

Small Steps to Improve Children's Environmental Health in your Early Childhood Program

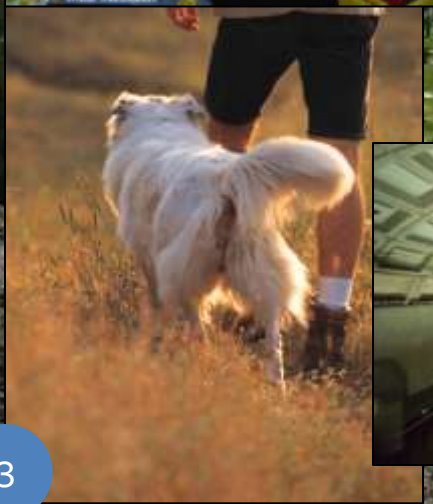
Common practices to keep your kids safer

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Learning Objectives

- Discover why children are more vulnerable to environmental exposures
- Identify environmental hazards in child care settings
- Learn how to reduce these hazards and achieve recognition for running an Eco-Healthy child care
- Learn how other child care centers have been “greened” and where to find resources for more information

This is what environment looks like



Other Toxic Chemicals

A child born in America today will grow up exposed to more chemicals than a child from any other generation in our history.

A 2005 study found 287 different chemicals in the cord blood of 10 newborn babies – chemicals from pesticides, fast food packaging, coal and gasoline emissions, and trash incineration.

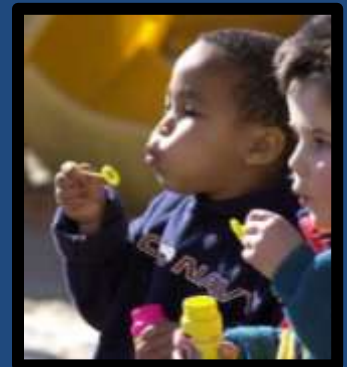
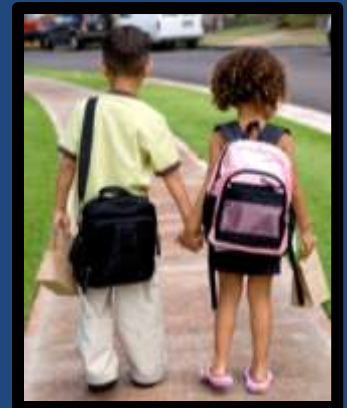
80,000 on the TSCA inventory

Lack of data and testing for new and existing chemicals

Restrictions on just 5 chemicals

Child Care in the United States

- People spend about 90% of their time indoors
- Indoor air pollution levels can be 2-5 times greater than outdoors
- Nearly 11 million children in child care
- No universal policies on environmental safety for child care facilities
- Opportunities for “greening” child cares and providing critical information to parents



You can make a difference!

- With so many children spending so much time in child care centers, you can impact the children you care for
- Good environmental health and high quality child care helps children reach their full potential



Where could you find these hazards?



Opportunities for Exposure:

Pests and Pesticides



Lead and Mercury



Mold and Moisture



Radon, CO, ETS



Chemicals, VOCs



Key Environmental Hazards

- Lead and other heavy metals
- Pests and pesticides
- Plastics
 - BPA
 - phthalates
- Building materials
 - Asbestos
 - Formaldehyde
 - Flame retardants
- Indoor air contaminants
 - Second-hand smoke
 - VOCs
 - Cleaning products
 - Asthma triggers

Children Are Not Little Adults



Body Differences

- Drink, eat, and breathe more than adults, as based on body weight
- Children are rapidly growing and developing
- Less developed natural defenses
- More skin per pound and less protective skin
- Chemicals in the womb and in breast milk



Behavioral Differences

- Natural explorers
 - Spend more time close or on the ground and floors
 - Spend more time outdoors than adults
- Mouthing behaviors
 - Place dirty fingers and objects in their mouth
 - Ingest dirt and dust, which may be contaminated



Health Disparities

All children are susceptible to negative outcomes as a result of environmental exposures, but they disproportionately affect minorities and children living below the poverty level



Asthma

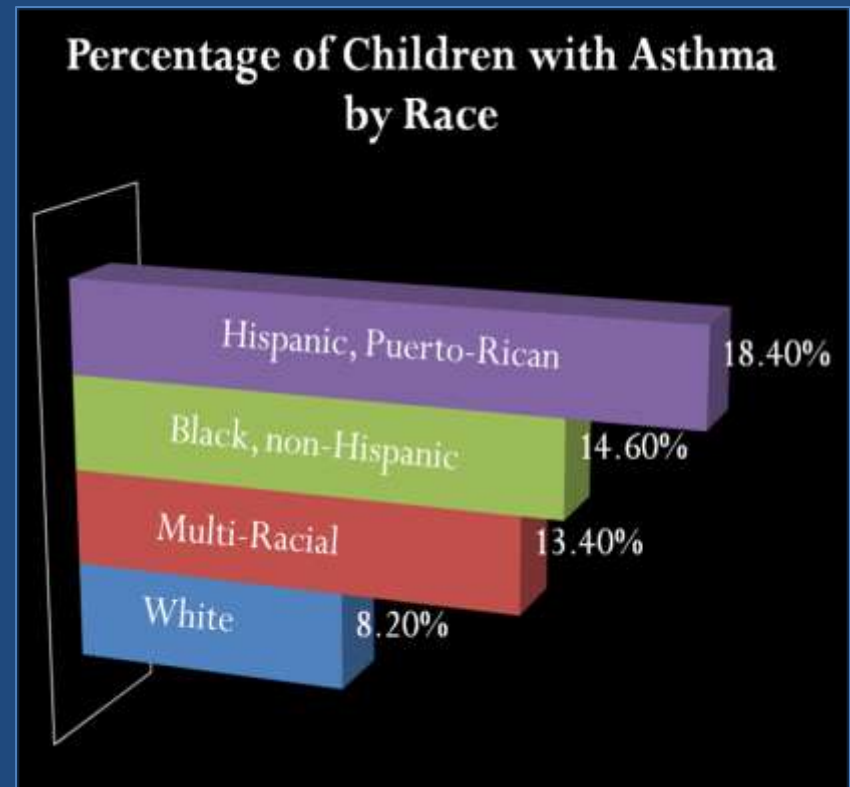
Brain Disorders

Cancer



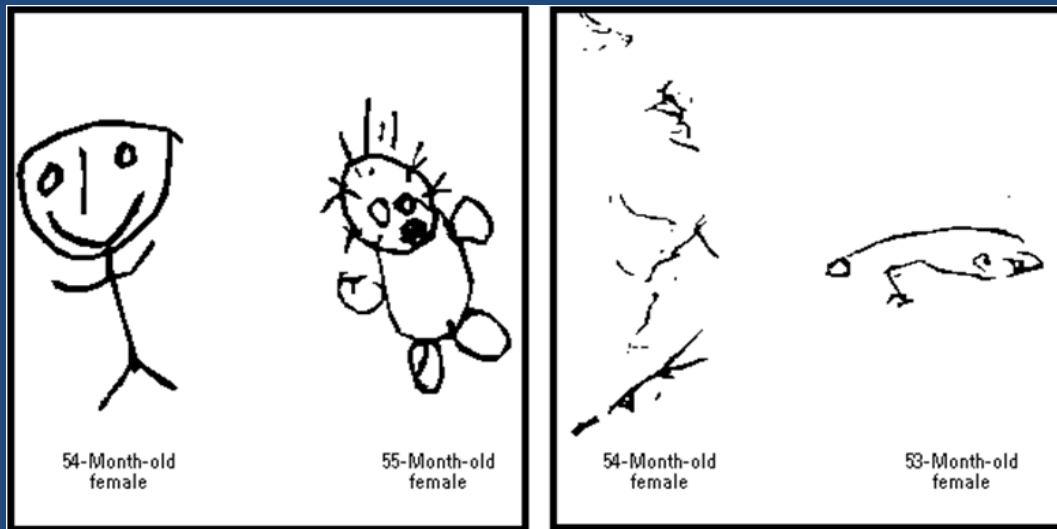
Asthma: Outcomes and Disparities

- 7 million kids suffer from asthma
- 2 million emergency room visits annually
- 13 million missed school days annually
- Black children are two times as likely to be hospitalized, four times as likely to die from asthma as white children



Brain Disorders: Outcomes and Disparities

- Exposure to certain chemicals can lead to ADHD, lowered IQ, autism spectrum disorders, behavioral disorders and/or developmental delays
- 12 million U.S. children, or 17%, have learning or behavioral disabilities
- Chemical exposures play a role in at least 1 in 4 cases of behavioral or developmental disorders
- ADHD is more common in children below the poverty level





Cancer

- Cancers: second cause of death among children (ages 1 -14 years of age)
- Approximately 10,400 U.S children under age 15 diagnosed with cancer in 2007
- Cancers may not appear until many years after the exposure(s) to cancer-causing chemicals have taken place



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- Good environmental health and high quality child care helps children reach their full potential



Resources: EPA and its Partners

- Office of Children's Health Protection [epa.gov/children]
- EPA Healthy Child care website [epa.gov/childcare]
- EPA subject matter experts (lead and other heavy metals, indoor air, hazardous chemicals, pests and pesticides, etc.)
- Regional children's health coordinators
- Training and Outreach
- PEHSUs [<http://www.aoec.org/pehsu.htm>]

Resources: epa.gov/childcare



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Healthy Child Care



Find information on how to identify potentially harmful environmental contaminants in child care settings and steps you can take to reduce or eliminate those hazards.

For Child Care Providers

- [Training and Curriculum Resources](#)
- [Environmental Health Issues in Child Care Settings](#)

For Government Agencies

- [Assessment and Recognition Programs](#)
- [Current Information from Federal, State, Tribal Agencies](#)

For Parents

- [Checklists and Tools](#)
- [Fact Sheets on Environmental Health Issues](#)

For Further Information

- [Key EPA Contacts](#)

Contact the Healthy Child Care Web editor to ask a question, provide feedback, suggest additional links, or report a problem.

Quiz Yourself!

1 2 3 4 5 6 7 8

Question 1

Lead based paint was used in how many homes before it was banned in 1978?

- A. 2 million
- B. 10 million
- C. 16 million
- D. 38 million

Related Topics

- [Children's Health Protection](#)
- [America's Children and the Environment](#)
- [Environmental Education](#)
- [Healthy School Environments](#)

Additional Child Care Related Information

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PEHSUs

- Co-funded by EPA and ATSDR
- Provide education and consulting services – information and advice on pediatric environmental health issues to clinicians, health care professionals and the community
- 10 PEHSUs provide nationwide coverage
- Fact sheets on “hot” issues and ad hoc answers to questions from the public
- <http://www.aoec.org/pehsu.htm>

From The Surgeon General's Call to Action To Promote Healthy Homes



A Healthy Home Checklist

Everyone can have a healthy home and accompanying illustrations show the steps to take in each room.

Bedrooms, Living Rooms, and Family Rooms

- Install smoke and carbon monoxide alarms
- Do not smoke or allow anyone else to smoke in the home.
- If your home was built before 1978:
 - Test your home for lead paint.
 - Fix peeling or chipping paint using lead-safe work practices.
 - Use safe work practices when painting, remodeling, and renovating to prevent spreading lead dust.

Basement, Crawl Space

- Set hot water heater at 120°
- Change furnace/AC filter regularly
- Have gas appliances and furnaces inspected to ensure they don't release extra carbon monoxide
- Make sure the clothes dryer vents to the outside
- Test for radon. If there's a high radon level, test again and eliminate the hazard.

Outer Parts of House and



Thank you!

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www.epa.gov/children

www.epa.gov/childcare

www.epa.gov/schools

www.epa.gov/region10/children