



Eco-Healthy Child Care®

Eco-Healthy Child Care® helps early childhood learning environments to be as healthy, safe and green as possible by reducing children's exposure to toxic chemicals.



Air Quality

Health Concerns

Air quality significantly impacts children's health. The health impacts associated with poor indoor and outdoor air include: decreased lung size and function, acute respiratory illnesses (such as asthma and bronchitis), emphysema, and even some types of cancer. Children are particularly vulnerable to air pollution because their lungs are still developing and they breathe more air per pound of body weight than adults.

Indoor air pollution levels are often 2-5 times greater than outdoor levels as a result of indoor contaminants, inadequate air filtration, and ventilation. Common indoor air pollutants are tobacco smoke (including e-cigarettes or "vaping"); mold and mildew; dust mites and cockroaches; household chemicals; fragrances; and pet dander, sweat, and urine. Poor indoor air quality (IAQ) can also harm academic performance and learning and increase child and staff absenteeism.

Outdoor air pollution comes from a variety of sources, including cars, buses, trucks, ships, trains, wildfires, industry, and activities such as smoking or campfires. Traffic pollutants include possible harmful chemicals in gasoline and diesel exhaust. Child care facilities may be exposed to excessive levels of diesel exhaust if they are located less than 500 feet from major roadways or close to heavy bus traffic. Children have higher exposures to air pollution because they spend, on average, more time outdoors than adults.

Fortunately, there are many ways to improve indoor air quality and protect children from harmful outdoor air pollutants.

Improve Your Indoor Air Quality:

Ventilate, ventilate, ventilate. Increase ventilation by opening screened windows and using fans.

Ensure that the HVAC (heating, ventilation and air

conditioning) system is properly maintained and meets legal standards. Change the filters in your HVAC system every 3 months. If window air conditioning units are used, check filters regularly and replace as needed.

Prevent mold and mildew. Reduce excess moisture and humidity. Fix leaks and clean spills promptly. Use a fan that vents to the outdoors in the kitchen, laundry room and bathroom(s) to reduce moisture and mildew. For major water leaks hire a professional company to ensure drying within 24-48 hours. Avoid wall to wall carpeting. If carpeting gets wet, and remains wet for longer than 48 hours, consider removing carpet completely. Mold can grow in the carpet, the layers of padding beneath the carpet, and on the flooring beneath. If removing carpet is not an option, deep steam clean regularly.

Do not use scented or unscented candles, artificial air fresheners or products with fragrances. These products contain multiple harmful chemicals which can include dangerous solvents. Choose "fragrance-free" products instead of "unscented" products, as the "unscented" label indicates that a fragrance was added to mask or cover-up any other chemical smells. Even naturally derived essential oils and incense can be harmful to human health and the environment causing respiratory distress and particle pollution.

Ensure all solvents, adhesives, paints, and art supplies are stored in a well-ventilated area. Products should be sealed tightly and stored in their original containers out of the reach of children. Dispose of anything that is not being used by taking it to a hazardous waste facility. To find one nearest you, visit www.search.earth911.com. Avoid products that emit strong chemical odors, such as plastic shower curtains.

Remove classroom pets. Unfortunately, pets' sweat, urine, dander, fur and feathers can trigger allergic and asthmatic reactions. While reptiles and amphibians may not

trigger these reactions, they carry bacteria called salmonella which can cause serious illness in children. If a pet cannot be removed from the facility, regular cleaning of the cage, thorough wet-dusting, mopping, and vacuuming with a HEPA filtered vacuum is essential.

Use low or no VOC (Volatile Organic Compounds) paint. When painting, allow 24 hours of ventilation before re-entering the area. Make sure painting happens when children are not present.

Prevent Carbon Monoxide (CO) exposure. Purchase and install a carbon monoxide detector. Gas stoves (stove top and ovens) can be a significant source of carbon monoxide. Ensure adequate ventilation when using gas stoves. Be sure your that your stove hood actually vents to the outdoors .

Never smoke, including e-cigarettes and/ or “vaping”, on child care premises, in your car or near children. If you do smoke, wear an outer garment that you remove upon entering the building. Wash hands immediately. Consider implementing a no smoking policy.

Protect Children from Outdoor Air Pollutants

Adopt an Anti-Idling policy. Car exhaust releases pollutants that are harmful to health (especially to children) and the environment. Pollution from idling vehicles can also enter a facility.

Know Your Air Quality. Check your local daily air quality index (AQI), at www.airnow.gov. On *Code Orange* days (unhealthy for sensitive populations such as children), minimize strenuous outdoor activities or keep children indoors. On days where the air quality index is worse than *Code Orange*, it is best to keep children inside. In some areas, you can sign up for electronic updates; visit www.enviroflash.info to find out more.

Here are other resources; download the related fact sheet from www.cehn.org/ehcc/factsheets.

- Use Integrated Pest Management (IPM) procedures to manage pests.** *EHCC's Pesticides fact sheet.*
- Use non-toxic art supplies.** *EHCC's Art Supplies fact sheet.*
- Test your facility for Radon.** *EHCC's Radon fact sheet.*
- Avoid purchasing furniture products that have pressed wood (plywood and particleboard), and avoid wall to wall carpet.** *EHCC's Furniture and Carpets fact sheet.*

Prevent exposure to damaged or degraded asbestos. *EHCC's Asbestos fact sheet.*

- Use fragrance-free, 3rd party certified, least-toxic cleaning, sanitizing and disinfectant products.** *EHCC's Household Chemicals fact sheet.*

Air Quality Resources

- Indoor air quality tools for schools:
www.epa.gov/iaq/schools
- Check the Air Quality Index for your community:
www.airnow.gov or www.enviroflash.info
- American Lung Association:
www.lungusa.org/healthy-air
- Eco-Healthy FAQs on Fragrances; and Pet Allergens:
www.cehn.org/ehcc/toxfaqs

FOR MORE INFORMATION

Call: 202-543-4033, ext. 13
Email: ehcc@cehn.org
Visit: www.cehn.org/ehcc

Eco-Healthy Child Care® (EHCC) is a science-based, award-winning national program that seeks to improve the environmental health of children by partnering with child care professionals to eliminate or reduce environmental health hazards found in child care facilities.

Eco-Healthy Child Care®

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