



# Childhood Cancer & the Environment

A project to raise awareness of environmental influences on childhood cancer



- **Cancer is among the leading causes of serious illness and death in children and teens in the U.S.**
- **Survival rates for childhood cancers are much higher** than in the past due to major advances in cancer treatment. But the rate of childhood cancers has been increasing over the past few decades.
- **Cases of childhood leukemia have increased in the past 30 years** and increases in Latino children are even higher.
- **The exact cause of many childhood cancers is unknown.** There is evidence linking exposures to environmental hazards, including tobacco smoke, pesticides, and solvents, to certain childhood cancers.
- **Families can lower risk** for childhood cancer and other diseases by preventing or minimizing exposure to environmental hazards when possible.



## Why are children at greater risk?

- **Pregnancy, childhood, and adolescence are vulnerable periods** because of rapid growth and development. Exposure to environmental hazards during these periods results in higher risk of health effects.
- **Children may be exposed to environmental hazards anywhere** - indoors (at home, school, childcare, etc.) and outdoors.
- **The negative health impacts of early exposures** to environmental hazards can continue throughout life.

For more information on the Childhood Cancer and the Environment program, visit the Western States PEHSU [website](#).



Scan the code to download a PDF version of this factsheet.

This factsheet was supported by cooperative agreement FAIN: NU61TS000296 from the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR). The U.S. Environmental Protection Agency (EPA) provided support through Inter-Agency Agreement DW-75-9587701 with CDC/ATSDR. The American Academy of Pediatrics supports the Pediatric Environmental Health Specialty Units as the National Program Office. The findings and conclusions presented have not been formally disseminated by CDC/ATSDR or EPA and should not be construed to represent any agency determination or policy. Use of trade names that may be mentioned is for identification only and does not imply endorsement by the CDC/ATSDR or EPA.

# Get the facts about childhood cancer

Minimizing children's exposure to environmental hazards can lower risk for childhood cancer and other diseases.



# Childhood Cancer & the Environment

A project to raise awareness of environmental influences on childhood cancer



# Get the facts about childhood cancer

Exposure to environmental hazards like these has been associated with an increased risk of developing certain childhood cancers.



## Air pollution

**Decrease outdoor air pollutant exposure.**

- Check the [Air Quality Index \(AQI\)](#) and limit outdoor activity when air quality is poor.
- Avoid contributing to poor air quality by limiting wood fires and backyard burning.
- Reduce pollution from vehicles by carpooling, using public transport, biking, or walking when possible.

**Decrease indoor air pollutant exposure.**

- Limit sources of indoor air pollution (i.e., smoke, cleaning products, air fresheners, candles, dust).
- Ventilate (open windows, turn on exhaust fans when cooking) and filter (HEPA filters, air purifiers) indoor air.
- Check the EPA [Care for Your Air](#) website for tips on improving indoor air quality.



## Radiation

**Decrease unnecessary radiation exposure.**

- Ask your child's healthcare provider about the risks and benefits of recommended medical imaging (X-ray, CT scan).
- Radon is an odorless, invisible radioactive gas naturally released from rocks, soil and water. It can get into homes and buildings through small cracks or holes in the foundation and collect indoors. Radon is the second leading cause of lung cancer in the U.S. Homes can be tested for radon - learn more [here](#).



## Tobacco smoke

**Reduce or eliminate tobacco smoke exposure (including e-cigarettes and other vaping devices).**

- Do not allow smoking inside buildings or in the car.
- Smoking cessation resources: Quitline (1-800-QUIT-NOW), [CDC website](#), [AAP Richmond Center](#).



## Pesticides

**Decrease pesticide exposure from the diet.**

- Wash and scrub produce with water, throw away the outer leaves of leafy vegetables where pesticide residues are highest, and trim the skin and fat from poultry, fish and meats where pesticides can collect.
- Purchase organic foods when possible, but not at the expense of a diet rich in a variety of fresh fruits and vegetables. Search the Environmental Working Group (EWG) [Shopper's Guide To Pesticides in Produce](#) tool to help make decisions about choosing organic produce.

**Decrease pesticide exposure in and around the home, school or daycare.**

- Use the least toxic options possible to control pests in and around buildings. Learn about "Integrated Pest Management" (IPM) [here](#).
- Leave shoes outside home to prevent tracking in pesticides and other contaminants on shoes.
- Wash hands with soap and water frequently, especially before eating.
- Read warnings on labels and always follow instructions if pesticides are used. If pesticides are being applied outdoors nearby, shut windows and doors to prevent it from drifting indoors.
- If hiring a professional pest control company, search for licensed companies that practice IPM and ask for the name(s), ingredient(s) and potential hazards of any products they will be using.

## Solvents/Volatile Organic Compounds (VOCs)

**Shop smart.**

- VOCs** are chemicals that are widely used as ingredients in household products.
- Look for these logos when buying household products.



- Choose "low-VOC" products, such as unscented products and water-based glues or paints.
- Store unused products away from the living space and keep products locked and/or out of reach of children. Safely dispose of any products that you are no longer using.
- Avoid dry-cleaning clothes when possible, or look for dry-cleaners that provide wet cleaning, or CO2 cleaning. Air out dry-cleaned clothes before storing or wearing.



**Let the fresh air in.**

- Increase ventilation (open windows, doors, use exhaust fans) inside when using solvents and VOCs (such as cleaning products or fresh paint), particularly when it's hot.
- Ventilate your home after installing new furniture or products that contain VOCs such as manufactured pressed wood products (ex. new composite wood flooring may contain formaldehyde). After installation, allow the space to sit unoccupied and ventilated as long as possible.



**Childhood Cancer & the Environment**

A project to raise awareness of environmental influences on childhood cancer

