

PSR Pediatric Environmental Health Toolkit: Tools for Use in the Clinical Practice Setting



What is the Toolkit?



The **Physicians for Social Responsibility Pediatric Environmental Health Toolkit** is a clinical tool endorsed by the **American Academy of Pediatrics (AAP)** and based on the AAP Pediatric Environmental Health desk reference also known as the “Green Book.”

The Toolkit includes **reference** and **anticipatory guidance** materials for both providers and patients including desk and pocket references for providers, and “Rx for Prevention” slips, magnets, and posters for patients. The Toolkit makes it easy for providers to give information to patients on preventing exposures to toxic chemicals and other substances that may affect child health.

Toolkit Credentials

The Toolkit was developed by a team of pediatricians and peer reviewed by experts in the field of environmental health. The materials were pilot tested, with positive reviews, at 17 practices by 34 pediatric and family practice providers in Massachusetts and California. A secondary test coupled with CME training programs in 5 states - CA, MN, MA, OR and WA – was conducted during 2006 and 2007. Results were very positive. Respondents were asked to rate the Toolkit across several domains. About half gave an “excellent” rating for 3 of the 4 domains: for overall content, 53%; for design, 54%; and for ease of use with patients, 43%. Less gave an “excellent” rating for patient receptiveness (21%).

Provider Materials:

- Laminated **reference card** with brief summaries of major toxicants – their potential health effects, routes of exposure, and prevention strategies;
- **“Anticipatory guidance” card** keyed to developmental stages for use during well-child visits;
- **Key Concepts** brief on children’s environmental health.

The **Reference Card** was adapted from the Green Book. It allows providers to quickly reference environmental toxicants, health effects, routes of exposure, and exposure prevention strategies.

The **Anticipatory Guidance Pocket Card** fits in a large pocket for handy use during a well child visit. The topics on the pocket card are both developmentally appropriate and take advantage of “teachable moments.”

For example, at a newborn visit, the provider will naturally discuss infant feeding. Breastfeeding has been found to mitigate negative effects of prenatal toxic exposure, suggesting that breastfeeding is the best choice for mother and baby. Exchanging mercury thermometers for safer digital ones is another easy step that a provider can mention at an early visit. These flexible guidance points provide clinicians with an age appropriate menu of choices to discuss during routine visits.

Topic	Guidance
Prenatal: Diet/Water	Discuss risks and the risks of unadvised intake of alcohol, when relevant, and recreational substances. Avoid eating fish high in mercury or PCBs/dioxins. Know water source. If public supply read Community Consumer Confidence Report. If well water, test for arsenic, nitrate, coliforms, and other contaminants depending on local surface and ground water concerns. Know lead status of home. Remediation may require exposure to lead dust and soot.
Home: Occupants/children? Infant feeding?	Know the chemicals you are exposed to at work or doing hobbies. Encourage breastfeeding. Review formula preparation – if concerned about lead in tap water, run cold water for 1-2 minutes before formula prep. Test well water. Avoid polycarbonate bottles, which may leach plasticizers. Choose colored or opaque plastic bottles made from safer plastics such as polyethylene or polypropylene, or tempered glass baby bottles that do not break as easily as regular glass ones.
Mercury exposure	Exchange mercury thermometers for digital at town recycling center or call local health department for disposal information. If breastfeeding, avoid fish high in mercury (see mercury section of Reference Card).
2 weeks: Car seat/bike	Car seat installation. Buckle/restraint and yearly professional harness maintenance.
Fire safety: Fire drills and fire extinguishers (on pet)	Smoke alarm (check batteries). Avoid use of pesticides whenever possible. If unavoidable, use baits/traps instead of sprays/dust. Store and dispose of safely. Check indoor radon in fall. See our HomeCheck program. (See AAP's Pediatric Environmental Health Handbook for guidance).
1-2 mos: Indoor air pollutants	Test for radon. If radon or high radon (pU), avoid basement sleep and/or areas – if high, consider remediation. Call 1-800-555-RAZON. Always wash or bag parent water keels, wet/dry vac, clean gutters, and dust under away from kids. Avoid carpet, pesticides, household cleaners that contain bleach or ammonia, products with solvents (paints, paint strippers).
4-6 mos: Lead exposure	Review all possible sources of lead – paint chips/dust in home/day care settings both before 1978, compromised walls, lead based water pipes, lead based solder. Homes with possible lead hazard should be inspected and repaired by a trained expert. Teach children's hands to remove lead dust and other contaminants. Remove shoes/clothing during before entering home – launder work clothing separately. Take to specific centers.
Home parents' occupations/hobbies	Check car alternator – avoid products with lead and coolants, ammonia, chlorine (never combine). Do not use bleach, call poison control center (800) 222-1232. Cover electrical sockets.
5-6 mos: Home/childproofing safety measures	Child use – to minimize exposure, use protective clothing, hats, sunscreen (SPF 15) higher. Cover electrical sockets.
Sun exposure	Child use – to minimize exposure, use protective clothing, hats, sunscreen (SPF 15) higher. Protective residues on food. Wash, peel, bathe/vegetables, bag organic if possible.

Topic	Guidance
Birth: Infant feeding	Encourage breastfeeding. Review formula preparation – if concerned about lead in tap water, run cold water for 1-2 minutes before formula prep. Test well water. Avoid polycarbonate bottles, which may leach plasticizers. Choose colored or opaque plastic bottles made from safer plastics that do not break as easily as regular glass ones.
Mercury exposure	Exchange mercury thermometer for digital at town recycling center or call local health department for disposal information. If breastfeeding, avoid fish high in mercury (see mercury section of Reference Card).

Key Concepts in Pediatric Environmental Health provides additional background on a number of topics including the unique vulnerabilities of children, higher risk communities, “Built Environment” and “Food Environment,” Right-to-Know issues and much more.

Patient Materials:

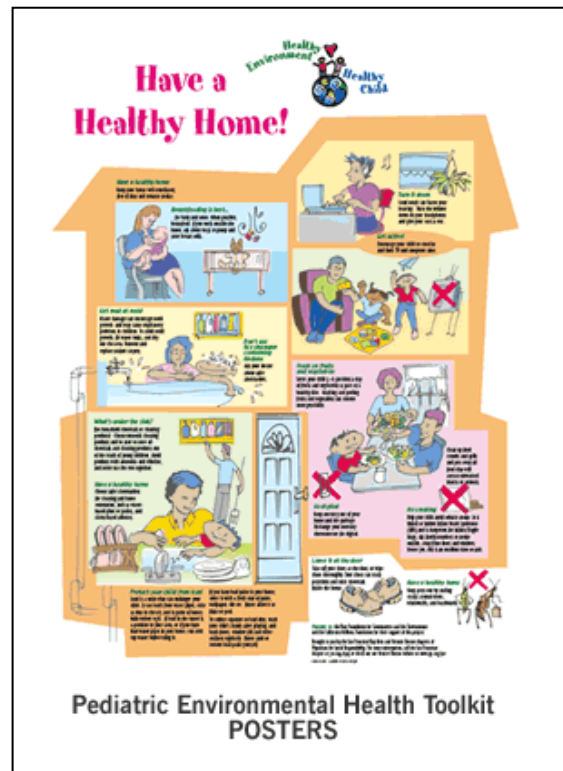
Note: Rx slips and posters are English on one side and Spanish on the other. Magnets are available in English and Spanish.

Rx for Prevention “prescription” slips are keyed to 4 developmental stages: Birth-1 year, 1-4 years, school age, and teens. Each “Rx” (there are multiple slips for each age group) contains two to four high priority “tips on prevention” for parents, such as how to avoid mercury in fish, protection from solvents, reducing use of pesticides, eliminating toxic cleaners, etc. The provider hands the slip to a family as if prescribing a medication.



Magnets with “Tips for Prevention” – include six different magnets with brief prevention tips. Patients can use the magnets to post the “Prescriptions” on the refrigerator.

Posters - Two colorful posters, *Have a Healthy Home*, and *Play Safe*, with prevention tips from the Toolkit, are available to display in office and patient waiting rooms.



Ordering the Toolkit
 Complete Toolkits and Patient Materials can be ordered through our website at www.psr.org click on Tools for Clinicians and use our online order form.
 A Toolkit Training Program complete with case studies is also available to download.
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