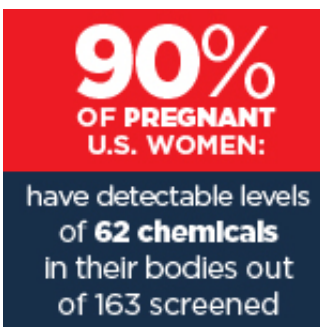


Scientists, physicians and advocates agree that environmental toxins hurt brain development

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A graphic highlighting the percentage of pregnant women with detectable chemicals in their bodies. Credit: Project TENDR

An unprecedented alliance of leading scientists, health professionals, and children's and environmental health advocates agree for the first time that today's scientific evidence supports a link between exposures to toxic chemicals in air, water, food and everyday products and children's risks for neurodevelopmental disorders.

In a [consensus statement](#) published today in *Environmental Health Perspectives*, the alliance, known as Project TENDR (Targeting Environmental Neuro-Developmental Risks), calls for immediate action to significantly reduce exposures to toxic chemicals and protect [brain development](#) now and for generations to come.

Neurodevelopmental disorders include intellectual disability, autism spectrum disorder, attention-deficit/hyperactivity disorder, and learning and other disabilities.

The chemicals and pollutants highlighted in the consensus statement as contributing to children's learning, intellectual and behavioral impairments are:

- Organophosphate (OP) pesticides
- Polybrominated diphenyl ethers (PBDEs) used as flame retardants
- Combustion-related air pollutants, which include [polycyclic aromatic hydrocarbons](#) (PAHs), nitrogen dioxide and particulate matter
- Lead, with primary sources of water pipes and paint
- Mercury
- Polychlorinated biphenyls (PCBs), industrial chemicals that were commonly used in electrical equipment and now pollute landfills and water

More information on each of these compounds and how families can protect themselves from them is on the Project TENDR website:

<http://projecttendr.com>

"This is truly a historic agreement," said Irva Hertz-Picciotto, co-director of Project TENDR and professor of public health sciences at UC Davis and the UC Davis MIND Institute. "Ten years ago, this consensus wouldn't have been possible, but the scientific research is now abundantly clear: toxic chemicals are harming our children's brain development. As a society, we can eliminate or significantly lower these toxic chemical exposures and address inadequate regulatory systems that have allowed their proliferation. These steps can, in turn, reduce high rates of neurodevelopmental disorders."

Maureen Swanson, leader of the Healthy Children Project of the Learning Disabilities Association of America and co-director of Project TENDR, added that broad-based collaboration was necessary to highlight the amount of evidence that is available on toxins and brain health.

"This national problem is so pressing that the TENDR scientists and [health professionals](#) will continue their collaboration to develop and issue recommendations aimed at significantly reducing exposures to toxic chemicals that are harming children's brain development," Swanson said. "Calling for further study is no longer a sufficient response to this threat."

The Project TENDR consensus statement is available online at <http://ehp.niehs.nih.gov/EHP358/>

More information: Deborah Bennett et al, Project TENDR: Targeting Environmental Neuro-Developmental Risks The TENDR Consensus Statement, *Environmental Health Perspectives* (2016). [DOI: 10.1289/EHP358](#)

Project TENDR is an alliance of 48 of the nation's top scientists, health professionals and health advocates. It was launched by Maureen Swanson of the Learning Disabilities Association of America and Irva Hertz-Picciotto of UC Davis, who brought together participants across many disciplines and sectors, including epidemiology, toxicology, exposure science, pediatrics, obstetrics and gynecology, nursing, public health, and federal and state chemical policy. Medical and scientific societies that have signed on in support include the American Congress of Obstetricians and Gynecologists, American Nurses Association, Endocrine Society, National Association of Pediatric Nurse Practitioners, National Medical Association, National Hispanic Medical Association, Alliance of Nurses for Healthy Environments, Physicians

for Social Responsibility and the National Council of Asian Pacific Islander Physicians. TENDR's long-term mission is to lower the incidence of neurodevelopmental disorders by reducing exposure levels to chemicals and pollutants that can contribute to these conditions, especially during fetal development and early childhood. More information about Project TENDR is at <http://projecttendr.com/>

Provided by UC Davis

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