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Contact Elie Ward, (518) 441-4544

New York’s Pediatricians Call on Governor to Ban Chlorpyrifos

The New York State American Academy of Pediatrics, representing more than 5,000 pediatricians across the state, today called on Governor Andrew Cuomo to sign Senate bill S5343 and ban the neurotoxic pesticide chlorpyrifos in New York.

“There are numerous studies showing that exposure to chlorpyrifos in the womb harms children’s brain development. The science is clear, and this pesticide should have been banned years ago,” said Warren Seigel, MD, MBA, Chair, New York State American Academy of Pediatrics. “We, as pediatricians, urge the Governor to sign the bill and protect kids now.”

Chlorpyrifos is part of a class of chemicals developed by Nazi Germany as chemical weapons. In recent decades, it has become clear that even low levels of exposure to chlorpyrifos can harm the developing brains of infants and children. In May, dozens of leading scientists and clinicians sent a letter (attached) to the Governor explaining how chlorpyrifos reduces IQ and increases the risk of behavioral disorders like ADHD.

The U.S. Environmental Protection Agency (EPA) had proposed a rule to ban chlorpyrifos and protect children’s health. Yet, just weeks after taking office, the Trump administration disregarded the science and killed the proposal. The American Academy of Pediatrics said it was “deeply alarmed” by this decision. With no progress at EPA, the nation’s pediatricians have supported state bills to ban chlorpyrifos.

Contact

Elie Ward, MSW
Director of Policy & Advocacy
NYS AAP, A Coalition of Chapters 1,2 & 3
eward@aap.net
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The Honorable Andrew M. Cuomo
Governor of New York
State Capitol Building
Albany, NY 12224

Re: Scientific Evidence of the Relationship Between Prenatal Exposure to Chlorpyrifos and Neurodevelopmental Harm in Children

Dear Governor Cuomo,

We are scientists and health professionals with expertise in toxic chemicals that harm the developing brain. Many of us are affiliated with Project TENDR, a collaboration of leading scientists, health professionals, and children’s health and environmental advocates who came together out of concern over the substantial evidence linking toxic chemicals to neurodevelopmental disorders, such as autism spectrum disorder, attention deficits, hyperactivity, intellectual disability, and learning disorders.\(^1\)

In 2016, Project TENDR published a consensus statement that reviewed the scientific evidence and identified organophosphate pesticides, such as chlorpyrifos, as prime examples of chemicals that contribute to intellectual impairments and specific neurodevelopmental disorders.\(^2\) There is clear evidence that the continued use of chlorpyrifos is harmful to brain development, with persistent consequences.

Many studies in the United States and other countries, spanning diverse populations in both urban and agricultural settings, have linked low-level exposure to chlorpyrifos and other organophosphates during pregnancy with poorer cognitive, behavioral, and social development in children.\(^3,4,5\) In one review, adverse effects on neurodevelopment were seen in all but one of the 27 studies evaluated.\(^6\)

The toxic effects of organophosphate pesticides include abnormal reflexes in newborns; mental and psychomotor delays in preschoolers; and decreases in working and visual memory, processing speed, verbal comprehension, perceptual reasoning, and IQ in elementary school-age children. These pesticides are associated with symptoms or diagnoses of attention-deficit/hyperactivity disorder (ADHD) and autism spectrum disorder. Studies have identified changes in the brain structure of children exposed to chlorpyrifos in the womb, and these changes are consistent with neurodevelopmental deficits reported previously.\(^7\) In many of these studies, there was no evidence of a threshold or “safe” level of exposure.

In addition to the epidemiologic findings in children, effects on cognition, motor activity, and social behaviors were repeatedly demonstrated in rodents dosed with low levels of chlorpyrifos and other organophosphates in early life.\(^8,9\) The weight of the scientific evidence clearly indicates that chlorpyrifos is a neurodevelopmental toxicant.
Importantly, the developmental toxicity of chlorpyrifos occurs at levels of exposure that do not cause acute poisoning. The absence of poisoning symptoms does not mean that neurologic damage has not occurred. As explained above, the developmental effects do not manifest until months or years after prenatal exposure. The evidence therefore indicates that chlorpyrifos can interfere with brain development at levels previously thought to be safe.

In 2016, US EPA concluded that exposure to chlorpyrifos from food or drinking water could lead to unacceptably high exposures and determined that some reproductive-aged women, infants, and children consume levels of chlorpyrifos on food that are substantially above what the agency deemed an acceptable level for these vulnerable life stages. The agency reviewed hundreds of uses of chlorpyrifos and determined that all of them could result in unsafe exposures for agricultural workers.

US EPA concluded that chlorpyrifos does not meet the federal safety standard of a “reasonable certainty of no harm” and proposed banning uses of chlorpyrifos on food crops. This would have eliminated nearly all of the remaining uses of this pesticide. However, in March 2017, despite the overwhelming evidence of harm and US EPA’s own conclusions, the Trump administration announced that it would not ban any uses of chlorpyrifos. It is unfortunate that US EPA did not finalize the proposed ban. However, states can act to protect children where the federal government has stalled.

For additional information, please see a review of the scientific evidence that organophosphates harm child neurodevelopment, which was published last year by eight scientists affiliated with Project TENDR. This letter draws primarily from that review. If you have any questions, please contact Maureen Swanson, MPA, Co-Director, Project TENDR and Director, Healthy Children Project at the Learning Disabilities Association of America, at mswanson@ldaamerica.org.

Sincerely,

Laura Anderko, PhD, RN
Robert and Kathleen Scanlon Endowed Chair in Values Based Health Care and Professor
School of Nursing and Health Studies, Georgetown University*

John R. Balmes, MD
Professor of Medicine
University of California, San Francisco
Professor of Environmental Health Sciences
University of California, Berkeley*

David C. Bellinger, PhD, MSc
Boston Children’s Hospital
Harvard Medical School
Harvard T.H. Chan School of Public Health*
Deborah Bennett, PhD  
Associate Professor, Department of Public Health Sciences  
School of Medicine, University of California, Davis*

Asa Bradman, PhD, MS  
Associate Adjunct Professor, Department of Environmental Health Sciences  
University of California, Berkeley*

Jessie Buckley, PhD, MPH  
Assistant Professor, Department of Environmental Health & Engineering  
Johns Hopkins Bloomberg School of Public Health*

Carla Campbell, MD, MS, FAAP  
Associate Professor of Public Health, Department of Public Health Sciences  
University of Texas at El Paso*

Aimin Chen, MD, PhD  
Associate Professor, Division of Epidemiology, Department of Environmental Health  
University of Cincinnati College of Medicine*

Jeanne A. Conry, MD, PhD  
President, The Environmental Health Leadership Foundation  
Past President, The American College of Obstetricians and Gynecologists  
President-elect, The International Federation of Gynecology and Obstetrics*

Stephanie M. Engel, PhD  
Professor, Department of Epidemiology  
Gillings School of Global Public Health, University of North Carolina, Chapel Hill*

Brenda Eskenazi, PhD, MA  
Brian and Jennifer Maxwell Endowed Chair in Public Health  
University of California, Berkeley*

Robert M. Gould, MD  
Associate Adjunct Professor, Program on Reproductive Health and Environment  
University of California, San Francisco School of Medicine  
Immediate Past President, Physicians for Social Responsibility*

Alycia Halladay, PhD  
Chief Science Officer, Autism Science Foundation  
Adjunct, Department of Pharmacology and Toxicology  
Rutgers University*
Russ Hauser, MD, ScD, MPH
Chair, Department of Environmental Health
Frederick Lee Hisaw Professor of Reproductive Physiology
Professor of Environmental and Occupational Epidemiology
Harvard T.H. Chan School of Public Health
Professor of Obstetrics, Gynecology and Reproductive Biology
Harvard Medical School*

Irva Hertz-Picciotto, PhD
Director, Environmental Health Sciences Core Center
Professor and Vice Chair for Research, Department of Public Health Sciences
MIND Institute Program on Epidemiology of Autism and Neurodevelopment
University of California, Davis*

Deborah Hirtz, MD
Professor, Neurological Sciences and Pediatrics
University of Vermont School of Medicine*

Megan K. Horton, PhD, MPH
Assistant Professor, Department of Environmental Medicine and Public Health
Icahn School of Medicine at Mount Sinai*

Katie Huffling, RN, MS, CNM
Executive Director
Alliance of Nurses for Healthy Environments*

Carol Kwiatkowski, PhD
Executive Director, The Endocrine Disruption Exchange (TEDX)
Assistant Professor Adjunct
North Carolina State University
University of Colorado, Boulder*

Juleen Lam, PhD
Assistant Professor, Department of Health Sciences
California State University East Bay*

Philip J. Landrigan, MD, MSc, FAAP
Director, Global Public Health Program
Director, Global Observatory on Pollution and Health
Professor of Biology
Schiller Institute for Integrated Science and Society
Boston College*
Bruce P. Lanphear, MD, MPH  
Professor, Faculty of Health Sciences  
Simon Fraser University*

Arthur Lavin, MD, FAAP  
Associate Clinical Professor of Pediatrics  
Case Western Reserve University School of Medicine*

Mark A. Mitchell MD, MPH, FACPM  
Chair, Council on Medical Legislation  
Chair, Commission on Environmental Health  
National Medical Association  
Associate Professor  
George Mason University*

Devon C. Payne-Sturges, DrPH  
Assistant Professor, Maryland Institute for Applied Environmental Health  
School of Public Health, University of Maryland*

Frederica Perera, DrPH, PhD  
Professor of Public Health  
Director Translational Research and Founding Director  
Columbia Center for Children's Environmental Health  
Mailman School of Public Health, Columbia University*

Lesliam Quirós-Alcalá, PhD, MS  
Assistant Professor, Maryland Institute for Applied Environmental Health  
School of Public Health, University of Maryland*

Virginia A. Rauh, ScD  
Professor, Heilbrunn Department of Population and Family Health  
Mailman School of Public Health, Columbia University*

Beate Ritz, MD, PhD  
Professor of Epidemiology  
Center for Occupational and Environmental Health  
Fielding School of Public Health, U. of California Los Angeles*

Leslie Rubin, MD  
Associate Professor, Department of Pediatrics  
Morehouse School of Medicine  
Co-director, Southeast Pediatric Environmental Health Specialty Unit  
Emory University*
Susan L. Schantz, PhD  
Professor of Toxicology and Neuroscience  
Illinois Children’s Environmental Health Research Center  
Director, Beckman Institute for Advanced Science and Technology  
University of Illinois, Urbana-Champaign*

Ted Schettler, MD, MPH  
Science Director, Science and Environmental Health Network*

Veena Singla, PhD  
Associate Director, Science and Policy, Program on Reproductive Health and the Environment  
Department of Obstetrics, Gynecology and Reproductive Sciences  
University of California, San Francisco*

Patrice Sutton, MPH  
Research Scientist, Program on Reproductive Health and the Environment  
University of California, San Francisco*

Tanya Khemet Taiwo, CPM, MPH, PhD  
Assistant Professor, Department of Midwifery  
Bastyr University*

Robin M. Whyatt, DrPH  
Professor Emerita, Department of Environmental Health Sciences  
Mailman School of Public Health, Columbia University*

Tracey Woodruff, PhD, MPH  
Professor and Director, Program on Reproductive Health and the Environment  
Department of Obstetrics, Gynecology and Reproductive Sciences  
University of California, San Francisco*

R. Thomas Zoeller, PhD  
Professor of Biology  
Director, Laboratory of Molecular & Cellular Biology  
University of Massachusetts, Amherst*

Ami Zota, ScD, MS  
Assistant Professor, Department of Environmental and Occupational Health  
Milken Institute School of Public Health, The George Washington University*

* All institutions are listed for identification purposes only.

cc:  Senator Todd Kaminsky, Chair, Senate Environmental Conservation Committee  
Assemblyman Steve Englebright, Chair, House Environmental Conservation Committee
References

1 For additional information on Project TENDR, see http://projecttendr.com.


6 Id.


13 Id.
