

Healthy Childcare Environments

This is a transcript of a podcast in the National Institute of Environmental Health Sciences' podcast series, *Environmental Health Chat*. See the [podcast page](#) for the audio version of this podcast and other resources.

Anne Frances Johnson: [music] Welcome to Environmental Health Chat, a podcast about how the environment affects our health, from the National Institute of Environmental Health Sciences Division of Extramural Research and Training. I'm your host Anne Johnson.

When you have children in your care, you spend a lot of time trying to keep them safe and healthy. [sounds of children laughing/playing] Whether it's your own child or you provide childcare for a living, you know that kids can get themselves into trouble fast. [sound of child crying] But there are also things that can harm children slowly—through repeated, low-level exposures that add up to an increased risk for health problems later in life.

I'm talking about environmental exposures, like air pollution, exposure to pesticides, and other contaminants.

A vast majority of American kids spend at least 20 hours a week in a daycare or other out-of-home care. So we're focusing today's podcast on environmental health in childcare facilities.

Our guest is Dr. Barbara Fiese, director of the Family Resiliency Center at the University of Illinois at Urbana-Champaign. She spoke with us about ways families and childcare providers can create healthy environments for kids—starting with why this matters so much.

Barbara Fiese: There are two primary reasons that we're concerned about children's exposures. One is that they're not just little adults. They are closer to a lot of environmental exposures, particularly infants and toddlers who are crawling along the ground and breathe in a lot of these exposures. And then their organs and their brains are developing at a very fast rate. And so what a lot of toxicologists and other scientists are finding is that there may be some vulnerable windows of development where if they are exposed to some of these toxins it can affect brain development and potentially some other parts of their bodies, so we're concerned that if they're exposed at early ages that it can affect their life later on.

Anne Frances Johnson: Here are the four most common exposures Barbara says are a concern in childcare facilities:

Number one: Plastic food containers. It's a good idea to use glass containers when possible, and avoid microwaving food in plastic.

Two: Cleaners and air fresheners. Bleach and other harsh chemicals have been associated with adverse health effects. Fragrances and air fresheners are best avoided.

Three: Pesticides. Although insects and other pests obviously create their own environmental health risks, it's important to use safe pest management practices to limit kids' exposures.

And number four: Air quality. You can get a lot of information about outdoor air quality from the U.S. Environmental Protection Agency. But there are also some issues with indoor air to be aware of. In addition to things like cleaners and air fresheners, some studies have found that infant playmats and mattress covers off-gas formaldehyde, but the health risks from this type of exposure are still unknown.

So, given all these risks, what's a parent to do?

Barbara Fiese: When you hear about all these exposures, of course, the first thing that happens is that people get panicked, and they're like, 'Oh my gosh, how am I going to control all of this?' And you always control all of the exposures. So you do want to see if there are policies in place that reduce exposures. I think you really want to focus on their cleaning practices, their pest management practices, and how they heat up food.

Anne Frances Johnson: And if your daycare doesn't already take steps to reduce environmental exposures, the good news is that there's a lot they can do easily, and cheaply. For example, homemade eco-friendly cleaning products can help reduce the need for bleach. For food storage, although buying glass containers costs money initially, in the long run it doesn't really cost more than using plastic. And eliminating fragrances and air fresheners can save money.

Based on her outreach work in Illinois, Barbara said childcare providers are ready and willing to do what it takes to reduce exposures in their facilities.

Barbara Fiese: What we've found is that once child care providers are given some basic information about exposures, they're very interested in trying to get this information out to their parents, to their families, and also taking action at a legislative and an administrative basis, because at the very heart of things, child care providers are there to protect children. So they are a wonderful constituency to work with.

Anne Frances Johnson: The rules and regulations pertaining to childcare facilities vary state by state. Rules relating to reducing environmental exposures often come from administrative and licensing policies, rather than actual regulations. In some areas, advocacy groups are working to update these policies to reflect the current state of the science.

Barbara Fiese: For example, in the state of Illinois, there is an administrative policy that requires child care providers not to allow glass baby bottles in a child care setting. And that is understandable from a safety perspective but it doesn't necessarily make sense from an environmental health perspective. So, some of these administrative policies can be changed without legislation, and it's possible for advocates who work in the child care world to work directly with the administrative groups that provide oversight in licensing and the enforcement of the administrative policies.

Anne Frances Johnson: Through their research and outreach, Barbara and her colleagues work to help states and childcare providers make informed decisions about these issues.

We hope this podcast has been a useful resource for you. Learn more about protecting kids' health from our other podcast episodes, including "Protecting Children from Contaminants at School," "All about Phthalates," and our latest episode "Household Chemicals."

Thanks to today's guest, Dr. Barbara Fiese of the University of Illinois at Urbana-Champaign.

You've been listening to Environmental Health Chat. I'm your host Anne Johnson, and our podcast is brought to you by the Division of Extramural Research and Training at NIEHS, part of the National Institutes of Health, an agency of the U.S. Department of Health and Human Services.

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