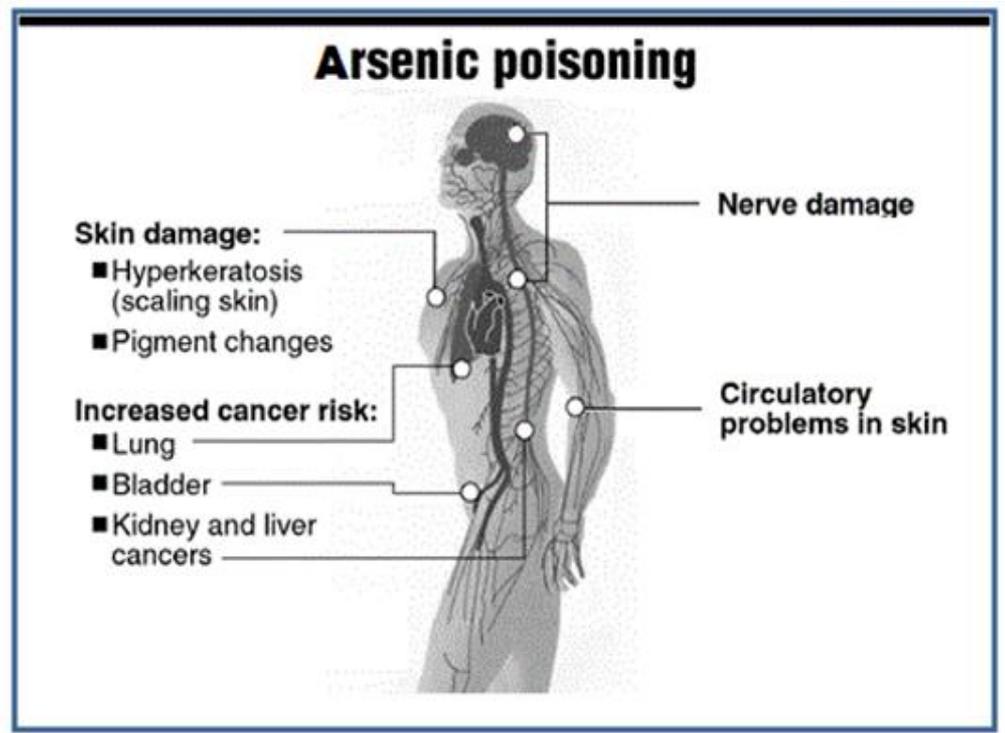
### PCB's

Oily liquid, white crystalline solid, or hard resin. Severely irritating. Suspect cancer hazard. Chronic: chloracne, GI disturbances, neurological symptoms, liver enlargement, menstrual changes, bronchitis. Possible reproductive and teratogenic effects.



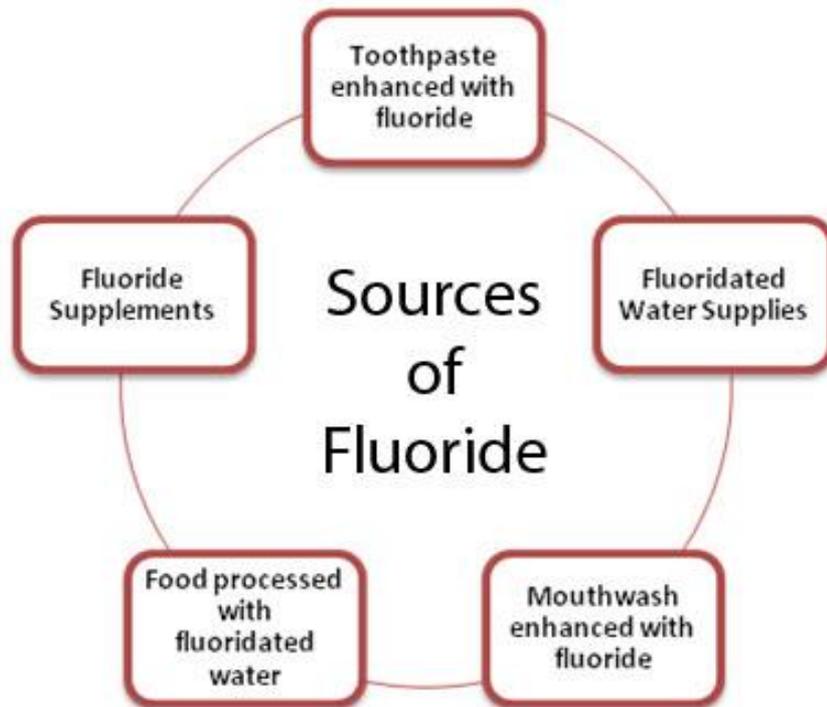
CAS No. 1336-36-3

Number 4: Arsenic – “When absorbed through drinking water, this chemical has been linked to reduced cognitive function in schoolchildren.”



Number 5: Toluene – “Used as a solvent, maternal exposure has been linked to brain development problems and attention deficit in the child, according to the EPA and OSHA.”

Number 7: Fluoride – “Higher levels of this chemical has been connected with a 7-point decrease in IQ in children.”



***“In the scale of toxicity, fluorides fall between arsenic and lead”***

Number 8: “Chlorpyrifos and DDT (pesticides)– “Linked to structural abnormalities of the brain and neurodevelopmental problems that persist up to age seven.

“These pesticides are banned in many parts of the world (U.S. included), but still used in many lower-income countries. They have recently been linked to Alzheimer’s.”

Number 9: Tetrachloroethylene– “These solvents have been linked to hyperactivity and aggressive behavior, and increased risk of psychiatric diagnosis. Mothers in certain professional roles, like nurse, chemist, cleaner, hairdresser, and beautician had higher levels of exposure.”

Number 10: The polybrominated diphenyl ethers (PBDEs) –“These flame retardants are banned now, but believed to be neurotoxins. Prenatal exposure has been linked to neurodevelopmental disorders in the child.”

# SICKNESS SYNDROME

Sickness has now become a syndrome. It is a collection of symptoms without a single identifiable cause, and without safe or effective treatment options.



## **Kabuki Syndrome**

1 in 32,000 newborns

Caused by mutations in the *KMT2D* gene (also known as *MLL2*) or the *KDM6A* gene.

# THE LINK BETWEEN ORAL CONTRACEPTIVE USE AND PREVALENCE IN AUTISM SPECTRUM DISORDER

As the prevalence of ASD has risen in the last sixty years, so has the prevalence of the usage of the oral contraceptives and other modern hormonal delivery methods such as the injectables, patches, vaginal rings, and implants. Although dosage has changed from the earliest version of the oral contraceptive, the two compounds used, progesterone and estrogen, are still the same.

- 11 million women in the United States use oral contraceptives as their principle method of contraception.
- 82% of sexually active women in the United States have used oral contraceptives at some point during their reproductive years.
- Growth in use of progesterone/estrogen-based contraceptives in the United State has reached near-ubiquitous levels among women in the child-bearing age range.

# PROGEROID SYNDROMES

PS - a group of rare genetic disorders that mimic physiological aging.

All disorders within this group are thought to be monogenic, meaning they arise from mutations of a single gene.



“DES: NO PREGNANCY NO  
MOTHERHOOD, A LIFE TIME POISONOUS  
BALL AND CHAIN TO CARRY”



From the DES Daughters Blog <http://bit.ly/1SVdf0Z>

# DES

- **Clear cell adenocarcinoma (CCA)** - A rare type of Vaginal and Cervical cancer. Approximately one in 1,000 (0.1 %) DES Daughters will be diagnosed with CCA. The risk is virtually non-existent among premenopausal women not exposed to DES.
- **Reproductive tract structural differences** - Including T-shaped uterus, hooded cervix, cervical cockscomb, and pseudopolyp.
- **Pregnancy complications** - Ectopic (tubal) pregnancy and pre-term (early) delivery.
- **Infertility** - Difficulty becoming pregnant.

A major lesson from these tragic events was that when pregnant women absorbed certain forms of estrogen, they exposed their fetus to small amounts of the hormone and it would have grave and irreversible health consequences for their baby. It also showed that these consequences would only show up much later in the child's life.

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*“Really?”*

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in ALL pregnancies . . .*

96 per cent live delivery with **desPLEX**  
in one series of 1200 patients\*—  
— bigger and stronger babies, too.††

No gastric or other side effects with **desPLEX**  
— in either high or low dosage‡‡

Source: J Midwifery Womens Health © 2003 Elsevier Science, Inc.

# TREACHER-COLLINS SYNDROME

Treacher-Collins syndrome due to the mutation of TCOF1 gene.

Syndrome has an autosomal-dominant pattern and hence can be inherited by the children from their parents.



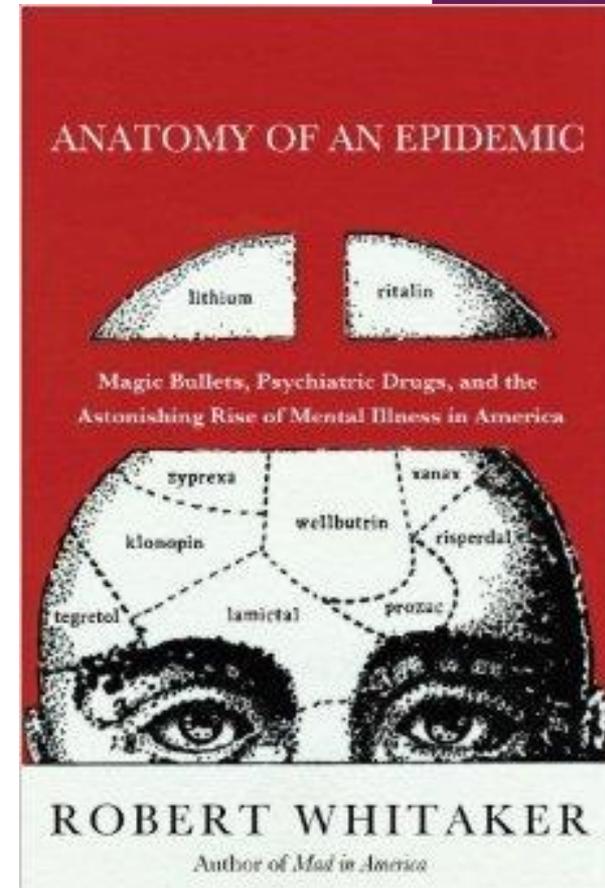
# PREVALENCE OF PROSTATE CANCER:

- Prostate cancer is the second most common cancer in men, accounting for 15% of the cancers diagnosed in men, with almost 70% of the cases (759,000 per year) occurring in more developed regions (which are also the main users of the Pill).
- The alarming rate of decreased of sperm count, is a major cause of infertility.
- A dramatic, accelerating drop in sperm count 50% since 1950 and 25% just in the past 20 years.

# ANATOMY OF AN EPIDEMIC

In *Anatomy of an Epidemic*, Robert Whitaker asks why the number of adults and children disabled by mental illness skyrocketed over the past fifty years. In 1955, there were 355,000 adults in state and county mental hospitals with a psychiatric diagnosis.

During the next three decades, (the era of the first generation psychiatric drugs) the number of disabled mentally ill rose to 1.25 million.

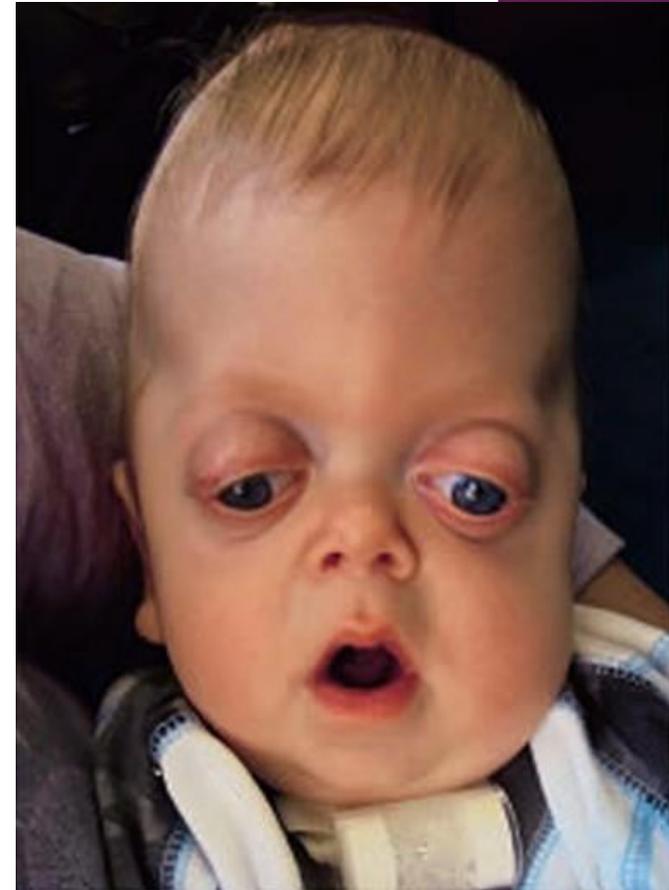


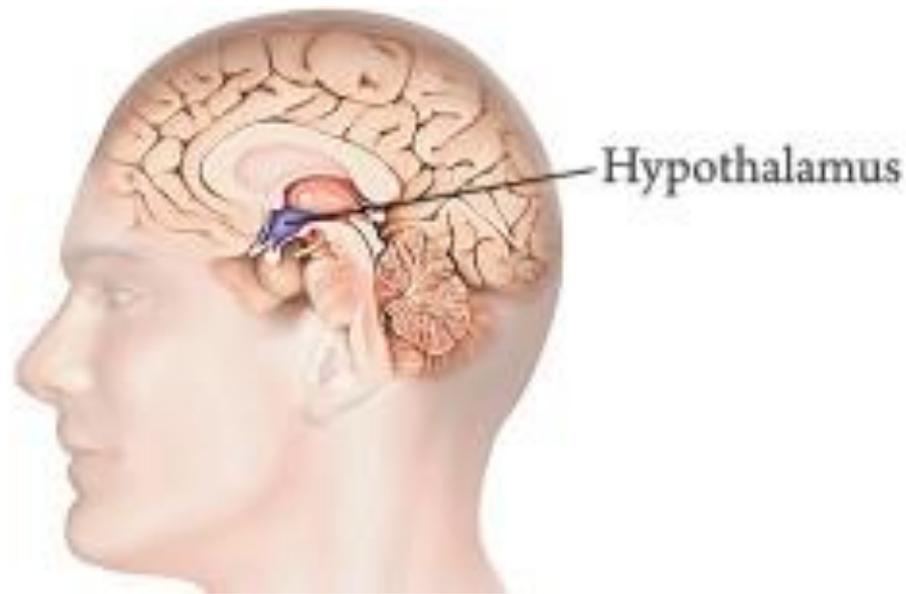
# MERCURY-CAUSED ENDOCRINE CONDITIONS CAUSE WIDESPREAD ADVERSE HEALTH EFFECTS, COGNITIVE EFFECTS, AND FERTILITY EFFECTS

Mercury has been found to be an endocrine system disrupting chemical in animals and people, disrupting function of the pituitary gland, thyroid gland, parathyroid gland, thymus gland, adrenal gland, pineal gland, and enzyme production processes, and affecting many hormonal and enzymatic functions at very low levels of exposure.

# PFEIFFER SYNDROME

- Genetic disorder that affects the shapes of the face and head of patients and is characterized by the premature fusion of certain bones of the skull, feet and hands.
- Around the world it affects approximately one in one hundred thousand births.
- Cause of is genetic associated with the Fibroblast growth factor receptors one and two.





Mercury has been found to commonly accumulate in the hypothalamus, affecting hormone secretions of the pituitary or thyroid gland and many bodily functions.

The hypothalamus is part of the endocrine and nervous system. It has no protective blood-brain barrier, making it easy for toxins to enter this area and cause damage.

# EARLY-LIFE EXPOSURE TO EDC'S AND LATER-LIFE HEALTH OUTCOMES: AN EPIGENETIC BRIDGE?

A growing body of evidence demonstrates that adverse events early in development, and particularly during intrauterine life, may program risks for diseases in adult life.

Increasing evidence has been accumulated indicating the important role of epigenetic regulation including DNA methylation, histone modifications and miRNAs in developmental programming.

Among the environmental factors which play an important role in programming of chronic pathologies, the endocrine-disrupting chemicals (EDCs) that have estrogenic, anti-estrogenic, and anti-androgenic activity are of specific concern because the developing organism is extremely sensitive to perturbation by substances with hormone-like activity.

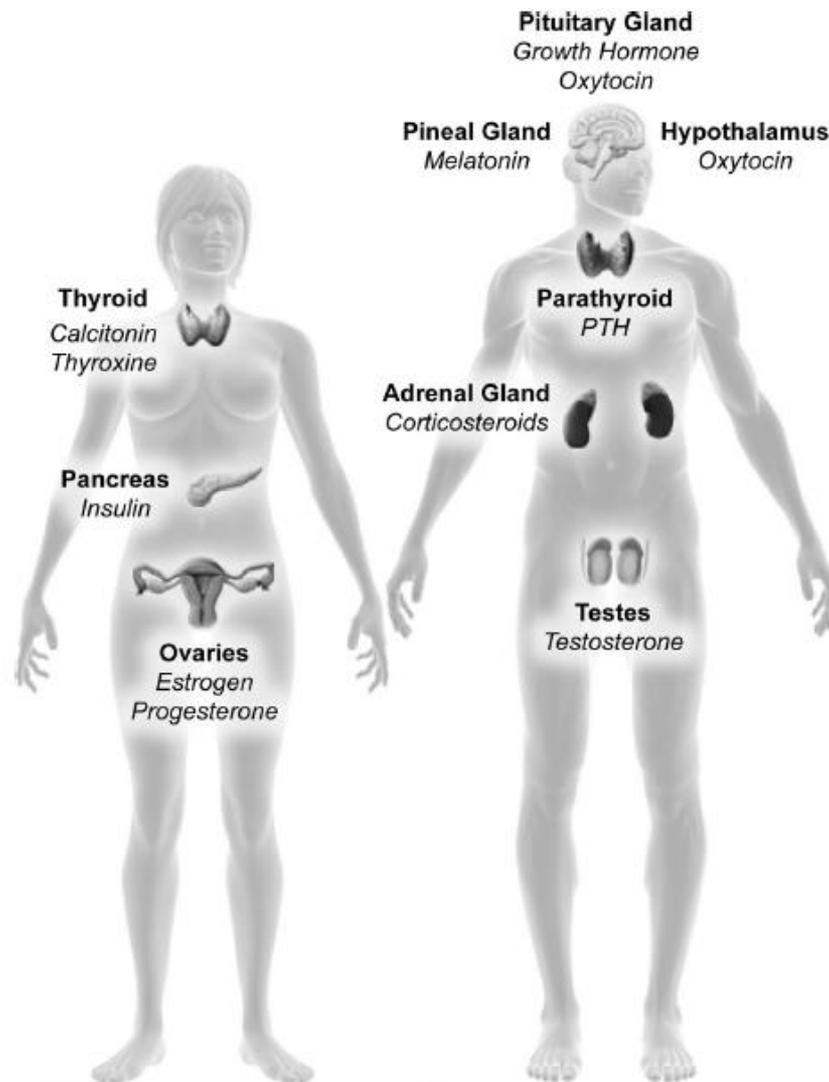


Fig. 1. Model of the endocrine systems targeted by EDCs. This figure illustrates that all major endocrine organs are vulnerable to endocrine disruption, including the HPA axis, reproductive organs, the pancreas, and the thyroid gland. EDCs are also known to impact hormone-dependent metabolic systems and brain function.

Source: Schug TT, et al. Endocrine disrupting chemicals and disease susceptibility. *Journal of Steroid Biochemistry & Molecular biology* 2011;127:204-215.

# APERT SYNDROME

Genetic disorder marked by deformity of the face, skull, hands, and feet. It can be seen in one of about 200,000 live babies.

Autosomal dominant trait with boys and girls affected equally. An affected parent can have transmit the gene for the disorder or both parents can be normal with the disorder appearing in the child due to a new mutation.

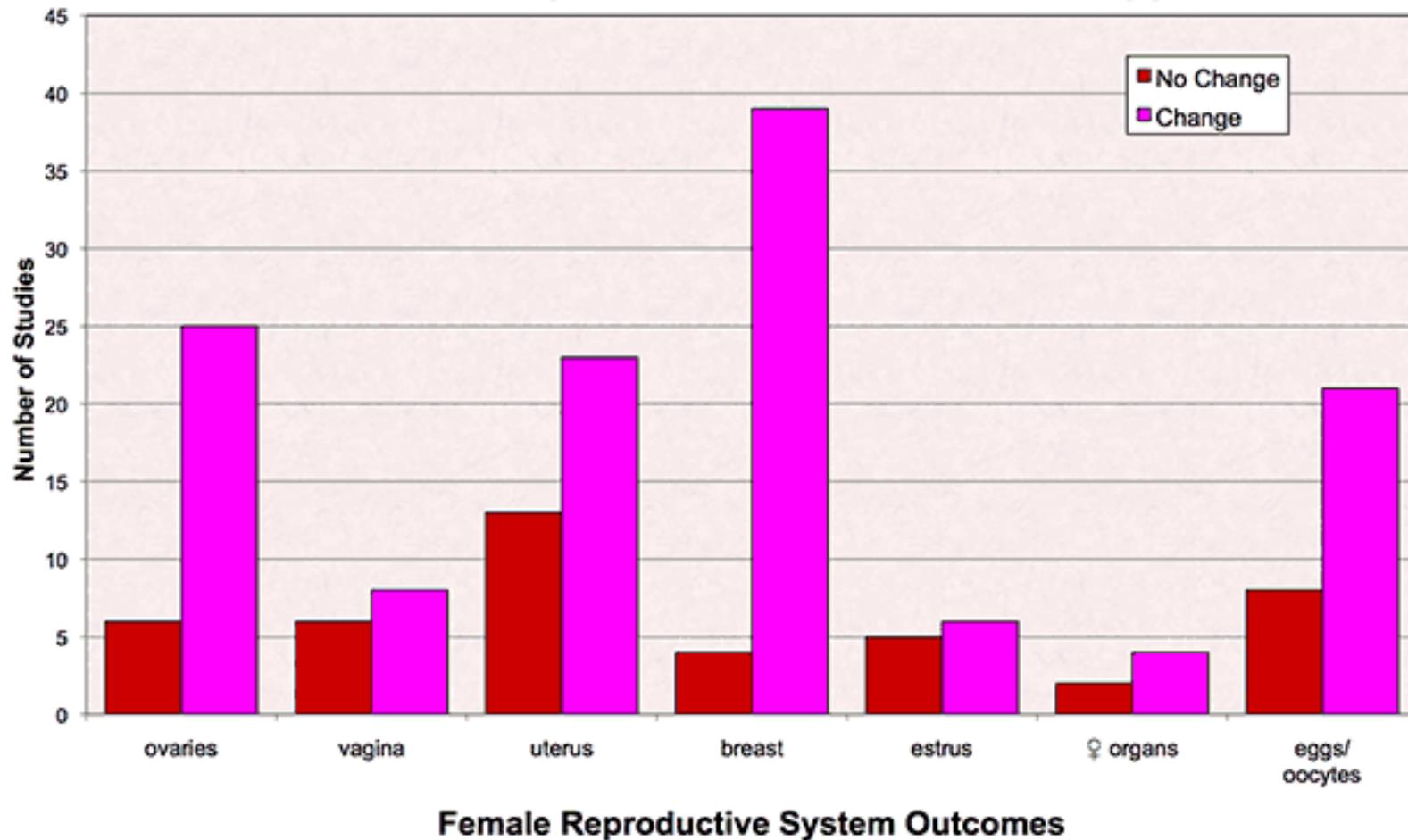


# BPA

The chemical bisphenol A was initially considered for use as a sex hormone drug. It's actually acts like the hormone produced in a woman's ovaries, it's an estrogen. And it's essentially like a drug in a birth control pill. And some chemists in the 1950's made plastic out of it. At the time, they didn't realize its long term effects.

We know that at very, very low levels in animals, we're seeing brain damage, reproductive damage, immune damage, diabetes, heart abnormalities, just an incredible array of disease.

## Comparison of Studies Reporting Effects vs No Effects as the Result of Exposure to BPA at Less than 1 ppm

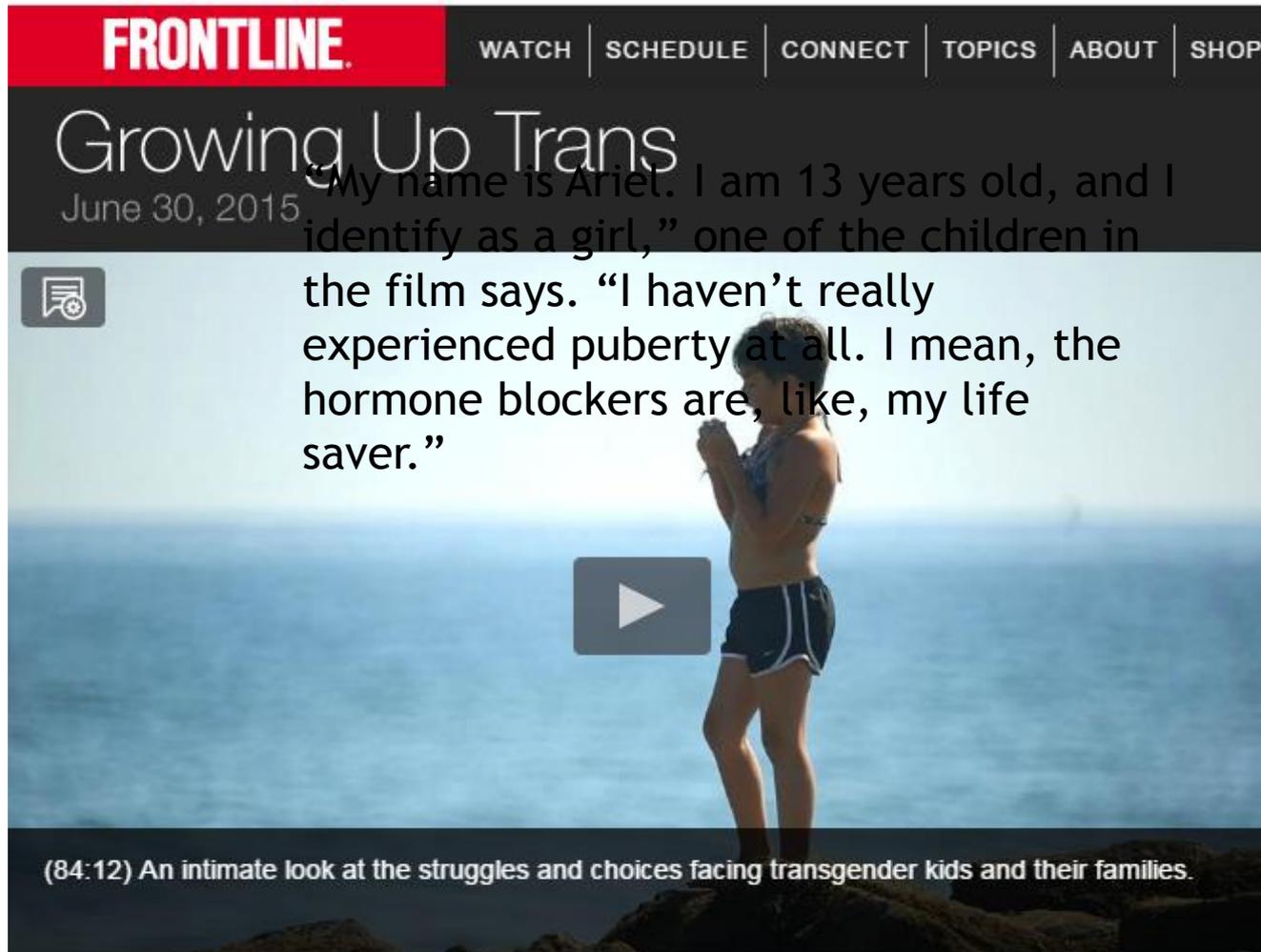


# BPA IS FOUND INSIDE THE BODIES OF OVER 90% OF AMERICANS

The United States National Health Survey relates bisphenol A levels in Americans to diabetes, obesity and heart disease as well as the amounts in women during pregnancy to abnormal behavior and aggressiveness in babies once they're born.



# CHILDREN ARE NOW BEING BORN WITH CONFUSION OVER THEIR IDENTITY AND THEIR BODY



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## Growing Up Trans

June 30, 2015

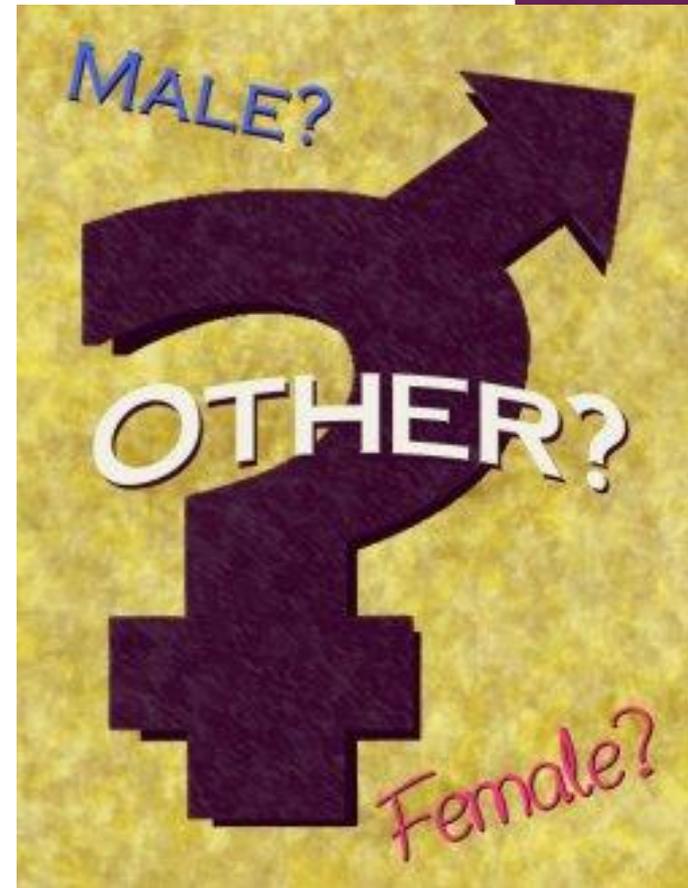
“My name is Ariel. I am 13 years old, and I identify as a girl,” one of the children in the film says. “I haven’t really experienced puberty at all. I mean, the hormone blockers are, like, my life saver.”

(84:12) An intimate look at the struggles and choices facing transgender kids and their families.

# THE COMING PLAGUE OF GENDER CONFUSION

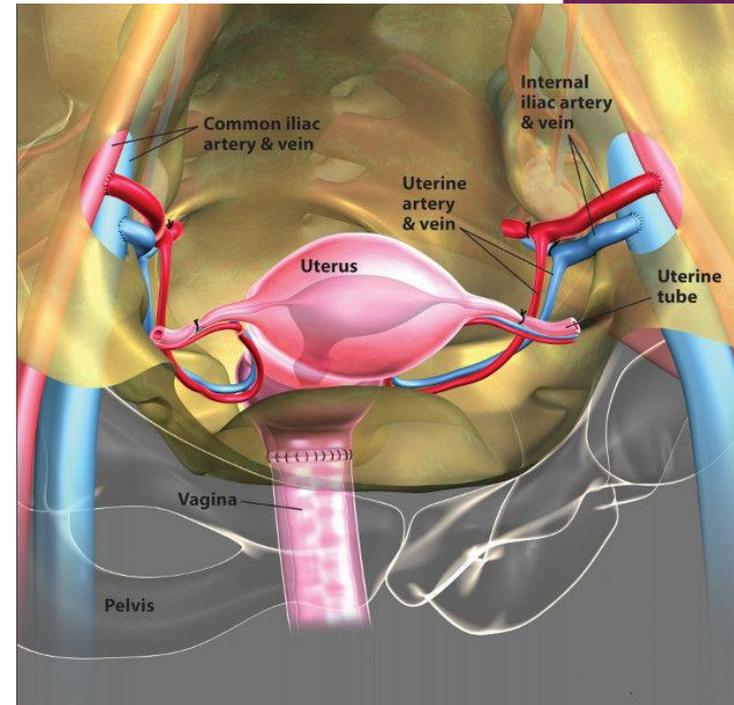
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“I haven’t really experienced puberty at all. I mean, the hormone blockers are, like, my life saver.”



# HERALDING OF A NEW ERA- UTERINE TRANSPLANTS

- 1 in 5,000 women are born without a functioning uterus – or no uterus at all.
- Cleveland Clinic successfully performed first uterine transplant (9 hours) on a 26-year-old woman Feb. 24th.
- Conception is achieved through IVF and the uterus is removed post-pregnancy.



WHERE DO WE GO FROM HERE?



# LESLIE CAROL BOTHA, WHE



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*The World According to Cycles How Recurring Forces Can Predict the Future and Change Your Life*

*Teenage Girls – The Guide to Health, Wellness and Self-Esteem*

*She Rises – Why Goddess Feminism, Activism and Spirituality?*