

General Stats

- On average, children spend 85% of their time indoors; 70% at home; 15% at other indoor locations; 4% in enclosed transit; 1% in outdoor transit; 10% outdoors
- 73 million children under the age of 18 in the United States are at risk from indoor air pollution
- 14 million children living in high poverty areas in the United States are at risk from indoor air pollution
- 2.5 million children with chronic and/or high risk medical conditions in the United States are at high risk from indoor air pollution
- 6.8 million children with asthma in the United States are at risk from indoor air pollution
- Fetal and early childhood exposures to industrial chemicals in the environment can damage the developing brain and can lead to neurodevelopment disorders (NDDs)—autism, attention deficit disorder (ADHD), and mental retardation
 - Researchers have found that 201 commonly used industrial chemicals have the capacity to damage the human brain, and they concluded that chemical pollution may have harmed the brains of millions of children worldwide
www.hsph.harvard.edu/neurotoxicant/appendix.doc
- A typical classroom or home may have anywhere from 50 - 500 different airborne volatile organic compounds (VOCs) present
- Indoor air pollution experienced by some children has been shown to exceed acceptable levels for human carcinogens such as benzene and dichlorobenzene
- Health risks associated with poor indoor air quality include asthma, cancer, reproductive and developmental problems
- Indoor air is typically 2-5 times more polluted, and can be as much as 100 times more, than outside air in new or recently remodeled schools and homes
- VOCs can cause eye, nose and throat irritation; cough; headache; general flu-like illnesses; skin irritation; and some can cause cancer
- Numerous indoor contaminants are carcinogens (i.e. benzene, radon, certain pesticides, chlorinated solvents, and formaldehyde)
- Some common VOCs found in schools and homes
 - Toluene (cleaners, construction materials)
 - Formaldehyde (furniture, ceiling tile, wood shelving and cabinetry)
 - Acetone (markers, art supplies)
 - Acetaldehydes (plastics, paints)

- United States Environmental Protection Agency estimates that 50% of US schools have IAQ problems
- The National Research Council also noted that available research suggests an association between the condition of a school building and student achievement. For example, one study's results showed that increased ventilation rates had a significant impact on math and reading test scores. There was a 14.7 percent increase in math scores and a 13.7 percent increase in reading scores with improved ventilation
- The U.S. Surgeon General has determined that there is no risk-free level of exposure to environmental tobacco smoke (ETS), or secondhand smoke.
 - ETS contains more than 4,700 airborne substances, of which 243 are known carcinogens
 - Children exposed to ETS are more likely to develop lower respiratory tract infections, bronchitis, pneumonia, middle ear disease, sudden infant death syndrome and respiratory symptoms
 - According to the CDC, nearly 60% (22 million) of children ages 3 to 11 are exposed to secondhand smoke

Asthma and allergy stats

- Asthma is the most common chronic disorder in childhood, currently affecting an estimated 6.8 million children under 18 years (an average of 1 out of 13 children)
- More than 4 million children had an asthma attack or episode in 2006
- Asthma rates in children under the age of five increased more than 160% over a 14 year period
- In 2005, there were approximately 679,000 emergency room visits due to asthma in children under age 15
- Approximately 44% of all asthma hospitalizations are for children
- Asthma is the 3rd leading cause of hospitalization among children under the age of 15. Approximately 32.6 percent of all asthma hospital discharges in 2005 were those under 15, however only 27.8% of the U.S. population was less than 15 years old.
- Children exposed to high levels of VOCs were four times more likely to develop asthma than adults
- Secondhand smoke can cause serious harm to children. An estimated 400,000 to one million asthmatic children have their condition worsened by exposure to secondhand smoke
- Exposure to secondhand smoke can cause asthma in pre-school aged children



Children Health Statistics

- Asthma is the #1 cause of school absenteeism among children ages 5 to 17. It accounts for an annual loss of more than 14 million school days per year (approximately 8 days for each student with asthma) and more hospitalizations than any other childhood disease
- Estimates suggest that children with asthma spend nearly 8 million days per year restricted to bed
- Asthma is more common among boys than girls
- Asthma is more common among children (7 to 10%) than adults (3 to 5%)
- Every Day in America
 - 40,000 people miss school or work due to asthma
 - 30,000 people have an asthma attack
 - 5,000 people visit the emergency room due to asthma
 - 1,000 people are admitted to the hospital due to asthma