



# Learning and Developmental Disabilities Initiative

[of the Collaborative on Health and the Environment](#)



**Biweekly Bulletin June 29, 2011**

This bulletin lists upcoming events plus recent announcements, news and journal articles, calls for proposals and other items related to learning and developmental disabilities and environmental health. They are archived and searchable on LDDI's website:

[www.healthandenvironment.org/working\\_groups/learning/r/bulletins](http://www.healthandenvironment.org/working_groups/learning/r/bulletins)

## LDDI Highlights

### **AAIDD Environmental Health Initiative Workshop Held in St. Paul on June 9th.**

AAIDD's Environmental Health Initiative (EHI) presented a unique forum on June 9th in Saint Paul, Minnesota, to explore the science, policy and economics of environmental exposures and the health impacts on those with intellectual and developmental disabilities (IDD). A luncheon panel highlighted autism and special cases in Minnesota. The workshop was supported by the John Merck Fund. The workshop featured nationally prominent speakers and those familiar with state developments:

- David Wallinga, MD, MPA, of the Institute for Agriculture and Trade Policy, tackled the science and links between environmental exposures and impacts on the developing brain.
- Leo Trasande, MD, MPH, of Mt. Sinai Hospital, discussed the costs associated with IDD and presented the national cost data while Kathleen Schuler, MPH, IATP, Healthy Legacy responded with the costs incurred by Minnesota.
- Anne Kelly, MD, MPH, Minnesota pediatrician and expert on autism; Donna Ferullo, MA, director of program research at the Autism Society; and Huda Farah, MSc, of Minnesota, director of the HEAL Institute and contributor to the original Health Department study on a Somali cluster, highlighted autism and special cases in Minnesota.
- Lindsay Dahl of Safer Chemicals, Healthy Families; Dan Endresson, MA, of Healthy Legacy in Minnesota; Kate Knuth, Minnesota state representative and sponsor of the Toxic Free Kids Act; and Dan Endresson of Clean Water Action focused on the policy issues and legislative developments related to environmental exposures and the health impacts on those with intellectual and developmental disabilities.

To view the PowerPoint slides of the workshop speakers visit the [AAIDD website](#).

Supporting Organizations: Autism Society, Minnesota LEND Program, Minnesota Consortium on Disabilities, Arc Healthy Legacy, Learning Disabilities Association of America (LDA), and the Learning and Developmental Disabilities Initiative (LDDI)

### **Autism Society National Conference, July 6-9, 2011**

The Autism Society welcomes all who wish to learn more about autism, network with others affected by autism, and learn the latest on autism and environmental health and public policy to their annual national conference in Orlando, Florida. Child care is available, and Disney World excursions are close by. The conference will feature the third annual science symposium on Saturday July 9th. Leading scientists and advocates will discuss autism and environmental health, the latest research on environmental influences and the developing brain, and policy needs to protect the public.

### **Webinar July 23rd: Autism and Environment: What Do We Know?**

The Autism Society will present four renowned autism experts to discuss the rise in autism vis-a-vis environmental and chemical changes in the world and clinical steps used to treat autism now. For more information, please see event #7 below.

## **Announcements**

*A daily news feed with articles and announcements is available on CHE's website:*

<http://www.healthandenvironment.org/news/announce>.

### **Partnership for Sustainable Communities website.**

Three federal agencies came together to create the Partnership for Sustainable Communities to help places around the country develop in more environmentally and economically sustainable ways. The website provides information and resources.

### **EPA seeks public input on plan for cleanup at Puchack Superfund Site in Pennsauken Township, New Jersey.**

The 450,000-square-foot site contains six public drinking water supply wells that have been taken out of use to protect people's health.

### **New report: National Prevention Strategy.**

The National Prevention, Health Promotion, and Public Health Council, announced the release of the National Prevention Strategy, a comprehensive plan that will help increase the number of Americans who are healthy at every stage of life.

### **EPA improves access to information on hundreds of chemicals.**

EPA is releasing two databases -- the Toxicity Forecaster database (ToxCastDB) and a database of chemical exposure studies (ExpoCastDB) -- that scientists and the public can use to access chemical toxicity and exposure data.

### **Call for proposals: Susan Harwood Training Grant Program.**

Grants are awarded to provide training and education programs for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in the workplace, and to inform workers of their rights and employers of their responsibilities under the Occupational Safety and Health (OSH) Act. The deadline is July 20th.

### **Call for proposals: Capacity Building for Sustainable Communities.**

Grant recipients will work to strengthen the capacity of existing grantees from each agency to create more housing choices, make transportation more efficient and reliable, and support vibrant and healthy neighborhoods for American families. Proposals are due by July 8th.

### **Call for proposals: Healthy People 2020 Community Innovations Project.**

Nonprofit, community-based organizations with budgets less than \$750,000 can apply for these funds for community-level projects that use Healthy People 2020 overarching goals, topic areas and objectives to promote improved health at a community level. The deadline is August 5, 2011.

## **Upcoming Events**

**Online Calendar.** These and more upcoming events are listed in a searchable calendar: <http://www.healthandenvironment.org/cgi-bin/searchevents.cgi>. The calendar now lists deadlines for funding proposals and conference abstracts.

### **1) Connect the Dots: An Early Learning Exchange**

Thursday June 30, 2011

9:00 a.m. - 4:00 p.m.

Seattle, Washington

at Seattle Public Library, Microsoft Auditorium, 1000 4th Avenue

Sponsor: Foundation for Early Learning

Join us for a cutting-edge event featuring brief lectures from education leaders and community advocates. Each will talk about their passion for early learning. With a high-pace format similar to the popular TED lecture series, speakers will give presentations ranging from 12 to 18 minutes in length on various topics related to early learning. This conference will bring together unique perspectives and encourage networking between speakers and attendees.

Price: \$38 - \$100; see the website for details

[Visit the website](#)

Contact: Erin Okuno, 206-525-4801 x23 or [erin@earlylearning.org](mailto:erin@earlylearning.org)

## **2) Is It in You? BPA and Phthalates in Food Packaging: Reducing Dietary Exposure**

Thursday June 30, 2011

noon Eastern / 11:00 a.m. Central / 9:00 a.m. Pacific time

Sponsor: Healthy Food Action; Healthy Legacy; Safer Chemicals, Healthy Families

A striking new peer-reviewed study in *Environmental Health Perspectives* found that eliminating canned and other prepackaged foods from a family's diet over a three-day period and replacing foods with fresh, organic meals significantly reduced the levels of certain chemicals in the body. Concentrations of bisphenol A (BPA) in urine dropped by an average of 66%, and levels of the phthalate DEHP decreased over 50%. This webinar will explore the findings of this study and equip health professionals with information on how to reduce environmental exposures to BPA and DEHP. Is it in you? The probability of these chemicals being detected in someone is 93% for BPA and around 75% for DEHP, according to the Centers for Disease Control and Prevention. Most people have BPA and DEHP in their bodies. There is reason for concern because both are endocrine disrupters. BPA has been associated with adverse effects on the developing brain and mammary and prostate glands in laboratory studies, raising concerns about cancer and brain development in humans. DEHP, at common exposure levels, affects male reproductive development, steroid hormone levels, and sperm quality in human and laboratory studies. The public outcry over these chemicals has been steadily rising in recent years. Minnesota and several other states have passed laws to ban the use of BPA in baby bottles and sippy cups, and federal law prohibits phthalates in children's toys. However, exposures to these chemicals continues from epoxy resins containing BPA used to line food cans and plastic packaging with DEHP, as well as in many non-food-related consumer products.

Price: free

[Visit the website](#)

Contact: [HealthyFoodAction@iatp.org](mailto:HealthyFoodAction@iatp.org)

## **3) Navigating the Science: Evaluating Research Quality**

Thursday June 30, 2011

1:00 p.m. Pacific / 4:00 p.m. Eastern time

Sponsor: Collaborative on Health and the Environment

Scientific evidence on the health effects of environmental contaminants continues to mount. The range of research available is, however, of variable quality and largely unfamiliar to health care professionals. Researchers at the University of California San Francisco's Program on Reproductive Health and the Environment, along with multiple partners, have developed a methodology called the Navigation Guide that links evidence-based medicine and environmental health evaluation. As recently described in the journal *Health Affairs*, the Navigation Guide is a valuable tool to evaluate the quality of evidence and to support evidence-based decision making by clinicians, patients, professional

organizations and governmental agencies for environmental chemicals. Join the CHE Fertility Working Group on this CHE Partnership call for an important discussion on the development of the Navigation Guide and its practical applications. Dr. Tracey Woodruff from UCSF will present the theoretical basis for the methodology. Dr. Jeanne Conry of ACOG District IX will explain how to use the tool to find the best available evidence to make clinical decisions and recommendations. Dr. Kristina Thayer of the National Toxicology Program will describe the contribution of this methodology to the field of risk assessment. To round out the discussion, Dr. Kate Guyton of the US EPA will discuss the relevance of the Navigation Guide to policy making human health risk assessments of environmental chemicals at US EPA.

Price: free

[Visit the website](#)

Contact: CHE, [info@healthandenvironment.org](mailto:info@healthandenvironment.org)

#### **4) Beit Issie Shapiro 5th International Conference on Disabilities**

Tuesday through Thursday, July 5 - 7, 2011

Tel Aviv, Israel

at the Dan Panorama Hotel

Sponsor: Beit Issie Shapiro

The conference, which takes place every 4 years, provides its attendees with the opportunity to learn from and exchange ideas with professionals, researchers and policy makers, as well as individuals with disabilities and parents of children with disabilities from around the world. The conference theme is "Learning from the Past Shaping the Future."

Price: see the [Registration page](#)

[Visit the website](#)

Contact: see the [Contact page](#)

#### **5) Mercury Effects on Human Health**

Wednesday July 13, 2011

8:30 a.m. - 5:00 p.m.

Seattle, Washington

at the Holiday Inn Cascade Room

Sponsor: EOS Alliance

Both organic and elemental mercury create a wide spectrum of human health concerns. Mercury spills cost public and private entities millions of dollars a year in cleanup and health care costs. This series of courses addresses concerns mercury causes by providing participants with a foundation in the science of environmental mercury and presents solutions for mitigating the impacts of this ubiquitous contaminant.

Price: \$250

[Visit the website](#)

Contact: Northwest Environmental Training Center, 425-270-3274

#### **6) International Conference on Intellectual & Developmental Disabilities 2011**

Monday through Wednesday, July 18 - 20, 2011

Kota Kinabalu, Sabah Malaysia

at the Recital Hall, School of Psychology & Social Work, Universiti Malaysia Sabah

Sponsor: Seri Mengasih Centre & School of Psychology and Social Work, Universiti Malaysia Sabah

We will come together to learn about the experiences of people with intellectual and developmental disabilities and their families throughout their lives. Our aim is to identify

how we can achieve improvements in our communities by focusing on the right of disabled people to make decisions for themselves; the right to be included in the community; the right of families to get the support they need; the right to make a living; the right to meaningful relationships and the right to be born. The conference theme is "Growing with Hope and Dignity."

Price: see the [Registration page](#)  
[Visit the website](#)

Contact: see the [Inquiries page](#)

### **7) Autism and Environment: What Do We Know?**

Saturday July 23, 2011

12:00 - 3:00 p.m. Eastern time

Sponsor: The Autism Society

What are the whole-body symptoms of autism? How can environmental changes make existing autism better? What do chemical exposures do to the developing brain? What are state-of-the-art treatments for autism symptoms? Four renowned autism experts discuss the rise in autism vis-a-vis environmental and chemical changes in the world and clinical steps used to treat autism now. Speakers will be Martha Herbert MD, PhD; Claudia Miller, MD, MS; Suruchi Chandra, MD; and Anju Usman, MD. These generous clinicians and researchers will share their expertise on neurodevelopment and autism on a Saturday to allow working parents and families to attend from the convenience of their own home computers.

Price: free

Contact: Donna Ferullo, 301-657-0881 x9022 or [dferullo@autism-society.org](mailto:dferullo@autism-society.org)

### **8) 6th International Conference on the Impact of Environmental Factors on Health**

Monday through Wednesday, July 25 - 27, 2011

Riga, Latvia

at the Reval Hotel Latvija

Sponsor: Wessex Institute of Technology and the Journal of Safety and Security Engineering

Health problems related to the environment have become a major source of concern all over the world. The health of the population depends upon good quality environmental factors including air, water, soil, food and many others. The aim of society is to establish measures that can eliminate or considerably reduce hazardous factors from the human environment to minimize the associated health risks. The ability to achieve these objectives is in great part dependent on the development of suitable experimental, modeling and interpretive techniques, which allow a balanced assessment of the risk involved as well as suggesting ways in which the situation can be improved. The interaction between environmental risk and health is often complex and can involve a variety of social, occupational and lifestyle factors. This emphasizes the importance of considering an interdisciplinary approach. The language of the conference will be English.

Price: unknown

[Visit the website](#)

Contact: Irene Moreno Millan, 44 (0) 238 029 3223 or [imoreno@wessex.ac.uk](mailto:imoreno@wessex.ac.uk)

## **News and Journal Articles**

### **[For Sen. Lautenberg, crusade to reform chemical regulations is personal.](#)**

*Tuesday, June 28, 2011*

You might say Sen. Frank Lautenberg wants to be the grandfather of chemical regulation. Like most grandfathers, Lautenberg is particularly concerned with children's health. His eyes light up when asked about how chemicals in the environment or in day-

to-day products may pose risks to children. Greenwire.

**[Study: BPA makes male mice less masculine.](#)**

*Tuesday, June 28, 2011*

Bisphenol A, a chemical used to produce baby bottles, cups and plastic packaging may cause male mice to act like females, a new study finds. The male mice also appeared to lose their ability to attract females. PBS NewsHour.

*[See a related article: [Teen mice exposed to low levels of BPA behave like opposite sex as adults, study finds](#) and another article about BPA: [Del. bill would ban BPA plastics](#)]*

**[Some say fluoride fights decay, others say it's a hazard in water.](#)**

*Sunday, June 26, 2011*

In a dramatic reversal of a public health initiative aimed at stopping tooth decay in 1951, city commissioners voted 6-0 last month to stop fluoridation. The action, which city officials say would save more than \$40,000 per year, comes as debate over fluoride's benefits versus its possible adverse effects has gained new attention. Detroit Free Press, Michigan.

**[Common drugs linked to cognitive impairment and possibly to increased risk of death, study suggests.](#)**

*Saturday, June 25, 2011*

A large, long-term study confirms that medications with anticholinergic activity, which include many drugs frequently taken by older adults, cause cognitive impairment. The research is also the first to identify a possible link between these drugs -- which include over-the-counter and prescription sleep aids and incontinence treatments -- and risk of death. ScienceDaily.

**[Does life online give you 'popcorn brain'?](#)**

*Friday, June 24, 2011*

The worry is that life online is giving us what researcher, David Levy, calls "popcorn brain" -- a brain so accustomed to the constant stimulation of electronic multitasking that we're unfit for life offline, where things pop at a much slower pace. CNN.

**[Soil, groundwater near old US bases contaminated.](#)**

*Thursday, June 23, 2011*

The soil and groundwater near bases which the US Forces Korea handed back to the Korean government in 2007 are contaminated by oil spills and hazardous heavy metals, according to a probe by the Environment Ministry. Seoul Chosun Ilbo, South Korea.

*[See a related article: [No trace of agent orange At US base in South Korea](#) and other articles about contaminated sites: [Anniversary of Cuyahoga fires igniting environmental movement](#); [Wavering on waste: Environmentalists question toxic site reuse](#); [RDX cleanup making progress](#); [Vietnam works to detect unexploded ordnance, first phase of Agent Orange cleanup with US](#) and [Human sewage pile, illegal dump top spots in Calif.](#) ['environmental justice' sightseeing tour](#)]*

**[House panel rejects move to regulate coal ash.](#)**

*Thursday, June 23, 2011*

In a win for the coal industry, a House committee approved a bill Tuesday that would prevent federal regulation of coal ash as hazardous waste. The legislation would place coal ash in the same category as metal scrap, waste water and household garbage, and would allow states to voluntarily regulate it. Gannett News Service.

*[See another article about coal ash: [Wells at Oologah power plant site show pollution, group says](#)]*

**[Study: Birth defect rates higher in mountaintop removal areas.](#)**

*Wednesday, June 22, 2011*

Researchers found "significantly higher" rates of birth defects in areas with mountaintop removal mines than in non-mining regions in central Appalachia, according to a study released Tuesday. Charleston Gazette, West Virginia.

*[See other articles about place-based exposures: [Childhood autism spikes in geek](#)]*



[heartlands and Pupils' health 'at risk' from London road pollution\]](#)

**[Estimating perchlorate exposure from food and tap water based on US biomonitoring and occurrence data.](#)**

*Wednesday, June 22, 2011*

We calculate that an average 66 kg pregnant woman consuming a 90th percentile food dose could also drink the 90th percentile of community water for pregnant women containing 15µg/l perchlorate without exceeding the 0.7µg/kg/day reference dose.

Journal of Exposure Science and Environmental Epidemiology.

[See another article about exposure measures: [Residential insecticide usage in northern California homes with young children](#)]

**[EPA extends public comment on mercury and air toxics standards.](#)**

*Wednesday, June 22, 2011*

In response to requests from members of Congress and to encourage additional public comment, EPA today extended the timeline for public input by 30 days on the proposed mercury and air toxics standards, an extension that will not alter the timeline for issuing the final standards in November 2011.

[See other articles about mercury: [House OKs bill setting up mercury exposure info program](#) and ['Old' GM to pay \\$2.8M to settle mercury claims in 12 states](#)]

**[Coffee component combined with caffeine counters Alzheimer's, improves memory in animal study.](#)**

*Tuesday, June 21, 2011*

A yet unidentified component of coffee interacts with the beverage's caffeine, which could be a surprising reason why daily coffee intake protects against Alzheimer's disease. Stone Hearth News.

[See another article about diet and nutrition: [Vitamin D supplements found to be safe for healthy pregnant women](#)]

**[Couch potatoes: Where the risks lie.](#)**

*Monday, June 20, 2011*

Several new studies finger television viewing as a potentially unhealthy pastime. Hardly sounds surprising, right? But what makes the recent spate of analyses different, researchers argue, is that they're finally homing in on consistent estimates of the magnitude of risks -- and hints at what underlies them. Science News.

**[The claim: A sunscreen chemical can have toxic side effects.](#)**

*Monday, June 20, 2011*

Sunscreen is supposed to protect skin. But some people suspect that a chemical in sunscreen called oxybenzone, absorbed through the skin, may be even more hazardous than the sun's rays. New York Times.

[See other articles about hazards in consumer products: [Dozens of personal care products mislabeled as 'organic,' lawsuit says](#) and [Children's clothes to be tested for DEHP](#)]

**[Lawsuit seeks to protect San Diego drinking water supply.](#)**

*Monday, June 20, 2011*

A proposed landfill near San Diego threatens a critical drinking water source, endangered species habitat, and sacred Native American lands, according to a lawsuit filed by the Natural Resources Defense Council, the Sierra Club, RiverWatch, and the Pala Band of Mission Indians. Environmental Protection.

[See other articles about water contamination: [Chemical seeps at site worry activists; Homeowners' wells tainted by banned insecticide; Federal agency begins survey about Lejeune water; Officials: Time to test local well water; Revitalization of urban waterways is focus of new federal partnership; Update on waters of the US draft guidance and Cotter Corp. has Colorado's OK to dump radioactive sludge into leaking pond](#)]

**[Developing a bidirectional academic-community partnership with an Appalachian American community for environmental health research and risk communication.](#)**

*Monday, June 20, 2011*

Community-based participatory research principles were a useful framework in building a strong academic-community partnership. Environmental Health Perspectives.

**[Arsenic toxicology: translating between experimental models and human pathology.](#)**

*Monday, June 20, 2011*

Translation to human populations requires more extensive profiling of human samples along with high quality dosimetry. Anchoring results by gene expression and epigenetic profiling has great promise for data unification. Environmental Health Perspectives.

**[Openness in participation, assessment, and policy making upon issues of environment and environmental health: a review of literature and recent project results.](#)**

*Monday, June 20, 2011*

A solid conceptual understanding of the interrelations between participation, assessment, and policy making is necessary in order to design and implement effective participatory practices. Environmental Health.

**[Toxic flame retardants -- new data, more warnings, take action.](#)**

*Thursday, June 16, 2011*

The thirty scientific papers presented in Boston last week suggest we are fools to wait another 30 years to take action in the face of mounting evidence of hazard from this highly toxic class of chemicals. Healthy Building News.

[See a related article: [Flame retardants in furniture foam: benefits and risks](#)]

**[Short-term and long-term health risks of nuclear-power-plant accidents.](#)**

*Thursday, June 16, 2011*

The purpose of this review is to put the emergency at the Japanese power plant, even as it is evolving, into the context of the extensive literature on nuclear-reactor accidents by analyzing the mechanisms and major short-term and long-term health risks of radiation exposure. New England Journal of Medicine.

See other articles about radiation hazards: [GAO: Leaks at aging nuke sites difficult to detect](#); [Fixing America's nuclear waste storage problem](#); [Fukushima meltdown mitigation aims to prevent radioactive flood](#); ['Safety myth' left Japan ripe for nuclear crisis](#); [Populations around US nuke plants soar](#); [Radioactive waste stored in Dallas and across the US at center of dump controversy](#) and [EPA halted extra testing for radiation from Japan weeks ago](#)]

**['Fracking' for natural gas continues to raise health concerns.](#)**

*Thursday, June 16, 2011*

Energy companies are increasingly scouring the US for natural gas deposits. As they do, one of the extraction methods they are using, known as fracking, is coming under sharp scrutiny for potential health consequences from the chemicals involved. PBS NewsHour.

[See related articles: [Air quality concerns threaten natural gas's image](#) and [EPA identifies case studies for hydraulic fracturing study](#)]

**[Childhood diseases return as parents refuse vaccines.](#)**

*Thursday, June 16, 2011*

For doctors and nurses caring for patients, the return of vaccine-preventable diseases such as measles -- a viral illness that once killed 3,000 to 5,000 Americans a year-- is both frightening and all too predictable. USA Today.

**[Top 5 ways to reduce toxins in homes.](#)**

*Thursday, June 16, 2011*

Canadian health and environmental experts have issued a list today of the best ways to reduce five common sources of toxins associated with child health risks. Health News Daily.

[See another article about reducing exposures in daily life: [Growing green kids](#)]



### [F.D.A. unveils new rules about sunscreen claims.](#)

Wednesday, June 15, 2011

After 33 years of consideration, the Food and Drug Administration took steps on Tuesday to sort out the confusing world of sunscreens, with new rules that specify which lotions provide the best protection against the sun and ending claims that they are truly waterproof. New York Times.

### [Prenatal pesticide exposure tied to birth size.](#)

Wednesday, June 15, 2011

Exposure to even moderate amounts of certain pesticides during pregnancy may affect infants' birth size, a new study suggests. Reuters.

[See other articles about pesticides: [Govt urged to review pesticide laws](#); [California's new pesticide plan sparks protest](#); [Pesticides could cause Parkinson's 'by stopping brain protein from cleaning up toxic molecules'](#) and [Latin American banana labourers file pesticide exposure claims](#)]

### [China downplays risk to children from lead poisoning: report.](#)

Wednesday, June 15, 2011

Chinese children suffering lead poisoning from polluting smelters and factories have been denied testing, effective treatment and even basic information by officials who downplayed health threats, a human rights advocacy group said on Wednesday. Reuters.

[See other articles and announcements about lead: [EPA: Lead levels too high in Pilsen air](#); [EPA urges caution on tornado renovation activities involving lead paint](#) and [State to test kids for high lead](#)]

### [House panel votes to scrap anti-toxic air program.](#)

Wednesday, June 15, 2011

A North Carolina House committee voted in a late-session surprise Tuesday to gut a state program intended to protect the public from toxic air pollution, a move urged by Duke Energy and other large industries. Charlotte Observer, North Carolina.

[See other articles about air quality: [Traffic-related air pollution and acute changes in heart rate variability and respiratory function in urban cyclists](#); [Bangalore breathing in toxic metals: Study](#); [China gasps in pursuit of electricity](#); [Debate swirls around research showing lung problems for returned troops](#); [Feds launch action plan to protect people and families from radon](#); [Five area casinos fail air quality test, health groups say](#); [EPA appears firm on limiting air toxics at coal power plants](#); [EPA announces timeline for reconsideration of air toxics standards for boilers and certain incinerators](#); [Smoke from wildfires in Southwest may be health hazard](#); [Asian air pollution not limited to urban areas](#); [California air board expands clean-fuel shipping zone](#); [Peat bog wildfire smoke exposure in rural North Carolina is associated with cardio-pulmonary emergency department visits assessed through syndromic surveillance](#); [Campaigners reveal schools whose children are at risk of asthma](#) and [EPA, Coast Guard announce agreement to enforce air pollution requirements for vessels operating in US waters](#)]

## Lessons Learned

### **Nuclear Weapons - Use and Testing: Was It Necessary?**

by Steven G. Gilbert, PhD, DABT

*"Today I can declare my hope and declare it from the bottom of my heart that we will eventually see the time when that number of nuclear weapons is down to zero and the world is a much better place."* - Colin Powell

*"I call upon the scientific community in our country, those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace."*

- Ronald Reagan

One of the gravest threats to future generations and life as we know it is nuclear weapons. The development of nuclear weapons was an unprecedented scientific

achievement that ultimately resulted in extensive human and environmental costs.

July and August are critical months in the history of the use and control of nuclear weapons. The first nuclear weapons test of an atomic bomb was code named Trinity and occurred on July 16, 1945, at the White Sands Proving Ground near Socorro, New Mexico. Toward the end of World War II, the US deployed two nuclear weapons on the people of Japan. On August 6, 1945, a uranium device code-named "Little Boy" was detonated over the city of Hiroshima, and on August 9, a plutonium device code-named "Fat Man" was exploded over Nagasaki. These nuclear explosions resulted in the deaths of approximately 200,000 Japanese people -- mostly civilians -- from acute injuries sustained from the explosions. Much of the cities were also destroyed. The ethics and necessity of using these weapons of mass destruction continues to be debated.



Trinity test July 16, 1945



US nuclear test April 18, 1953

Since the first three nuclear explosions, there have been more than 2,000 nuclear weapons tests worldwide by eight countries, with the majority by the US (1,054, many at the Nevada Test Site near Las Vegas) and the Soviet Union (715). Finally, recognizing the harm that radioactive fallout and contamination were causing, the Limited Test Ban Treaty was signed on August 5, 1963, to end the testing of nuclear weapons in the atmosphere or under water. The treaty permitted underground nuclear testing. Underground nuclear weapons testing stopped in the 1990s: in the Soviet Union in 1990, the United Kingdom in 1991, the United States in 1992, and both China and France in 1996. The Comprehensive Test Ban Treaty was signed in 1996 (which as of 2011 has not yet

entered into force).

Unfortunately, acquiring nuclear weapons or the use of nuclear power has remained the goal of many countries. In an effort to control the spread of nuclear technology and weapons, the Treaty on the Non-proliferation of Nuclear Weapons (NPT) was signed July 1, 1968. The NPT consists of three "pillars": non-proliferation, disarmament, and the right to peacefully use nuclear technology. The treaty came into force on March 5, 1970, and currently there are 189 states party to the treaty. Five countries are recognized as nuclear weapon states: the United States, Russia, the United Kingdom, France and China. In addition, there are India, Pakistan and North Korea which have openly tested and declared that they possess nuclear weapons, and Israel which has yet to acknowledge its nuclear weapons program. North Korea, after violating the treaty, withdrew from it in 2003.

Nuclear power facilities also represent a risk for radiation exposure as evident from Three Mile Island, Chernobyl, and now Fukushima, Japan. Once again we are confronted with the fact that children are not little adults and are more vulnerable to radiation exposure than adults. We have an ethical responsibility to ensure that our children can reach and maintain their full potential, free of the threat of nuclear weapons or radiation exposure.

Nuclear Non-Proliferation Treaty at Toxipedia: <http://toxipedia.org/x/hKRb>  
Washington Nuclear Museum and Education Center (WANMEC): [www.wanmec.org](http://www.wanmec.org)

### Looking back to go forward

Lessons Learned is a bulletin feature focusing on an historical event that provides an important lesson for ensuring a more sustainable and healthy environment. Please feel free to send suggestions to [Steve Gilbert](mailto:Steve.Gilbert).

Past Lessons Learned: <http://toxipedia.org/x/O6Jb>

The Collaborative on Health and the Environment offers this information as a service but does not endorse any of the events, articles or announcements.

Companion bulletins are available for different audiences:

- For those interested in general children's environmental health:  
[http://www.healthandenvironment.org/working\\_groups/childrens\\_health/bulletins](http://www.healthandenvironment.org/working_groups/childrens_health/bulletins)
- For those interested in environmental health in Washington State and the Pacific Northwest: <http://washington.chenw.org/bulletins.html>

While there is overlap with this bulletin, there are some events and announcements unique to those bulletins.

If you would like to join the Collaborative on Health and the Environment (CHE) and the LDDI Working Group, please complete the application on the CHE website: <http://www.healthandenvironment.org/application>. Joining CHE means receiving up to four email messages a month from the CHE National listserv. CHE costs nothing to join and the benefit is shared information and opportunities for further engagement, if you choose. Be sure to mark that you want to join the Learning and Developmental Disabilities Initiative Working Group at the bottom of the application.

Nancy Hepp  
**Collaborative on Health and the Environment**

[Join Our Mailing List!](#)