



How to Purchase a Healthy Home

Table

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Pollutant	Health Effects	Sources	Detection	Solutions
Lead	Slow mental development, learning & behavioral problems, damage to nervous & reproductive systems, high blood pressure, harm to fetus	Drinking water, lead-based paint, residue from leaded gasoline, folk medicines, dirt	Tests available at hardware & building supply stores, contact local Health Department.	Replace painted item, cover over lead-based paint, use damp mop to control dust, hand wash, let water run 1-2 minutes in the morning before drinking.
Asbestos	Respiratory problems, lung diseases, asbestosis: cancer of lungs	Insulation around pipes, duct wrap, vinyl floor tiles, spackling, roof & siding shingles, floor tiles, soundproofing materials, heating ducts & flues, textured ceilings, decorative finishes	Special testing needed - contact local Health Department.	If in good condition, leave alone! Have laboratory test done to confirm/deny presence - call local Health Department. If materials are damaged or disintegrating: seal or encapsulate, cover or enclose.

Water Contaminants	Upset stomach, diarrhea, “blue baby” syndrome, birth defects, miscarriages, learning & behavior problems, colic, damage to kidneys & liver, cancer	Bacteria, viruses, nitrate, lead.	Have well water tested at laboratory <i>every year!</i> Ask neighbors about their results. Contact local Health Department.	Reduce backflow, have well inspected every 10-15 years, let water run until temperature changes in lead pipes, seal unused wells, treat water, drill new well, get water from another source.
Radon (uranium, radium)	Damaged lung tissue, lung cancer	Well water, natural gas, some building materials	Test with radon test kits that say “meet EPA requirements.”	Contact certified radon contractor. Plug leaks, change ventilation patterns of home.
Formaldehyde	Irritation of eyes, nose, throat, & skin; nausea; breathing difficulties; headache; fatigue; & asthma attacks	Particle board, some furniture & floor finishes, hardwood plywood & paneling, permanent-press fabrics, cosmetics	Smell, environmental testing firms, do-it-yourself test kits available by mail.	<i>Existing homes:</i> identify sources, coat surfaces, control humidity & temperature, ventilate. <i>New construction:</i> select low formaldehyde materials.
Combustion (carbon monoxide, nitrogen dioxide, sulfur dioxide, tobacco smoke)	Headaches, dizziness, sleepiness, nausea, irritated eyes, breathing & respiratory problems, death	Gas ranges, fuel-fired space heaters, wood-burning stoves, fireplaces, charcoal grills & gasoline engines	Install CO alarm. May have problems if symptoms occur only in home & improve when you leave, more than one person has similar symptoms, and combustion sources are present.	Keep all combustion equipment well-maintained & inspected for safety. Exhaust all combustion pollutants to outside of home. Maintain adequate pressure balance between home & outside. Do not allow tobacco smoking in home.
Biologicals (moisture, bugs, animal dander)	Allergic reactions, asthma attacks, some infectious diseases	Walls, floors, furniture, textiles	Musty smell, evidence of high humidity, standing water, house pets, evidence of rodents & insects.	Clean, disinfect, & dry surfaces. Prevent standing water, regular cleaning, limited use of carpeting & upholstered furnishings.

Information sources: Healthy Indoor Air for America’s Homes (3rd ed.), Help Yourself to a Healthy Home: Protect Your Children’s Health, and Home*A*Syst: An Environmental Risk-Assessment Guide for the Home. Funding for this matrix from Healthy Indoor Air for America’s Homes: CSREES, EPA, MSU.

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