

Environmental Toxins and Disabilities: A Concern Throughout the Lifespan

What is mental retardation? What are developmental disabilities?

Persons with mental retardation have limitations in intellectual functioning and have trouble learning the practical skills necessary to live independently in society. For example, they may need assistance in order to read and write, to handle money, to use public transportation, or to find and keep a job.

Developmental disabilities include mental retardation, plus other conditions that affect the nervous system and behavior. Examples include cerebral palsy, epilepsy, attention deficit disorder, and autism.

How do toxins in the environment affect persons with developmental disabilities (DD)?

Toxins are chemicals that can harm us. They may enter our bodies through what we eat or drink, through the air we breathe, or through our skin. Toxins can be found in our homes, our schools, and our workplaces.

Toxins in the environment are an important concern for persons with developmental disabilities. Sometimes developmental disabilities are specifically caused by exposure to toxins prior to birth or during childhood. Others born with disabilities may suffer additional health problems or further decline in intellectual functioning from exposure to toxins throughout their lives.

What environmental toxins do pregnant women and their families need to know about?

Babies still developing in the womb may be harmed by small amounts of toxins that would have little or no impact on children or adults. Examples include:

Alcohol. Even one alcoholic drink per day can injure unborn babies. Just one night of binge drinking at a critical time of development can injure a fetus (baby developing in the womb)

Mercury. For every 100 women of childbearing age, 8 have blood levels of mercury that could harm a developing fetus. One common source of mercury is by eating fish. Women should avoid eating more than 7 ounces of fatty fishes (tuna, shark, swordfish, tilefish, and mackerel) per week.

Nicotine. Pregnant women who smoke or who are just exposed to “second-hand” smoke have children with greater risks for intellectual disabilities.

What toxins are hazardous to children and adults with developmental disabilities?

Persons with developmental disabilities are more vulnerable to further injury from toxins compared to the general population. They may have less control over exposure to and escape from toxins. Examples include:

Lead. Lead is still a serious and common toxin in the United States. Lead is found in house paint manufactured before 1978, some calcium supplements, children's toys, decaying Venetian blinds, and even pencils, crayons and chalk manufactured in foreign countries. Home remodeling can release lead into the environment.

Pesticides and herbicides. Pesticides are chemicals that kill mice, ants, roaches and other pests. Herbicides kill weeds. Pesticides can be found in the skins of fruits and vegetables, on the chemical tick-and-flea collars of your dog or cat, and in the insecticide sprays people use in their homes and apartments.

Cleaning products. These may contain toxins that can be breathed in or enter the body through the skin.

Flame retardants and plastics. These all may contain chemicals that may injure the developing brain in the womb and after birth. Cleaning practices such as washing plastic baby bottles in bleach may "leach" dangerous chemicals out of plastic.

How can I lower the chance of toxins injuring my family member with developmental disabilities?

Know what toxins you may be exposed to at work, through gardening and other hobbies, and through household cleaning, home remodeling, and other household activities.

Consider environmental risks according to the developmental level of your child, not his age. For example, if your older child often puts non-food items in his mouth, and spends much of his time on the floor, his risk for lead poisoning may be more like that of a toddler.

Remember that your family member may not be able to communicate symptoms from environmental exposures. She may not be able to report shortness of breath from exposure to flowers or cleaning products, or headaches from carbon monoxide.

Good nutrition from a healthy diet can protect you and your family from some toxins. For example, a diet high in iron, calcium, zinc and vitamin D offers some protection against the harmful effects of lead.

Where can I learn more?

Your local health department. Look in the telephone book under the city government section.

Physicians for Social Responsibility

<http://www.psr.org/>

Pediatric Environmental Health Specialty Unit

<http://www.cehn.org/cehn/resourceguide/pehsu.html>

American Association on Intellectual and Developmental Disabilities

<http://www.aaidd.org/>