



A Union of Professionals

Creating a Safe and Healthful Early Childhood Environment



Creating a safe and healthful environment for early childhood learning centers is a universal goal. Providers and staff are acutely aware of the enormous responsibilities of caring for young children. Some hazards are not always immediately apparent but may have a significant impact on the health and well-being of children. For instance, children can be exposed to lead in drinking water or in old peeling paint, yet not exhibit signs of lead poisoning until they are much older. Also, traditional approaches for protecting children from hazards have ironically turned out to be harmful. Exposure to many commercial cleaning products and pesticides may cause serious illnesses and injuries. This fact sheet provides an overview of common environmental concerns in early childhood education settings.

Indoor Air Quality

Children and adults alike need good air quality to be productive and content. So what is good air quality and how do we achieve it in the early childhood environment? You can't see "good" air quality but you can sense it. In a building with good air quality, people will feel thermally comfortable (temperature and humidity) and relatively energetic throughout the day. An ideal space will have:

- Comfortable temperatures (between 75-78 degrees Fahrenheit)
- Relative humidity levels between 30-50%
- No water leaks from roofs and plumbing
- Heating, air conditioning and ventilation (HVAC) systems that are designed for the space and maintained according to the manufacturers' specifications
- Adequate amounts of fresh or outside air brought into the building (windows or mechanic ventilation systems) throughout the day.
- High efficiency (HEPA) filters used in HVAC systems or furnaces; filters changed frequently

By contrast a space with inadequate air quality may have high rates of occupant complaints associated with the building; common problems and associated health effects include:

Air quality problem	Health complaint
Temperatures too hot or too cold; stuffy air	Lethargy, irritability, difficulty concentrating, headaches, eye, nose, throat irritation
High humidity levels (over 50% RH); water intrusion; leaking plumbing; mold	Asthma, allergies
Dust mites (carpets, upholstered furniture)	Asthma, allergies
Mice, cock roaches	Asthma, allergies
Cleaning chemicals; pesticides	Potential asthma exacerbation, general symptoms – headache, eye, nose, throat irritation

Communicable Diseases

Anyone that cares for young children knows that communicable diseases are a constant challenge. They spread efficiently in a center and it is difficult to eliminate exposure to children and staff. There are a few strategies that may help lower the rate of transmission and infection including:

- Proper immunization of staff and students. Staff should be encouraged to update their immunizations according to the Centers for Disease Control and Prevention (CDC) recommendations. Influenza vaccination of staff and children may also cut down on seasonal illnesses
- Practice of universal precautions (see the AFT universal precautions fact sheet); frequent hand washing; use of good practices for disposing of diapers and cleaning of materials soiled with bodily fluids
- Purchasing toys (especially stuffed animals) that are easily cleaned or machine washable (this will cut down on potential transmission of “ring worm”, lice etc.)
- Discouraging the sharing of combs, hats, towels, clothing etc.
- Encouraging (or mandating) parents to keep children at home when they have a fever
- Encouraging staff with fever and respiratory symptoms to stay at home

The impact of some common childhood diseases may pose a unique risk to staff. For instance, pregnant women who have no immunity to Fifth’s disease (“slapped cheek disease caused by parvovirus 19) are at risk of miscarriage or the fetus may be at risk of a birth defect. Women, no matter what age, who lack immunity to parvovirus, have a high rate of an arthritic-like disease when exposed to Fifth’s disease. Any staff person who becomes pregnant can now ask physicians to check to see if they have immunity to Fifth’s disease in the event a case is identified in her facility.

Other communicable diseases such as chicken pox pose similar risks for staff with compromised immune systems or with no naturally acquired immunity.

Chemicals and Pesticides

There are innumerable hazards associated with the use of commercial cleaning chemicals, disinfectants and pesticides. Sometimes the risks of illnesses and injuries, when children and staff are exposed to chemicals, exceed the value of their use. Fortunately there are effective programs and products that can clean, disinfect and control pests without threatening harm to children and staff.

“Green” is the catchword used to describe the approach of selecting non-toxic or less-toxic cleaning and disinfectant products. The industry is in its infancy but there are specifications produced by states such as Massachusetts and Washington State and Santa Monica, California that can be used as a guide. The AFT Health and Safety program can provide more details about general cleaners, glass cleaners and bathroom cleaners that are truly “green”.

Integrated Pest Management (IPM) is an approach that may not entirely eliminate the use of pesticides but can significantly reduce the need for them. IPM involves controlling access to food and water to pests and keeping them out of a building. Proven methods include restricting food use and distribution to certain areas in a building; storing food in sealed plastic or glass containers; and cleaning up any food or beverage spills immediately. IPM also calls for keeping trash and garbage in sealed containers and sealing and caulking areas where pests can enter.

There are also IPM techniques to use for controlling pests on playground.

Many organizations such as the Oregon Environmental Council (<http://www.oeconline.org/>) have produced excellent guidelines for childcare facilities that can help providers and teachers improve the environmental quality in centers. For more information about any indoor environmental concern you can also contact the American Federation of Teachers Health and Safety Program at 800-238-1133 extension 5674, 5677 or 4365.