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 chemicals on the TSCA inventory
- Lack of data and testing for new and existing chemicals
- Restrictions on just 5 chemicals
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
- Mold and Moisture
- Lead and Mercury
- 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
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: 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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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]
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.
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](http://www.aoec.org/pehsu.htm)
From The Surgeon General’s Call to Action To Promote Healthy Homes

A Healthy Home Checklist

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.
  - Keep floors clear of electrical cords and clutter.

Basement, Crawl Space

- Set hot water heater at 120°F
- Change furnace/AC filter regularly
- Have gas appliances and furnaces checked to make sure they don’t release extra carbon monoxide
- Make sure the clothes dryer is vented to the outside
- Test for radon. If there’s a high level, eliminate the hazard.

Outer Parts of House and Grounds

- Maintain a safe distance between tree branches and power lines
- Keep yard clean of debris that could catch fire
- Inspect Lightning Protection System regularly
- Prevent pest infestations
- Keep garage doors closed at night to reduce the potential for pests
- Check and maintain gutters and downspouts to prevent water damage
- Replace or repair rotted wood trim
- Trim hedges and trees regularly
- Repair or replace peeling paint
- Install screens on windows
- Install storm windows and storm doors
- Install windows and doors that have good weather stripping
- Install windows and doors that have good insulation
- Install windows and doors that are designed to prevent air infiltration
- Install windows and doors that are designed to prevent water infiltration
- Install windows and doors that are designed to prevent pest infestations
- Install windows and doors that are designed to prevent mold growth
- Install windows and doors that are designed to prevent mildew growth
- Install windows and doors that are designed to prevent sunlight damage
- Install windows and doors that are designed to prevent water damage
- Install windows and doors that are designed to prevent ice damage
- Install windows and doors that are designed to prevent wind damage
- Install windows and doors that are designed to prevent snow damage
- Install windows and doors that are designed to prevent sand damage
- Install windows and doors that are designed to prevent dust damage
- Install windows and doors that are designed to prevent keypad damage
- Install windows and doors that are designed to prevent不断完善
Thank you!

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www.epa.gov/childcare
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www.epa.gov/region10/children