



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.

Furniture & Carpets

Health Concerns

Though wall-to-wall carpeting provides a soft surface to land on, it can trap pesticides, household cleaning residues, and lead contaminated dust and dirt. Carpets, and the glues that hold carpet in place, release chemicals such as VOCs. Children, especially younger children, spend most of their time near or on the ground and thus breathe in these chemicals, as well as the dirt, dust and mildew that accumulate in the carpet. Exposure to these substances can lead to lung complications and can act as a trigger for asthma attacks.

Additionally, household furnishings can contain toxic materials such as formaldehyde and flame retardants. Formaldehyde can be irritating to the eyes, skin, and mucous membranes. Off-gassing (the release of chemicals into the air) can cause headaches; nausea; burning of the eyes, nose, and throat; skin rashes; coughing; and chest tightness. Exposure to high levels of formaldehyde for an extended period of time (10-20 yrs) may cause cancer. Formaldehyde is a suspected neurological, reproductive, and liver toxin.

High levels of exposure to some common flame retardants, including polybrominated diphenyl ethers (PBDEs), can be toxic to the liver and thyroid. Infants and toddlers who are highly exposed to PBDEs may suffer damage to their developing nervous systems.

Formaldehyde

Formaldehyde is used to add permanent-press qualities to fabrics like draperies, as a component of glues in particle-board furniture and plywood flooring, and as a preservative in some paints and coating products. It is also produced by combustion (burning), such as from car exhaust, cigarette smoke, and wood-burning stoves. Formaldehyde is almost always found in indoor air, often at levels that are higher than safety levels. It is a flamma-

ble, colorless gas that has a pungent odor. Off-gassing is highest from furniture for the first five years after products with formaldehyde are installed. People are exposed by breathing air-containing formaldehyde.

Brominated Flame Retardants

PBDEs are chemicals that have been used for more than 30 years to slow the burning of products. New research indicates these flame retardants are toxic. They have been widely used in furniture foam, carpet padding, back coatings for draperies and upholstery, plastics, computers, televisions, building materials, and electrical appliances. Research indicates that more than 80% of PBDE exposure is from house dust. PBDEs persist in the environment and accumulate in living things—they have been found in human blood, breast milk, and umbilical cord blood.

Tips for Reducing Exposure to Formaldehyde and PBDEs in Furniture and Carpets:

1. Have children wash their hands frequently with soap and water.
2. Keep dust levels down by damp dusting and mopping.
3. Ventilate often, and especially while cleaning.
4. Avoid wall-to-wall carpets with carpet pads; choose hard flooring (wood, tile) instead.
5. Choose solid wood furniture. Avoid use of pressed wood products that are made with glues that contain urea-formaldehyde resins (UF).
6. Avoid products made with foam. Dispose of (or mend with duct tape) torn foam items (cushions, pillows, plush animals, naps mats).

7. Choose new items stuffed with polyester, down, wool, or cotton; these are unlikely to contain toxic fire retardants.
8. Vacuum when children are not present using a high efficiency particulate air (HEPA) filter vacuum cleaner.
9. Place a door mat at all outside entrances and encourage the wiping of shoes before entering, or have people remove shoes prior to going indoors.
10. Choose area rugs that are made with natural fibers (cotton, hemp, and wool) that are naturally fire-resistant and contain fewer chemicals.
11. Clean area rugs at least twice a year using fragrance-free, 3rd party certified (EPA's *Safer Choice*, *EcoLogo*, or *Green Seal*) biodegradable cleaners.

Green Cleaning Products:

Visit EPA's *SaferChoice* Program at www.epa.gov/saferchoice, *EcoLogo* at www.ecologo.org or *Green Seal* at www.greenseal.org to find cleaning products that are certified as biodegradable and environmentally healthy.

Recipes for Cleaning Furniture & Carpets:

Carpet Spot Remover

Blot immediately with water. Sprinkle with baking soda or cornstarch and let dry. Wash with club soda and vacuum.

** If a rug or carpet is contaminated by bodily fluids: Blot to remove the fluid as quickly as possible, then disinfect by spot-cleaning with a detergent-disinfectant (adapted from *Caring For Our Children*, 3rd edition).*

Wood Cleaner

¼ cup white vinegar
 ¼ cup water
 ½ tsp. liquid soap
 A few drops of olive oil

Combine the ingredients in a bowl and wash the area. The vinegar smell will dissipate.

All Purpose Cleaner

¼ cup white vinegar
 2tsp. baking soda
 3 ½ cups hot water
 ¼ cup liquid dish soap

Mix ingredients in a 32 oz. spray bottle, adding dish soap last. Wash surfaces. The smell of vinegar will dissipate.

Furniture & Carpet Resources

- EHCC FAQs: Flooring and Carpeting
www.cehn.org/ehcc/toxFAQs
- Formaldehyde
healthychild.org/issues/chemical-pop/formaldehyde/
- Choosing Safer Products
www.watoxics.org/healthy-homes-gardens-1
- Environmental Protection Agency (EPA): Formaldehyde
<https://www.epa.gov/formaldehyde>
- Certifiers of products and materials that have low chemical emissions: Greenguard Environmental Institute
www.greenguard.org/en/index.aspx
- Indoor Advantage by Scientific Certification Systems
www.scs-certified.com/gbc/indooradvantage.php

FOR MORE INFORMATION

Call: 202-543-4033, ext. 13
Email: info@ecohealthychildcare.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.

