

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.



# **Noise Pollution**

#### **Health Concerns**

The World Health Organization (WHO) and the U.S. Environmental Protection Agency (EPA) recognize the harmful health effects of noise pollution. According to the Centers for Disease Control and Prevention, noise pollution is "an increasing public health problem" that can lead to a variety of adverse health effects, including hearing loss, stress, high blood pressure, interference with speech, headaches, disturbance of rest and sleep, productivity and mental health effects, and a general reduction in one's quality of life.

#### What is Noise Pollution?

Noise pollution is unpleasant noise created by people or machines that can be annoying, distracting, intrusive, and/or physically painful. Noise pollution can come from outdoor sources, such as road traffic, jet planes, garbage trucks, construction equipment, manufacturing processes, lawn mowers, leaf blowers, and indoor sources, including: boom boxes, heating and air conditioning units, and metal chairs scraping on floors.

# **Noise Pollution and the Developing Child**

• Children develop better concentration skills in a quiet environment.

- Children who are exposed to noise pollution while learning are more likely to experience reading delays.
- Children who suffer from noise pollution learn to tune out not only noise but also the teacher's voice, which can harm their reading and language skills.
- Children have more difficulty understanding spoken language and distinguishing the sounds of speech when learning in a noisy environment.
- Children who spend time in noisier areas have higher resting blood pressure and higher stress levels.

# **Take Charge!**

Consider the possible sources of noise pollution in and around your child care setting and identify effective ways to reduce harmful impacts:

- Close windows and doors to shut out noise from lawn mowers, leaf blowers, and garbage trucks. Open windows when noise ceases for good ventilation.
- Install noise absorbent materials on ceilings and walls – wall quilts and carpeting, cork board.

- Only play music intentionally as part of the curriculum. Never play music or a radio that is for background/white noise. Never use white noise machines. Allow children to nap in quiet – do not play music while children are sleeping.
- Fight the noise. Noise pollution is often an environmental justice issue. Work with neighbors, your city and/or licensing agency to request that noisy activities are adjusted to meet the needs of your program (i.e., loud construction should not be done while children are sleeping).
- Place noisy activities next to each other and away from "quiet areas" reserved for learning activities requiring concentration.
- Provide headphones for listening centers and monitor volume to ensure a lifetime of good hearing.

# **Examples of Decibel (dB) Readings**

Noise or sound is measured in decibels (dB). A person's hearing can be damaged if exposed to noise levels over 75 dB over a prolonged period of time.

#### **Painful**

120-140 dB = jackhammer, jet plane take-off, amplified rock music at 4-6 ft

# **Extremely Loud**

90 dB = lawnmower, shop tools, truck traffic, subway

## **Very Loud**

60-80 dB = dishwasher, alarm clock, busy street, vacuum cleaner, normal conversation

#### **Moderate**

40-50 dB = moderate rainfall, quiet room

#### **Faint**

30 dB = whisper, quiet library

# **Noise Pollution Resources**

- American Speech-Language-Hearing Association www.asha.org/
- Noise Pollution Clearinghouse www.nonoise.org/

Phone: 1-888-200-8332

- NoiseOff
  - www.noiseoff.org/
- World Health Organization: Guidelines for Community Noise
  - www.who.int/docstore/peh/noise/Comnoise-1.pdf
- How to test for noise levels in an empty classroom www.quietclassrooms.org/library/test.htm

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. Originally created by the Oregon Environmental Council in 2005, EHCC is now managed by Children's Environmental Health Network.

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