

# The Toxic Environment: The Role of Primary Care

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## Resources

Carbon Monoxide:

- Carbon monoxide alarms
  - In the Maine/ NH/ VT region of the American Red Cross the Sound the Alarm national program that provides free smoke alarms has been expanded to provide free CO alarms due to local fund raising. Call 1-800-464-6692
  - CO alarms when out of the home Jenkins Foundation Travel Safe CO Factsheet: <u>https://thejenkinsfoundation.com/hotel-coincidents/</u>
- Office educational materials/posters CDC Carbon Monoxide Factsheets (multiple languages available for general CO factsheet, info about boats and CO):
  - o <u>https://www.cdc.gov/co/factsheets.htm</u>

## Radon:

- CDC Communication Materials:
   <a href="https://www.cdc.gov/radon/communications/index.htm">https://www.cdc.gov/radon/communications/index.htm</a>
- Testing information
  - o New Hampshire: <u>https://www.dhhs.nh.gov/programs-</u> services/environmental-health-and-you/radon
  - Maine: <u>https://www.maine.gov/dhhs/mecdc/environmental-health/rad/radon/rntesting.htm</u>
  - Vermont: <u>https://www.healthvermont.gov/environment/home/radon</u>





Carbon monoide (CD) is an adortes, sciolines gas that kills ethods eterrarg, it claims the hear of hundred of project entry and an inness toxication nore it. Many household terms including gas, and adknuming fumates, ponsible generators, and charoleg pility ponytoon this poisson gas. Following these important steps can keep your family safe.

 Install battery-operated or battery back-up CO detectors near every silenging area in your home.
 Check CO detectors regularly to be sure they are functioning properly.
 OIL & GAS FURNACES

PORTABLE GENERATORS

Never use a penetistic inside your forme or parade, even if doors and



Arsenic:

- Arsenic and You (created by the Dartmouth Superfund Research Program): <u>https://sites.dartmouth.edu/arsenicandyou/</u>
- US Environmental Protection Agency Region 1 (New England): https://www3.epa.gov/region1/eco/drinkwater/contacts.html
- State agency websites and information
  - New Hampshire: https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/ard-ehp-1.pdf
  - Maine: https://www.maine.gov/dhhs/mecdc/public-health-systems/health-and-environmental-testing/arsenic.htm
  - o Vermont: https://www.healthvermont.gov/environment/chemicals/arsenic

Per- and Polyfluoroalkyl Substances

- State agency websites and information
  - New Hampshire Department of Environmental Services PFAS Response: <u>https://www.pfas.des.nh.gov/</u>
  - Maine Department of Environmental Protection PFAS: <u>https://www.maine.gov/dep/spills/topics/pfas/</u>
  - Vermont Department of Environmental Conservation PFAS: <u>https://dec.vermont.gov/pfas</u>

Ber- and Polyfluoroalkyl Substances (PFAS): Guidance for New Hampshire Clinicians									
	Introduction								
	The first later is interedist to provide information to clinicians to help address patient concerns. The FFAS family of clientician can committee ally water and oil across the United States (U.S.), and have been found at elevated concentrations in certain areas in New Yampahire (NN), including the format Pases A for State and specific boxes in isolation: The Varian Disease Control and Prevention (CDC)'s Agency for Tax's Substances and Disease Registry (CASDRC) sincila address, now your know includies mit Agency and Disease Registry (CASDRC) sincila address, now your know includies mit Agency and Disease Registry collable. Underso to this information will be made when guidance changes or new data is available.								
	Clinicians should review ATSDR's clinical guidance to determine how to address health concerns in a person who has an identified PLAS exposure. <b>ATSDR is currently reviewing and updating</b> <b>this guidance</b> based on the July 2022 National Academies of Sciences, Engineering, and Medicine (NASEM) report, Guidance on PAS Exposure, Testing and Clinical Follow Up.								
	ATSDR asked NASEM to form a committee to advise on PFAS testing and clinical care for caterial sequence to PFAS. Based on their review of epidemiological studies that have evaluated modernia evidence for a connection between PFAS sequence and a number of health configure or biomarkers. However, because of uncertainty about how PFAS exposure translates to individual health with, the NASEM committee recommended providers offer and ideaut the individual health dicklosing architecture statistical sequences of health configure and committee dicklosing and the and benefits of certain medical secreting practices with patients exposed to PFAS, through a process of harder decision making.								

- General Information
  - Agency for Toxic Substances Disease Registry (ATSDR/CDC) PFAS and your health: <u>https://www.atsdr.cdc.gov/pfas/index.html</u>
  - PFAS in New Hampshire: What you need to know (factsheet): <u>https://www.pfas.des.nh.gov/sites/g/files/ehbemt586/files/inline-documents/2022-09/pfas-in-nh.pdf</u>
  - 0
- Information for Clinicians
  - New Hampshire: <u>https://www.dhhs.nh.gov/sites/g/files/ehbemt476/files/inline-documents/sonh/medical-provider-pfas-factsheet-final\_2.pdf</u> (soon to be updated)
  - PFAS-Research, Education, and Action for Community Health (REACH) Information for patients and guidance for clinicians: <u>https://pfas-exchange.org/wp-content/uploads/PFAS-REACH-Medical-screening-guidance\_PFAS-impacted-communities.pdf</u>
  - National Academies of Science Engineering and Medicine (NASEM) Guidance on PFAS Testing and Health Outcomes: <u>https://www.nationalacademies.org/our-work/guidance-on-pfas-testing-and-health-outcomes</u>
  - Agency for Toxic Substances Disease Registry (ATSDR/CDC): <u>PFAS Information for Clinicians</u> <u>ATSDR (cdc.gov)</u> (recently updated – 1/18/2024)
  - o ATSDR Community Stress Resource Center: <u>https://www.atsdr.cdc.gov/stress/index.html</u>

## Private Drinking Water

• New Hampshire Be Well Informed Guide: <u>https://www4.des.state.nh.us/DWITool/Welcome.aspx</u>

- Maine Well Water Safety: <u>https://www.maine.gov/dhhs/mecdc/environmental-health/eohp/wells/mewellwater.htm</u>
- Vermont Private Drinking Water: <u>https://www.healthvermont.gov/environment/drinking-water/private-drinking-water</u>
- WellOwner.org is a website produced by the National Groundwater Association (NGWA), a non-profit that provides resources on private well issues and maintenance: <u>https://wellowner.org/resources/</u>
- US Environmental Protection Agency Region 1 (New England): https://www3.epa.gov/region1/eco/drinkwater/contacts.html

Additional Environmental Health Education and Resources:

- The New Hampshire APPLETREE (Agency for Toxic Substance and Disease Registry's (ATSDR's) Partnership to Promote Local Efforts to Reduce Environmental Exposures) Program gives partners the resources to build their capacity to assess and respond to site-specific issues. Several online tools and trainings are available: <u>https://www.des.nh.gov/home-and-recreation/your-health-andenvironment/new-hampshire-appletree</u>
- The Pediatric Environmental Health Specialty Units (PEHSUs) are a national network of experts in the prevention, diagnosis, management, and treatment of health issues that arise from environmental exposures from preconception through adolescence. The Region 1 PEHSU covers northern New England: <a href="https://www.pehsu.net/index.html">https://www.pehsu.net/index.html</a>
- Huffling Prenatal Environmental Exposure Assessment Survey (Appended)

## Environmental Exposure Assessment

The growing fetus can be particularly sensitive to many of the chemicals a woman is exposed to in her daily life. However, there are many ways that a woman who is pregnant, or thinking of becoming pregnant, can reduce her risk of exposures to these chemicals. This assessment will help you identify some of these risks and give you suggestions on how you can minimize your exposure. If you have specific questions or would like more information put a check at the "?" box and discuss this assessment with your health care provider.

#### Name: \_\_\_\_\_

Date: \_\_\_\_\_

	Question	Yes	No	?	Why do we ask this question?	Steps to Reduce Risks
<b>B</b>	Was your house/apartment built before 1978? Has your home been tested for lead?				Buildings built before 1978 may contain lead paint. Lead can cause damage to the brain & neurological system. Babies & children are especially sensitive to these effects.	<ul> <li>If your home was built before 1978 it should be tested for lead.</li> <li>Maintain your home to prevent paint from chipping or peeling. Chipping paint may release lead into the air.</li> </ul>
A MAN	Does your home have a smoke detector? Does your home have a carbon monoxide detector?				Carbon monoxide is an odorless and colorless gas that is harmful to human health. Having working smoke and carbon monoxide detectors in your home can help save lives.	<ul> <li>Smoke detectors should be on all floors &amp; in bedrooms.</li> <li>There should be a carbon monoxide detector on all levels in home with a combustion-heating source (uses a flame to produce heat) or a garage.</li> </ul>
	Has your home been tested for radon?				Radon is a cancer-causing gas & is the second leading cause of lung cancer.	• All homes should be tested for radon. It's easy & inexpensive.
	Does your home water come from a well? Do you live in an older home or building?				Well water should be tested routinely for contaminants. Pipes in some older homes may contain lead.	<ul> <li>Have your well water tested.</li> <li>Run the tap for at least 60 seconds to flush out sitting water and always start with cold water for cooking.</li> <li>Use a home water filter that removes lead.</li> </ul>
	Do you use pesticides (chemicals used to kill insects, rodents, weeds): In your home? In your yard? On your pets? This includes flea collars, dips, once-a-month products At your workplace? If yes, what:				Many chemicals in pesticides are suspected of being harmful to the fetus. They may also cause health problems in infants, children, and even adults. There are alternatives to using pesticides, such as Integrated Pest Management (IPM), which is being used in many workplaces. This method of pest control works to reduce pests through a variety of methods so that fewer pesticides need to be used.	<ul> <li>Eliminate items that attract pests. Keep surfaces clean of food residues, keep food in containers or in the fridge, &amp; keep trash contained.</li> <li>Use less toxic methods of pest control such as sticky traps &amp; boric acid.</li> <li>Take off you shoes when you enter the house to avoid tracking in pesticides, lead, and other toxins through the house.</li> </ul>
5	Do you smoke (cigarettes, cigars, pot, other substances)? Is smoking allowed in your home, car, or workplace?				Smoke contains chemicals that can be harmful to the growing fetus. Some of these can make the baby grow too slowly, develop asthma, or have learning problems after birth. Infants & children are also very sensitive to these chemicals.	<ul> <li>Make your home and car smoke free.</li> <li>Do not allow family, visitors, or childcare providers to smoke in your home or car.</li> <li>If you smell smoke it means you're breathing in smoke.</li> </ul>

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	Is there a mercury thermometer in your home?		Mercury exposure during pregnancy can cause	• Use only non-mercury thermometers.
$\mathcal{N}$	Do you use traditional or cultural remedies that		problems with how the fetus brain and	• Do not use mercury-containing remedies.
$\simeq$	contain mercury or mercurio as an ingredient?		nervous system develops.	• CFLs contain a small amount of mercury.
	Do you use compact fluorescent light (CFL)			Do not throw mercury-containing products
Ŭ	hulbs? These are energy efficient hulbs used in			in the trash. Contact your local trash
	place of standard light bulbs			collector for instructions on safe disposal.
	Do you come in contact with chemicals at		Some chemicals require special handling or	Practice safe handling techniques if using
	bowe or where you work such as alonging		some chemicals require special handling of	• I factice sale handling techniques if using
	nome of where you work such as cleaning		Dre de sta de sta le ser stre pregnant.	chemicals in the workplace and discuss with
	supplies, medications, of other chemicals:		as an ingredient may contain chemicals that have been linked with negative health effects, such as cancer & infertility.	<ul> <li>• Use natural or green cleaners if possible and wear gloves when cleaning to avoid getting</li> </ul>
A A A A A A A A A A A A A A A A A A A	If yes, what:			
5793	Do you use air fresheners, plug-ins, or incense?			
7,15	Do you use strong smelling/fragrant personal			
	care products, such as perfume, deodorant, nail			cleaners on your skin.
	polishes?			• Minimize use of air fresheners and incense.
				• Decrease the number of personal care
				products you use. Avoid strong smelling
				personal care products & purchase
				fragrance-free if possible.
	Do you eat fish?		Fish is a great food to eat while pregnant. However, some fish contain higher levels of	• Most fish contain some mercury. Usually, the larger the fish the more mercury they
	If yes, how often:			
	What kind(s):		mercury and need to be avoided by pregnant	contain. Fish with low levels of mercury
			women, toddlers, and children. Do not eat	include shrimp, pollock, tilapia, & salmon.
			shark, swordfish, king mackerel, or tilefish as	• Avoid albacore tuna while pregnant & only
			they have high levels of mercury.	eat 1-2 cans of chunk light tuna per week.
	Do you eat fresh fruits & vegetables?		Fresh fruits & vegetables are an important part	Try to buy organic: apples, bell peppers, celery, spinach, peaches, nectarines, kale, grapes, potatoes, cherries, blueberries & strawberries.
	If yes, how often:		of a healthy diet. Produce grown organically is	
	Do you eat locally grown or organic produce?		grown without the use of pesticides. Locally	
	If yes, how often:		grown produce may be grown with fewer pesticides even if it is not labeled organic.	
	Do you use water bottles or baby bottles made		Polycarbonate plastic and many food can	• Avoid using polycarbonate plastic and look
	out polycarbonate plastic (a hard & clear plastic		liners contain bisphenol A (BPA), a chemical	for plastics labeled BPA-free
	or labeled #7)?		that may interfere with how hormones work in	Choose fresh or frozen products instead of
1020	Do you est canned foods soups or baby		the body. Avoid using these plastics & if	choose fresh of hozen products histead of
3	formula?		needed, purchase plastics labeled BPA-free	instead of liquid
	Do you microwave your food in plastic?		Microwaving in plastic containers may cause	Miserene in alassen some is if a seitht
	Do you microwave your rood in plastic.		chemicals in the plastic to go into the food	• Microwave in glass of ceramic if possible.
	Are you planning on doing any repoyations		The dust from paint sheet rock and other	• Let someone else do the renovations & stay
	including painting in your home while you are		huilding materials can contain lead and other	away until the rooms are well contileted
	neuronic panting, in your nome wille you are		toving that can be inhaled	• Change large VOC and dusts if any 11
	pregnant:		Some home improvement products contain	• Choose low-vOC products if possible.
🔄 🕹 📢			chemicals called volatile organic compourds	
			(VOC) which can cause breaching with	
			(VOC), which can cause breathing problems.	