Eco-Healthy Child Care®
www.cehn.org/ehcc

PESTICIDES

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.

OVERVIEW

Children may be exposed to pesticides by: playing on treated floors, lawns, and play structures; eating pesticide-treated foods; handling treated pets; or drinking contaminated water. When pesticides are applied indoors as a spray or aerosol, small droplets can end up on carpets, floors, toys and other surfaces. Children then come into contact with these droplets by crawling or mouthing objects. Pesticide sprays used outdoors can drift into child care facilities and homes through ambient air or ventilation systems. Sprayed pesticides can also seep into soil and groundwater. **Many pesticides can take a very long time to break down**. They can persist indoors for weeks on furniture, toys and other surfaces and for years in household dust. Pesticide levels in indoor air are often higher than those found in outdoor air.

WHAT IS A PESTICIDE?

A pesticide is any substance used inside or outside to prevent, control, repel, or kill insects, plants, fungi, and other pests. Therefore, bug spray, weed killer, insect repellents, flea and tick collars, and disinfectants are all forms of pesticides.

HEALTH CONCERNS

Children are at greater risk for health complications due to pesticide exposure because of their small size and developing nervous system. The health effects from exposure to pesticides are dependent upon the chemical class and formulation of each pesticide, the level and length of exposure, and the age of the person exposed. Pesticide poisoning incidents are most often associated with accidental ingestion of a pesticide or improper application. Acute poisoning by pesticides can cause breathing difficulty, chest tightness, vomiting, cramping, diarrhea, blurred vision, sweating, headaches, dizziness, and loss of concentration. **Even low levels of some pesticide exposure are a threat to young developing bodies.**

LONG-TERM EXPOSURES

Long-term exposure to pesticides may lead to **asthma, cancer, reproductive harm, kidney/liver damage, nerve tissue damage and neurobehavioral problems.** Even while in the womb, children are not protected from the impacts of toxic pesticides. Prenatal exposures can increase the likelihood of fetal death, the development of birth defects, as well as neurodevelopment and neurobehavioral issues.

INTEGRATED PEST MANAGEMENT (IPM)

Integrated pest management (IPM) is an effective, environmentally sensitive and affordable strategy to control pests and weeds. **IPM uses pest prevention practices like eliminating food and water sources and blocking entryways as ways to reduce chemical pesticide use.** IPM gives you the tools to create your own plan of action. As a last resort, call a pest management professional and have the least toxic pesticide applied.

BY USING IPM STRATEGIES YOU WILL BECOME A "PEST DETECTIVE" AND WILL LEARN TO:

- Identify the pest and determine if it is a genuine concern (i.e. dandelions can be tolerated or removed by hand, so no pesticide is needed).
- Monitor the pest's habits and take note of environmental factors that cause it to flourish (i.e. clutter, crumbs, leaky faucet).
- Assess and manage the pest problem, such as:
  - Stopping the pest from entering a building (i.e. sealing cracks).
  - Removing the pest's access to food, water, and shelter.

EXAMPLES OF IPM PRACTICES:

- Only allow children to eat food in the designated meal areas; quickly clean up food and drink spills, and wash dirty dishes right away.
- Limit use of food items for crafts and always store food items in tightly sealed glass or metal containers.
- Fix all leaks promptly and remove standing water.
- Seal or caulk cracks and holes.
- Remove clutter so pests have fewer places to hide.
- Keep trash in a lidded container that can completely close, take trash out daily, and place bins outside after closing.
- Aspire to limit the use of chemical pesticides and work with local institutions (https://www.ipmcenters.org/about/regional-ipm-centers/) or a local university's extension program) (https://nifa.usda.gov/land-grant-colleges-and-universities-partner-website-directory?state=All&type=Extension) to adopt an IPM policy).

IF YOU MUST USE CHEMICAL PESTICIDES

- When selecting a pest management professional, request verification of their IPM training and their state certification.
- Choose a pesticide of lowest toxicity; always be sure products are EPA registered.
- Do not use "bug bombs" or "foggers" such as flea bombs (products that release a spray, fume, smoke, or aerosol).
- Notify families and staff 48 hours in advance about the timing and location of applications and what product (s) will be used.
- Read and follow all labels and instructions on any pesticide products.
- At minimum, there should be a 12 hour window between the application of pesticides and the time children are in the area (see manufacturer's instructions to ensure 12 hours is enough time) and do not allow nap areas, play areas, or toys to be contaminated (pesticide residue can linger).
- Use of bait traps is preferable over spraying. Ensure baits/traps are not accessible by children.
- Keep all pesticides in their original containers, with their original cap securely in place and store pesticides out of children's reach. Place child-resistant latches on container lids and cabinet doors.
- If you believe a child has inhaled a pesticide, that it has gotten onto a child's skin, or that it was consumed, contact the **National Capital Poison Center at 1-800-222-1222.**

CHOOSING A PEST MANAGEMENT PROFESSIONAL:

- Identify the pest, conduct research about how to control it using the methods or resources shared within this resource.
- Ask friends and family to recommend a pest management professional.
- Make sure you contact several professionals to assess which of them uses least-toxic alternatives to control pests. For example, confirm that exclusion methods, baits, and traps are employed against cockroaches (rather than sprays) and that baits (rather than sprays) are used for ants.
- Ask the professional to inspect the site of concern. The professional may charge a fee to do this inspection; the fee should include a written diagnosis of the problem or an identification of the pest.
- Review the solutions. For example, a pest management professional who shares that they will spray every month is not a long-term solution.
- Ask what chemicals children and staff will be exposed to, weigh the risk, and ask about alternatives.
- Review the contract and make sure it includes the name of the associated company, length of the service, treatment plan, and price.

PESTICIDE AND IPM RESOURCES

- EPA's Healthy Child Care – IPM Training **www2.epa.gov/childcare/training-and-curriculum-resources-healthy-child-care-providers**
- EPA's IPM Regional Office Contacts **https://www.epa.gov/managing-pests-schools/forms/contact-us-about-managing-pests-school#tab-2**
- University of California at San Francisco's Early Care and Education IPM Toolkits for facility and home-based programs (English and Spanish) **https://cchp.ucsf.edu/ipm**
- For Certified PMPs, check out these sites:
  - Beyond Pesticides **https://www.beyondpesticides.org/resources/safety-source-on-pesticide-providers**
  - Green Shield Certified **www.greenshieldcertified.org**
  - QualityPro's GreenPro service **https://www.qualitypro.org/certified-services/greenpro/**
  - Eco-Wise **https://www.ecowisecertified.org/ecowise_find.html**

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