Certified organic products whose manufacturers provide full disclosure of ingredients are good choices. Avoid antibacterial products, especially those containing the pesticide triclosan. Most pediatricians agree that washing with soap and warm water is just as effective as using an antibacterial product in preventing the spread of disease.

4. Household Cleaning Products – Many popular household cleaning and laundry products contain toxic chemicals that can affect your child’s health. Skin rashes, eye irritation, and hormonal disturbances have been linked to popular brands of kitchen, bathroom and laundry room products. Choose products that are labeled non-toxic, bio-based and unscented, or make your own from simple, safe ingredients like lemon juice, baking soda, white vinegar, and borax.

5. Air Fresheners and Candles – Artificially scented air fresheners and candles are made from a complex mixture of petroleum-based chemicals, including many that are classified as hazardous by the EPA. Along with scented cleaning products, they pollute indoor air and can leave a residue on surfaces throughout your house. Regular cleaning with unscented products and good air circulation is the best way to keep your house smelling fresh. Choosing 100% beeswax candles is a way to enjoy the atmosphere candles create without the chemical risks.

Why Children are at Special Risk

Children are uniquely vulnerable to toxic exposures due to a number of factors. Their immature organs and developing bodies make it more difficult for them to detoxify or eliminate certain toxins, and because of their size, they receive proportionally greater doses of chemical contaminants found in air, water and food. Even a small exposure occurring during a critical window of a child’s development could result in permanent adverse health outcomes.

Children are also at greater risk because of their play habits and typical hand-to-mouth behavior. They live in their environments in ways adults do not. For example, they play outdoors on the grass where pesticides may have been applied and inside on carpeting where pesticides and other indoor chemical contaminants accumulate.

Routes of Exposure

Inhalation – breathing in fumes or airborne contaminants.

Skin Absorption – touching contaminated surfaces or chemicals with hands or other exposed body surfaces, or applying personal care products.

Ingestion – accidentally swallowing harmful chemicals that may have contaminated hands or objects, or eating foods with pesticide residues.

What is causing this disturbing rise in the incidence of chronic childhood illnesses and disabilities? A growing body of scientific research suggests that exposure to common chemicals in our homes, schools and communities may play a significant role.

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1. Pesticides – Some of the most commonly used pesticide products are associated with both acute and chronic health problems in children, including skin rashes, asthma, poisoning symptoms, neurological problems and certain cancers. Pesticide products include no-pest strips, indoor pest control sprays, lawn chemicals and flea and tick products. If you have a pest problem, look for safe, non-toxic alternatives or choose a professional landscaper or exterminator that uses non-toxic methods.

2. Food – Whole, unprocessed foods are best for children, including a variety of fruits, vegetables, legumes, grains, plant proteins and protein-rich meat, poultry, fish and dairy. Produce with the lowest levels of pesticide residue include pineapples, avocados, kiwi, honeydew melon, watermelon, mangoes, sweet corn, onions, cabbage, carrots, asparagus, sweet potatoes and peas. Whenever you can, purchase certified organic produce, especially those fruits and vegetables that your child eats most often. Most conventional dairy, poultry and meat products contain residues of artificial hormones and antibiotics which may interfere with a child’s normal development and contribute to antibiotic resistance. Buy certified organic, grass-fed animal products whenever possible. Finally, avoid food that is packaged in plastic to avoid exposure to plasticizing chemicals and nanoplastic particles.

3. Personal Care Products – There are hundreds of chemicals in the products we use to soften, scent, powder and clean our children’s sensitive bodies, many of which are linked to health problems. Until we have adequate testing and regulation of these chemicals, you should always look for simple, organic, bio-based products with the fewest ingredients.
6. Carpentry – Most synthetic carpets, along with their padding and adhesives, contain toxic per- and polyfluoroalkyl substances (PFAS) and emit volatile organic compounds (VOCs), including formaldehyde, that can outgas for weeks or even months in your home. Keep windows open and do not allow children to sleep or play in newly carpeted rooms until the smell has completely disappeared. Better yet, choose safer choices for floor coverings, including organic wool and cotton carpeting or other natural floor surfaces, such as wood, bamboo, tile or cork.

7. Paints and Stains – Most brands of paints and stains contain volatile organic compounds (VOCs) that create toxic fumes that can outgas indoors for long periods of time. However, some brands now offer no-VOC and PFAS-free paints, stains and floor finishes in a full range of colors that are much safer. No matter what products you choose, it is still best to schedule projects during the warmer months when you can open windows to provide ventilation. For extra protection, do not allow children to sleep or play in newly painted rooms until the smell has completely disappeared. Your safest choices are milk paint and food-grade oils and finishes.

8. Plastics – Many popular toys and home products (including Barbie dolls, plastic food wrap and shower curtains) are made of a chlorinated plastic called polyvinyl chloride (PVC), bearing the #3 recycling code. PVC, the most toxic plastic from its production to disposal, contains chemicals that carry significant health risks when inhaled or handled and accidentally ingested. Choose non-plastic toys if possible, especially for babies. Silicone is the safest material for baby bottle nipples and teething. All plastics can potentially leach harmful chemicals and micro-and nanoplastics into food and beverages. Whenever you can, provide your own snacks, like popcorn, clemetine and carrot sticks, and package in parchment paper snack bags or small stainless lunch box containers. Plastic containers for cooking and storing food should be replaced with glass, stainless steel or lead-free ceramic. Do not microwave food or baby formula in plastic containers, as this increases the leaching of chemicals.

9. Art Materials – Oil paints, pastels, permanent or scented markers, rubber cement, spray adhesives and pottery or ceramic supplies are some examples of materials that may contain substances that pose a health risk to your child. When purchasing art materials for home use, choose only those labeled “non-toxic.” Make sure your child washes his or her hands after using any art materials.

10. Treated Wooden Playground Equipment and Outdoor Furniture – Treated Wooden Playground Equipment and Outdoor Furniture – Wood that has been treated with chromated copper arsenate (CCA) to protect it from rotting or insect damage is frequently used as construction material for playgrounds and outdoor furniture. Arsenic, a component of CCA, is a known human carcinogen, and can be absorbed through the skin or accidentally ingested when it is transferred to your child’s hands. Test kits are available or you can look for the telltale “greenish” color of CCA-treated wood for quick identification. The soil around treated wood structures may also be contaminated. Look for metal playgrounds or those made from untreated cedar.

11. Water – Virtually all water supplies today are vulnerable to contamination. If you are uncertain about the purity of your water, have it tested. Filtering your own water at home and transporting it in a reusable glass or stainless steel bottle is your best assurance of safety. Granulated carbon filters at the sink combined with a whole house filter are effective at removing most pollutants. Bottled water in plastic is not a good alternative as the purity of the water is uncertain and bottles themselves may leach harmful chemicals and tiny bits of plastic into the water. Even reverse osmosis systems may shed microplastics into the water.

12. Wireless Devices – According to manufacturers’ instructions and emerging scientific studies on the potential health impacts of wireless (radiofrequency) radiation, your child should never hold a cell phone directly against his or her head or carry in a pocket. Instruct your child to use the speaker setting or a corded headset whenever possible. Cordless headsets utilizing an air tube are considered the most protective. Please note that cordless phones carry the same risks as cell phones. If you have a wi-fi router in your home, turn it off when not in use or at night. To further limit exposure, switch laptops and tablets to airplane mode, which reduces the radiation. Hardwiring all electronic devices using an Ethernet connection is best.

13. Clothing – It’s important to look at labels when it comes to choosing clothing for your child. Recent attention has focused on fossil-fuel derived “plastic” clothes (including polyester, acrylic, nylon, rayon, spandex) because they are not very absorbent and don’t breathe like cotton or other natural fabrics. Some children also exhibit skin irritation, itching, excessive sweating and difficulty moving as synthetics can stick to the skin. Cotton is always your best choice for children, especially for sleepwear. You should also be wary of outdoor clothing that is labeled “water and stain resistant” as these fabrics contain PFAS, a class of harmful chemicals that can be absorbed through the skin or accidentally ingested. Very young children should never wear outdoor clothing that is treated with PFAS.

14. Synthetic Turf Fields – More and more schools and parks are installing artificial or synthetic turf fields, with the anticipation of year-round play and less maintenance. These fields can also become dangerously hot in warm weather, sometimes twice the temperature of the air, creating burns on exposed skin and through clothing or exterminator that uses non-toxic methods. Infill materials, usually made of ground up recycled tires contain many toxic chemicals that can outgas and be breathed in as dust during active play. The fields can also become dangerously hot in warm weather, sometimes twice the temperature of the air, creating burns on exposed skin and through shoes and life-threatening heat illnesses. Joint injuries are often more serious and exposure to PFAS in the plastic carpet and grass blades adds to the risk of toxic exposures.

For more information about these and other environmental exposures, please visit: www.grassrootsinfo.org