

## Healthy Environments for Young Children: Chemicals and Toxins

Creating a healthy environment for young children is extremely important because daily activities as well as long-term issues can be affected by the environment. Some detrimental effects include early and late puberty and delayed growth and development. It is important that the child care environment is evaluated on a regular basis to determine if there are any harmful chemicals that might affect the wellness of each child served.

Common items used on a daily basis include pesticides, art supplies, and household chemicals. Each of these items are common, but can expose young children to toxins resulting in both acute and chronic outcomes.

### Pesticides

Pesticides are very important for maintaining a rodent free and insect free child care environment. However, human exposure to pesticides can be very dangerous and can lead to poisoning and problems such as developmental delays, learning disabilities, compromised immune systems, and cancer. Immediate reactions of children exposed to pesticides may present as headaches, nausea, dizziness, and tingling sensations.

Common household pesticides include the following.

- Roach sprays and baits
- Rat and rodent poisons
- Flea and tick shampoo
- Flying insect sprays



Select a licensed professional pest control operator for infestations and routine maintenance. Keep all pesticides and household chemicals in a secure location not accessible to young children and separate from food storage. Do not remove the chemical from its original container and do not reuse containers. Only use a pesticide when there is a minimum of 48 hours before children return to the facility. Check with your local governing agency to determine any other requirements for using pesticides safely.

As a means of preventing pests, limit or discard all cardboard boxes. Pests are attracted to the glue in cardboard boxes making them a great place for pests to hide. Use plastic containers to store items when possible. Select a trash can with a tight lid and empty it often, because trash is luxury food to pests. Avoid allowing water to sit in the sink for long periods because some pests can swim and live in water. Clear all clutter from storage, cabinets, and other areas. Seal all cracks and openings around windows, pipes, baseboards, and sinks. Pests can creep in the smallest opening causing an unhealthy and potentially dangerous environment for young children.



### Lead

Before 1978, lead paint was used in homes and businesses. It was also used in common items like pipes, pottery, and plastics because of its durability. However, by the mid-20th century, lead was found to be extremely dangerous to human health. One major way children can be exposed to lead is by eating peeling lead paint. Lead paint tastes sweet, often causing young children to eat a substantial amount.

Other ways children can be exposed to lead include the following.

- Old or imported handmade pottery
- Vinyl products
- Jewelry found in vending machines or costume jewelry
- Artificial turf/grass
- Toys painted before 1976
- Some toys made in other countries that do not have the same restrictions on using lead paint as the U.S.

Symptoms of lead poisoning may include aggressive behaviors, decrease or loss of previously developed skills, and reduced sensations. Exposure to lead can result in a multitude of illnesses. Affected children may experience decreased IQ, hearing problems, delayed growth, and developmental delays.

Most buildings and homes have been painted since 1978 with safe paint. If you suspect lead paint, contact your local or state health and safety-governing agency for assistance. They have the skills and knowledge to safely remove the lead paint and/or provide guidance for creating a lead-free environment.

## Art Supplies

Art supplies are very exciting for young children to use. Unfortunately, some art supplies, especially paint, can be toxic to young children. Some art supplies contain lead and asbestos. Children are exposed to the toxins in art supplies by inhaling, by ingesting, and through skin contact. Thus, it is necessary that all art supplies for children are certified as non-toxic.



November 2012, continued

## Household Chemicals

Household chemicals may be used to kill germs, clean, or polish. However, household chemicals can be extremely dangerous for young children because they may affect the ability to breathe and irritate the eyes and skin. Because children's bodies are developing, this makes children more vulnerable to both short term and long term complications from exposure.



When cleaning, use a safe cleaning product. A product that has a Green Seal or EcoLogo stamp has been researched and proven to be safe and effective. Avoid aerosol sprays; such as, air fresheners and carpet cleaners. The aerosol propellant can trigger allergies and asthma in young children. Chlorine bleach can be an extremely toxic household chemical. Not only does it burn the skin, but it can be deadly if ingested.

## Strategies for Success

- Always have the National Capital Poison Center telephone number posted and make sure that all staff members are aware of its location: 1-800-222-1222.
- Centers for Disease Control has a section on Environmental Health. <http://www.cdc.gov/Environmental/>
- Oregon Environmental Council has a variety of information available to assist in creating Eco-Healthy Child Care environments. <http://www.oeconline.org/our-work/healthier-lives>
- The Environmental Protection Agency has a variety of information to assist in keeping all environments healthy and safe for young children. <http://www.epa.gov/>

## Sources

Environmental Protection Agency. (2012). Learn the issues: pesticides, chemicals, and toxics. Retrieved from <http://www.epa.gov/gateway/learn/pestchemtox.html>.

Oregon Environmental Council. (n.d.). Eco-healthy child care: Lead. Retrieved from <http://www.epa.gov/gateway/learn/pestchemtox.html>

Oregon Environmental Council. (n.d.). Eco-healthy child care: Art supplies. Retrieved from <http://www.oeconline.org/resources/publications/factsheetarchive/Art%20supplies.pdf>

Oregon Environmental Council. (n.d.). Eco-healthy child care: Household chemicals. Retrieved from <http://www.oeconline.org/resources/publications/factsheetarchive/Household%20chemicals.pdf>

Oregon Environmental Council. (n.d.). Eco-healthy child care: Pesticides. Retrieved from <http://www.oeconline.org/resources/publications/factsheetarchive/Pesticides.pdf>

Oregon Environmental Council. (n.d.). Eco-healthy child care: Plastics and plastic toys. Retrieved from <http://www.oeconline.org/resources/publications/factsheetarchive/Plastics%20%20Plastic%20Toys.pdf>

United States Environmental Protection Agency. (n.d.) Preventing pests at home. Retrieved from [http://www.afhh.org/hps/hps\\_pesticides\\_EPA\\_IPM\\_Head\\_Start\\_Brochure.pdf](http://www.afhh.org/hps/hps_pesticides_EPA_IPM_Head_Start_Brochure.pdf)

# Nutrition Highlights

## **National Association for the Education of Young Children**

The National Association for the Education of Young Children (NAEYC) will host their Annual Conference and Expo on November 7-10, 2012 at the Georgia World Congress Center in Atlanta, GA. The conference's theme is "Developmentally Appropriate Practice in the 21st Century". For more information about registration, housing, and keynote speakers, follow the link: <http://www.naeyc.org/conference/>

## **NFSMI Trainings**

NFSMI has free child care training available. NFSMI will send a trainer to your location to train on a variety of topics. For more information regarding free trainings, follow the link: <http://www.nfsmi.org/Templates/TemplateDefault.aspx?q=cEIEPTU3>

NFSMI has a variety of online child care courses available. All online courses are free of charge and can be accessed at any time. Check out our online courses by following the link: <http://www.nfsmi.org/Templates/TemplateDefault.aspx?q=cEIEPTIzNg==>

## **National Message**

The USDA 2010 Dietary Guidelines Communications Message Calendar theme for September through December is *Foods to Increase*. During this time, the selected key message is "Make at least half your grains whole grains." Remember the theme and selected message when planning activities. To obtain more information, follow the link: <http://www.cnpp.usda.gov/Publications/MyPlate/CommunicationsMessageCalendar.pdf>

