

Why must children be protected from chemical hazards?

Children are uniquely vulnerable to the impacts of harmful chemicals in their everyday environments. They are potentially exposed to a wide variety of hazardous chemicals everywhere they go including at home, in the car, at childcare and school, at work and in public places.

Hazardous chemicals can be found in the air children breathe, on surfaces they touch, things they put in their mouths, as well as in their food and water.

Why are children more vulnerable to chemical exposures?

There are many reasons why children are particularly susceptible to the hazardous chemicals found in and around the home.

Children are exposed to chemicals from the moment of conception because chemicals can cross the mother's placenta and reach the embryo and foetus during key developmental stages.

Some chemicals have been found to accumulate in breast milk, which is in turn passed onto the baby. Please note that breast is best for your baby despite these concerns.

- children's ability to detoxify chemicals is limited because their bodies and immune systems are still developing
- children's brains and other organs are under constant development and can be damaged or disrupted by chemical exposure
- children breathe faster and eat and drink more in proportion to their body weight which means they are exposed to proportionally more chemicals
- children's behaviour predisposes them to chemical exposure as they tend to put things in their mouths and spend more time in close contact with potentially contaminated surfaces such as carpets and dirt because they crawl and play on the floor
- unlike adults, children often don't realise they have come into contact with hazardous chemicals and don't take the necessary steps to wash remove themselves from it
- researchers are investigating the role that chemical exposures might play in a range of childhood illnesses such as Attention Deficit Disorder (ADD), hyper and hypo-activity, asthma, chronic fatigue syndrome, allergies and sensitivities and increasing rates of childhood cancers
- governments from around the world have agreed that addressing chemical threats to children's health should be an essential part of every country's public health and environmental agenda.

Useful resources:

Chemical Safety and Children's Health: Protecting the world's children from harmful chemical exposures is an extensive global guide to resources on children's health and chemicals, . The Intergovernmental Forum on Chemical Safety (IFCS), Children and Chemical Safety Working Group, October 2005. Download the PDF [Chemical safety and children's health](#)

The U.S. Environmental Protection Agency Toxicity and Exposure Assessment for Children's Health (TEACH) Database is a searchable database containing summaries of published, peer-reviewed scientific research articles describing developmental studies for the TEACH chemicals of concern. The TEACH Chemical Summaries provide an overview and summary of available information for each of the chemicals listed in TEACH. Search the TEACH database

The Center for Children's Health and the Environment of the Mount Sinai School of Medicine works to protect children against environmental threats to health. They carry out research into the health hazards of pesticides, persistent organic pollutants, heavy metals and air pollutants and are developing strategies to prevent learning disabilities, asthma, obesity and cancer.
www.childenvironment.org