Environmental Health in Child Care

Environmental health concerns make good news headlines. However, attention-grabbing news often distorts the facts. Environmental risks exist. The challenge is to manage them so they do the least harm. Scientists can describe the risks and benefits associated with environmental hazards. Then individuals decide whether to accept the risks based on their own values and experience.

Children are especially vulnerable to environmental hazards for several reasons. They are unaware of environmental risks when they play. Their bodies are growing. This makes it easier for toxic substances to damage their developing body parts. Also, children take in more from the environment than adults relative to their body size. They breathe, eat and drink more per pound of body weight than adults. So adults must routinely protect children in their care from significant environmental risks.

Use reliable sources of information. The U.S. Environmental Protection Agency (EPA) has a wealth of information and links to other trustworthy sources of expertise. The EPA website on Children’s Health Protection is [http://yosemite.epa.gov/ochp/ochpweb.nsf/content/homepage.htm](http://yosemite.epa.gov/ochp/ochpweb.nsf/content/homepage.htm). Select the menu item on the left pane “Where children live, learn and play.” Then select “Being at school” and then the topics that interest you from those listed. This EPA website offers information on avoiding use of hazardous chemicals, indoor air quality, mold management, asbestos, a Head Start program to reduce exposure to tobacco smoke and problems with asthma, integrated pest management (IPM) to use the least toxic approach, drinking water in child care and schools (about lead and arsenic), and radon. Also, the EPA has a program called “Design for the Environment” to help consumers choose safer products. To learn more, go to [http://www.epa.gov/dfe/pubs/projects/formulat/label.htm](http://www.epa.gov/dfe/pubs/projects/formulat/label.htm).

The EPA website has many fact sheets and some short downloadable online videos for parents and teachers. One 3 minute 15 second online video highlights key environmental hazards in homes. To view and download it, go to [http://www.cdc.gov/CDCTV/HealthHome/](http://www.cdc.gov/CDCTV/HealthHome/). The video is called Health Begins at Home. Sharing this video might stimulate discussion among parents and staff about environmental safety in child care and at home. (continued on page 2)

Diaper/Underwear Changing

The first priority for diaper or underwear changing is to use the 1:1 time to foster a warm positive relationship with the child. Usually, it is best to clean a child’s bottom with children on their backs. In this position, the child looks up at the caregiver, an adjacent surface or at the ceiling. The declared purpose of the activity is to replace soiled diapers or underwear. Also, this is a time for caregivers to make eye contact and talk, or sing with the child.

To avoid contaminating the environment, the caregiver has to perform the changing steps correctly. Often, the caregiver must simultaneously remain aware of what is going on with the other children in the group while interacting with the child she is changing. (continued on page 2)
ECELS offers a self-learning module on Environmental Health in Child Care. Use this module to learn about common environmental health risks for children including lead, pesticides, air pollution, and drinking water pollution. This module includes strategies to address environmental health risks in early learning programs, information for families, and other resources. It is on the ECELS website at www.ecels-healthychildcarepa.org in the section called “Child Care Provider Training.”

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On the ECELS website, see the Fact Sheets on “Changing Soiled Underwear” and “Diapering—a Dozen Common Errors” to review correct procedures. To find these Fact Sheets, click on any section, then on Fact Sheets in the Handy Tools listed in the left pane. A well-designed changing station can make the competent caregiver’s job easier.

Height and location of changing surfaces
For children who can stand and climb, having steps or a ramp that can be sanitized is helpful. Except for very young infants, a caregiver risks back injury by lifting children up and down to use a diaper-changing table or bending to change a diaper on a surface that is lower than counter height. Changing on a surface used for any other purpose such as a floor or a bench is likely to spread germs.

Some caregivers want to change the diapers or underwear of older toddlers or preschoolers while the children are standing. This position avoids lifting, but it is awkward, even if the caregiver sits down in a chair and the child stands on a platform. Releasing a soiled diaper or underwear in the standing position significantly increases the risk that soiled surfaces will come in contact with the child’s lower legs, clothing and the floor as it is removed. Further, the child-standing position does not allow for necessary inspection and cleaning of the child’s skin, especially in the creases.

Avoid Sharing Germs
Use of a shared sink and changing areas by more than one group of children spreads infectious disease. This equipment should be entirely separated from food preparation surfaces and hand washing sinks used for other purposes. The flat changing surface must not be used as a landing space for clean articles or food.

The sink in the changing station should be no more than an arm’s length from the changing table. Paper towels, liquid soap, and hand lotion should be easily accessible for staff use. Hands-free faucets are best. Every changing area should have a hands-free operated, large-capacity lidded waste can to receive soiled disposable diapers, diaper wipes and diaper table paper.

Lighting, Visual Stimulation and Supervision
Since most children lie on their backs to be changed, the lighting should be arranged so it does not shine directly into their eyes. Provide some visual stimulation where the child looks during the change such as a mirror, or interesting pictures to talk about. If the changing table is against a wall, a mirror mounted on the wall opposite the caregiver provides an interesting opportunity to interact with the child. Also, it enables the caregiver to see what is going on behind her. The table should have raised edges to help keep the child from falling. Still, caregivers must keep a hand on the child at all times. Safety straps are not good because they trap soil, and are hard to sanitize.

Controlling Odors and Contamination
Controlling odors requires closely fitted lids on waste receptacles and ventilation of the area. Plastic bags are good to send soiled clothing home. Minimize handling of soiled disposable diapers. Put disposable diapers directly into the hands-free covered, plastic-lined trash container without putting them into individual plastic bags.

Assemble the amount of supplies that will be used up in the change. The main supply of plastic bags, wipes, diapers, clean clothing, diaper creams and any other clean objects should be where children or the caregiver will not contaminate them during the change. The table does need a clean space to put the child’s unsoiled outer clothing, shoes and socks so these do not get contaminated during the diaper change.

Surfaces
All surfaces in the changing area must be non-porous and smooth so they can be easily cleaned when soiled, and sanitized. Look closely for cracks in any part of the surface. For example, quilted designs and seamed edges on pads trap soil and germs.

Update of a 1999 article by S. Aronson in EXCHANGE Magazine
Pedestrian Safety  
2010

As the weather changes and more children are outside, think about protecting child pedestrians. In 2008, 2,000 children less than age 5 and 4,000 children between the ages of 5 to 9 were injured in traffic crashes. That year, 94 children less than age 5 and 78 children between the ages of 5 to 9 were killed. Approximately one third of pedestrian fatalities occurred between 3:00 pm and 7:00 pm. Most child pedestrian injuries happen in good weather, when children are playing outside.

Children do not process danger or consequences the same way an adult would. In addition, children move and react differently than adults. Here are some tips about young pedestrians:

- Children move quickly and can run into the street without warning.
- Children do not know safety rules and expect adults to watch out for them.
- Children are small and hard for drivers to see.
- Children cannot judge the speed or distance of vehicles moving toward them. They think cars can stop instantly.
- Children are not able to understand the danger and consequences of chasing a ball or toy into traffic.
- Children often act before thinking and may not do what parents or drivers expect.
- Children overestimate their physical abilities.

What can you do to teach children how to be safe when playing along roadways? First of all, supervise them at all times. Set clear limits about where the child is allowed to play. Explain to children the dangers of moving vehicles. Teach them to play in safe locations such as fenced yards and playgrounds, or if necessary on sidewalks. The PA Traffic Injury Prevention Program (TIPP) at the PA Chapter of the American Academy of Pediatrics urges practicing the following steps for crossing the street safely:

- Children should cross with an adult or older friend. Children need supervision around traffic, until at least ten years of age. When crossing these young children should always hold the hand of an adult.
- Cross at an intersection with a traffic signal, when possible.
- Use the crosswalk when crossing at the corner. Watch for turning vehicles.

⇒ For children who are too young to use left, right, left, you can say “Use your eyes like a flashlight to check for traffic. Start where the cars are coming on the side of the street closest to you.”

⇒ Make eye contact with drivers to make sure the drivers see you.

⇒ Wear reflective clothing/material and carry a flashlight at dawn and dusk, or any other low light conditions.

⇒ Be a good role model. Make sure that you are a safe pedestrian so that children who watch what you do will learn safe habits for crossing the street.

⇒ Teach children how to look. Make a pretend street with chairs or other furniture. Take a flashlight and have the children follow the light beam. Then ask them what they saw. Toys, pictures or other items could be placed in the area of the light beam as you follow a left, right left pattern with it. Ask the children what they saw when you showed them how to scan for traffic. Remind them that grownups need to cross with them because parked cars or other objects block the view of traffic. Also emphasize they must wait to let oncoming traffic pass, and then look left, look right, look left again (or scan in an arc) before crossing.

Playing outside in nice weather is a fun part of being a child. Make sure that safety is always a priority. For more information, call 1-800-CAR-BELT or go to http://www.pakidstravelsafe.org/.

Contributed by Kelly Whitaker, North Central Regional Coordinator, and Angela Osterhuber, Director of the PA Traffic Injury Prevention Program (TIPP)

Medication Administration News

About 13% of children have chronic medical conditions. The estimated total proportion of children with any type of special need (including medical, behavioral and learning problems) is around 18%. Many children with special needs must receive medication during the time they attend child care. Most group care programs will have some children who may need emergency medication while in care. Such children should not wait for a parent or Emergency Medical Service personnel to give their medications.

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The risk of medication administration errors is high in group care settings. Some states require non-family members who give medications to have specialized training. Pennsylvania has not taken this step. Many educators don’t realize they need special knowledge and skills to safely administer medication. Child Care Health Consultants across the nation and in Pennsylvania report that most programs do give medications, often improperly. ECELS and the Pennsylvania Association of Child Care Administrators (PACCA) have collaborated to use an electronic survey, asking early learning practitioners about their current practices for medication administration.

One concern about requiring education for giving medication in Pennsylvania is whether there are enough qualified instructors to teach this topic. ECELS has received a grant to implement a new national medication curriculum developed by the national American Academy of Pediatrics. ECELS will prepare instructors to teach medication administration across the state and then coordinate workshops taught by these instructors. The new national curriculum is called Medication Administration in Child Care. Instructors will find it at www.healthychildcare.org/HealthyFutures.html.

ECELS scheduled two train-the-trainer sessions for health professionals to learn to teach the new workshop. One was held in Harrisburg in the spring of 2010. The other will be held in the Pittsburgh area in the fall. Nurses, doctors and pharmacists who participate in these sessions will expand the pool of instructors across the state.

Contact ECELS to request a workshop on Safe Medication Administration by sending e-mail to ecels@paaap.org or calling 800-243-2357.

Safe Medication Administration Instructor-Pharmacist Rosemarie Halt

For more than a decade Rosemarie Halt, a pharmacist, has educated Early Childhood Practitioners about how to safely administer needed medications during the child’s time in care. She has been a registered pharmacist for over 20 years. For 12 years, she taught the ECELS workshop called Safe Medication Administration. She represented the Pennsylvania Pharmacist’s Association when ECELS first started teaching medication administration in child care.

Rosemarie’s involvement in community service is extensive. She worked with the Philadelphia Poison Control Center, the Philadelphia Medical Reserve Corps, the Delaware County’s Strategic National Stockpile Team, and the Working Group for a Delaware County Health Department.

When asked why she continues her work with ECELS, she responded, “One of the reasons I continue to teach safe medication administration was my experience with a Philadelphia child care center that had several chronically ill children, including some with asthma. I taught groups of caregivers and teachers to make sure they understood how to safely measure out medication and how to handle associated problems. After one workshop, a teacher came up and grabbed my hand and said that she realized that she had been giving a child his medication incorrectly for the last few weeks. She had been using an uncalibrated plastic spoon the child’s mom had given her. I asked her to show me the spoon. Then I used a syringe to show her the amount she was giving the child. It turned out to be half the labeled prescribed dose. We talked about the necessary steps to communicate with the parent and the prescribing doctor. She hugged me and said she learned so much and thanked God that she took the program that day.”

ECELS recognizes Rosemarie Halt for her many contributions to teaching PA early learning professionals. She teaches them how to minimize the risks involved with giving medications in group care settings.
WHO TO CONTACT TO REPORT A COMMUNICABLE DISEASE

Use the following list of the 10 local or County/Municipal Health Departments, or call the toll free number for the PA State Department of Health at (877) PA HEALTH. The call will be directed to the closest PA State Department of Health District Office; and then be re-routed to the appropriate County or State Health Department. The toll free number does not automatically route calls to the numbers for the municipal or county Health Departments that are listed below:

Allegheny County Health Department - (412) 578-8304
   Ask for an Infectious Disease nurse

Allentown Health Department - (610) 437-7742
   Ask for a Communicable Disease Investigator.

Bethlehem City Health Department - (610) 865-7087
   Ask for Susan Madeja RN
   After Hours - (610) 865-7187 (Police non emergency number)

Bucks County Health Department - (215) 345-3318
   Ask for a Communicable Disease nurse

Chester County Health Department - (610) 344-6452
   Ask for a Communicable Disease nurse

Erie County Department of Health - Fax: (814) 451-6767 or (814) 451-7850; Phone: (814) 451-6700
   Please fax information to the Communicable Disease nurse

Montgomery County Health Department - (610) 278-5117
   Ask for a Disease Intervention Specialist

Philadelphia Department of Public Health - (215) 685-6741
   Ask for the Division of Disease Control

Wilkes-Barre City Health Department - (570) 208-4268
   Ask for one of the nurses

York City Health Department - (717) 849-2296
   Ask for Terry Fitzgerald, RN

Every County or Local Health Department has a full listing of Pennsylvania’s required Reportable Diseases along with special a Reportable Disease form. Directors of Early Education and Child Care programs should contact their local Health Department to obtain this valuable material.
Integrated Pest Management (IPM)

Summer is a good time to focus on an integrated pest management program (IPM) to control bugs and vermin. A good IPM program eliminates unnecessary application of synthetic, volatile pesticides. The main elements of a good IPM program are: 1) monitor to establish whether there is a pest problem, 2) identify the causes of the pest problem, 3) address the cause by changing conditions to prevent problems, 4) use pest suppression techniques, if necessary, that are based on mechanical and biological controls and 5) only after non-toxic alternatives have been tried and exhausted, use the least toxic pesticide.

An IPM policy should include a written policy guide and a prohibited and acceptable materials list. The policy should include sealing up entry points for bugs and vermin. Use tightly closed containers. Clean up spills of the food that pests like. If more control is needed, choose the least toxic measures.

Environmental scientists recommend the following approaches: boric acid and disodium octoborate tetrahydrate, silica gels, diatomaceous earth, insect growth regulators, insect and rodent baits in tamper resistant containers or for crack and crevice placement only, microbe-based insecticides, botanical insecticides (not including synthetic pyrethroids) without toxic synergists, and biological (living) control agents. These suggestions and much more can be found on the reliable website of Beyond Pesticides, at www.beyondpesticides.org

New Book Review

Managing Infectious Diseases in Child Care and Schools, A Quick Reference Guide, 2nd edition, 2009 is an award-winning recently updated reference. It is available as an e-book as well as hard copy spiral bound book. The first chapters explain how infection occurs, how to minimize the risk of infection in group care settings, and what to do when infection occurs. More than half the book is made up of Quick Reference Sheets that are reproducible handouts for parents and teachers. To order in hard copy or as the lower-cost e-book, go to www.aap.org and then select ‘Bookstore’.

Melvin the Magnificent Molar by Dr. Laura Jana & Julia Cook and illustrated by Allison Valentine is an oral health book to read to preschool-age children. Melvin, a tooth, encourages children to brush their teeth. The book also explains what happens during a preventive dental health check-up. The paperback version of this book is available from Amazon and other outlets. The book costs $9.95 plus shipping.

Caring for Our Children, 3rd Edition is in press. Selected standards related to prevention of obesity and overweight are being released during the summer of 2010, before the expected early 2011 publication of the complete 3rd Edition. This early release is a response to an urgent federal request to help implement the efforts underway to fight the child obesity/overweight epidemic.

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