Creating Healthy Environments for Children:

Background Information

Our children live in a world vastly different from the one we grew up in. More than 80,000 chemicals, most of which did not exist fifty years ago, are registered for use in commerce in the United States, and approximately 700 new ones are introduced every year.[1] These chemicals are used in everyday items such as food, shampoo, toys, furniture, electronics, household cleaners, and lawn care products, to name just a few. The effects of most of these chemicals on human health are unknown.

Unfortunately, comprehensive pre-market safety testing is not required under any federal law for these chemicals. We are especially at risk of exposure to the 2800 chemicals produced in quantities greater than 1 million pounds per year. Yet, of these high-volume chemicals, only 43% have been tested for potential human toxicity, and only 7% have been studied for their possible effects on child development[2]. Even fewer have been tested for their health effects when they interact with one another, but that's how we're exposed to them[3].

What is this doing to our kids? For the most part, we don't really know. It's largely an unregulated experiment—and our children are the canaries in the coal mine.

Children are more vulnerable

Beginning *in utero,* babies and children are different than adults—they are often much more vulnerable to environmental toxins.

- Pound-for-pound, children breathe more air, drink more water, and eat more food than adults. For example, the air intake of a resting infant is twice that of an adult[4]. The Agency for Toxic Substances and Disease Registry reported that "children in the first six months of life drink seven times as much water per pound as average American adults. Children one through five years of age eat three to four (or more) times as much food per pound body weight as average American adults."[5]
- From birth through childhood, children differ from adults in their ability to absorb, metabolize, and excrete contaminants.[6]
- Children's bodies are rapidly growing and developing. The unique developmental stages experienced in childhood make children more vulnerable to harmful effects from exposures to certain hazards in the environment than adults.
- Children are more likely than adults to come in contact with many of the contaminants around us each day. Children play on the floor where allergens, such as dust, and heavier-than-air chemicals settle and collect. Also, young children put everything in their mouths, further exposing them in different ways than adults.

Chronic Diseases are on the Rise

More than 30 years of environmental health studies have led to a growing consensus that chemicals are playing a role in the incidence and prevalence of many diseases and disorders in

our country, including:

- Leukemia, brain cancer, and other childhood cancers, which have increased by more than 20% since 1975.[7]
- Breast cancer, which went up by 40% between 1973 and 1998.[8] While breast cancer rates have declined since 2003, a woman's lifetime risk of breast cancer is now one in eight, up from one in ten in 1973.[9]
- Asthma, which approximately doubled in prevalence between 1980 and 1995 and has stayed at the elevated rate.[10,11]
- Difficulty in conceiving and maintaining a pregnancy affected 40% more women in 2002 than in 1982. The incidence of reported difficulty has almost doubled in younger women, ages 18–25.[12,13,14]
- The birth defect resulting in undescended testes, which has increased 200% between 1970 and 1993.[15]
- Autism, the diagnosis of which has increased more than 10 times in the last 15 years.[16]

According to the U.S. Centers for Disease Control and Prevention (CDC), 133 million people in the U.S.—almost half of all Americans—are now living with these and other chronic diseases and conditions, which now account for 70% of deaths and 75% of U.S. health care costs.[17]

Estimates of the proportion of the disease burden that can be attributed to chemicals vary widely, ranging from 1% of all disease[18] to 5% of childhood cancer[19] to 10% of diabetes, Parkinson's disease, and neurodevelopmental deficits[20] to 30% of childhood asthma.[19]

Precautionary Parenting

Parents take steps each and every day to prevent harm to their children. We use car seats, child gates near stairs, bicycle helmets, electrical outlet covers—the list goes on and on. We don't know for sure that an accident would happen, but it's just common sense to be safe rather than sorry. Reducing environmental health risks is much the same. You shouldn't worry that a little exposure is going to permanently damage your child, but you *should* take precautions. Luckily, there are tons of simple, affordable actions you can take.

No one can do everything, but everyone can do something

Start out by choosing a few simple steps to take in your own home, and when they become habit, move on to a few more. Try not to get overwhelmed or neurotic, just take it day by day. Don't add stress to your already hectic life – we all know that stress is bad for our health, too. Also, remember that a healthy diet and regular exercise will help ensure a strong body that's better able to fight off the effects of environmental exposures. It's never too early, or too late, to start living healthier.

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