



Learning and Developmental Disabilities Links to Toxic Chemicals

Talking Points:

The developing brain is especially vulnerable to harm from toxic chemicals found in consumer products. For the developing fetus and infants, even very low doses of certain chemicals can cause lasting harm. Mounting scientific evidence shows that some of these chemicals are contributing to learning and developmental disabilities, including autism and ADHD.

Pregnant women and newborns have detectable levels of toxic chemicals in their bodies. These include chemicals that can harm brain development, such as flame retardant chemicals in couches and carpet pads; nonstick and stain resistant chemicals in cookware and clothing; endocrine disrupting chemicals found in some plastics, and metals such as lead and cadmium.

If talking about phthalates in products, can add: Chemicals such as phthalates in vinyl purses shower curtains, lunch boxes, and personal care products (i.e. fragrance in shampoos etc) are also under investigation for disrupting healthy brain development.

Research shows that in some children, these chemical exposures result in life-long problems with intelligence, attention and behavior.

LDA urges major retailers like [Walgreens](#) to tell suppliers to stop using toxic chemicals in the products we buy and use every day. [Walgreens](#) can help to reduce the use of toxic chemicals and protect children's health and development.

Helpful Statistics:

General LD-DD Statistics showing that LD-DDs are on the rise:

- 1 in 6 children under the age of 18 have a developmental disability, ranging from mild disabilities such as speech and language impairments to serious developmental disabilities, such as intellectual disabilities, cerebral palsy, and autismⁱ;
- 1 in 68 children in the U.S. have an autism spectrum disorder ⁱⁱ;
- 7% of children in the U.S. have a learning disability ⁱⁱⁱ;

- Nationally, 11% of children 4-17 years of age (6.4 million) have been diagnosed with ADHD ^{iv}; and
- According to the CDC, these disabilities are rising at an alarming rate: learning disabilities have risen by about 5%, developmental disabilities by about 17%, ADHD by 33%, and autism by about 290% (1997 to 2008) ^v.

Statistic on Links Between Toxic Chemicals and LD-DD:

The National Academy of Sciences Committee on Developmental Toxicology, estimates that **at least 28% of developmental defects are caused in whole or part by environmental exposures to toxic chemicals.** This means that 360,000 U.S. children (1 in every 200 U.S. children) suffer from developmental or neurological deficits caused by exposure to known toxic substances. *** If you have, can add state statistics like “In STATE, X children adults have learning disabilities and thousands more have attention deficit disorder/attention deficit hyperactivity disorder (ADD/ADHD). For example: In Maine, 13,400 children and 127,000 adults in Mainers are identified as having learning disabilities--thousands more have attention disabilities (ADD and ADHD)**

More information on this statistic above with references: The etiology of learning and development disabilities may include one or more of a complex variety of factors, including genetics, substance abuse, social environment and environmental exposure to toxic chemicals. The National Academy of Sciences estimates that at least 3 % of developmental and neurological disabilities are due directly to toxic environmental exposure and 25% are due to gene and environmental interactions caused by exposure to known toxic substances^{vi}. This means that 360,000 U.S. children (1 in every 200 U.S. children) suffer from developmental or neurological deficits caused by exposure to known toxic substances^{vii}.)

Other Resources:

Safer Chemicals Healthy Families health report section on learning and developmental disabilities (Tracy can share this part of the report again if helpful):

<http://healthreport.saferchemicals.org/learning.html>

Maureen Swanson’s blog summer 2013 on protecting brain developmental from toxic chemicals: <http://blog.saferchemicals.org/2013/08/think-about-the-brain.html>

Statistics on CDC site:

ADHD <http://www.cdc.gov/ncbddd/adhd/data.html> and ADHD by State

<http://www.cdc.gov/ncbddd/adhd/stateprofiles/index.html>

Developmental Disabilities:

<http://www.cdc.gov/ncbddd/developmentaldisabilities/features/birthdefects-dd-keyfindings.html>

ⁱ Center for Disease Control and Prevention (CDC): <http://www.cdc.gov/ncbddd/autism/data.html>

ⁱⁱ CDC: <http://www.cdc.gov/ncbddd/autism/data.html>

ⁱⁱⁱ CDC: http://www.cdc.gov/features/dsdev_disabilities/

^{iv} CDC: <http://www.cdc.gov/ncbddd/adhd/data.html>

^v CDC: http://www.cdc.gov/features/dsdev_disabilities/

^{vi} The National Academy of Sciences Committee on Developmental Toxicology, 2000
http://www.nap.edu/openbook.php?record_id=9871&page=R1

^{vii} "Polluting Our Future: Chemical Pollution in the U.S. that Affects Child Development and Learning", National Environmental Trust, Physicians for Social Responsibility, and Learning Disabilities Association of America, September 2000. <http://www.bvsde.paho.org/bvsana/i/fulltext/chemical/chemical.pdf>