



The Air Quality
Experts

Healthy Homes: Indoor Air Quality Checklist

Our homes play a critical role in our overall health and well-being, while the air we breathe is vital to our existence. With research showing that we are now spending more and more time indoors than ever before, it goes without saying that we should do what we can to improve the indoor air quality within our homes in order to strive for a healthier, happier and safer existence. This is particularly important since studies show that our indoor air can be 5-50 times more polluted than its outdoor counterpart.

We know that poor indoor air quality can be a trigger for asthma, aggravate allergy symptoms, and produced a whole slew of unwanted health symptoms. New research is also making strong links between [indoor air quality and cardiovascular disease](#), as well as its ability to pose an [increased cancer risk](#). In an effort to help trail blaze a path towards many more Healthy Homes, here is a Do It Yourself - DIY Indoor Air Quality Checklist to help you perform a general check of the rooms within your home that are more susceptible to issues, the potential problems typically found in those areas, and some remedies to help improve your indoor air.



KITCHEN

- Ventilation:** make sure your gas range and oven has a proper fan or exhaust hood above that is vented to the building exterior (to minimize combustion byproduct and carbon monoxide exposure).



If you don't have one, have a proper exhaust fan installed and remember to always use it while cooking. It is also important to ensure you NEVER use your gas range for heating, and try to keep the flame properly adjusted (blue, not yellow)

- Moisture:** Look for moisture, drips or leaks in areas that are susceptible such as the dishwasher (hose leaks, old seals), refrigerator drip pans (standing water) and under the sink (leaks or drips).



As moisture encourages mold growth, make sure to clean any visible signs of water, drips or leaks immediately. Clean the refrigerator drip pan regularly and make sure to keep the area under the sink dry and clean. Replace any piping or seals that may be old or defective.

- Household Cleaners:** When we are cleaning the kitchen, we may be getting rid of the dirt, but inadvertently putting other contaminants back in. Typical household cleaners can emit a large amount of VOC's into the air and place a heavy burden on our air quality.



If using harsh cleaners, keep the area ventilated by opening up a window or turning on the exhaust fan. Better yet, choose "greener" alternatives or unscented products. Natural disinfectants such as vinegar or lemon do a great job while not adding any burden to our air quality.



BATHROOMS



Moisture: Check shower, tubs, sinks and toilets frequently for visible signs of leaks and potential mold issues. If any visible mold is observed, use personal protective equipment and clean the area immediately.



Fix any plumbing leaks as soon as they are noticed. To prevent moisture on walls and ceiling, turn on bathroom fans both during, and after showing. Fully extend the shower curtain after use to aid faster drying. Use a squeegee to remove excess moisture on shower walls and glass doors. Waterproof and seal group annually. Use paint specially designed for the bathroom.



Cleaning & Products: Are your bathroom walls, toilet, sink and tub clean? Make sure there isn't a great deal of dust allowed to gather (mold loves dust too!!) Is your shower curtain washed regularly? Are the cleaners you are using non-toxic and low VOC producing?



When cleaning, spray the surfaces down with your cleaner/disinfectant of choice and allow time for it to sit and do its job before you wipe it away. Use natural products or "green" alternatives to prevent adding onto the air quality burden of contaminants in your home.



Air Fresheners: Avoid the use of synthetic air fresheners or aerosol sprays. They are often mistaken to represent a sense of "clean" when they are actually adding contaminants (VOC's) into your air.



Use natural and non-toxic methods to freshen the air in your bathroom. Choose a diffuser with essential oils or a mixture of baking soda and lemon. Coffee grinds, cloves and even Vodka are excellent alternatives.



Ventilation: Check the fan in your bathroom to ensure its capacity is adequate for the size of the space. Bathrooms are an area within our homes that produce the greatest amount of moisture. We need to ensure that the moisture is being sufficiently removed from the space as it is being produced.



Replace old, under capacity fans with newer high-efficiency models. Make sure the fan is always used both before and after bathroom use to ensure moisture is quickly allowed to leave the space. When weather permits, open a window to let the steam out and the fresh air in.



BEDROOMS

- Humidity Levels:** Checking humidity levels in every room in your home, particularly the bedrooms (where sleep can be disrupted) is very important for breathing, as well as for comfort. Levels that are too high, or too low can produce symptomatic and household maintenance issues.



Many inexpensive analog and digital hygrometers are available on the market today to offer instant readings. Optimal indoor humidity levels for comfort range between 30-50% as levels above 55% producing a stuffy feeling that can foster bacterial and/or mold growth. Low levels below 25% can cause chapped skin, throat irritation and itchiness.

- Dust Mites:** Dust Mites can produce nasal congestion, sneezing, itchy and watery eyes, runny nose, cough, sinus pain and more. They thrive on mattresses, bedding, carpeting, curtains and upholstered furniture. They can cause discomfort and disrupt a good sleep.



Keep humidity levels below 50% (dust mites love humidity). Encase mattresses and pillows in hypo-allergenic covers or allergen-impermeable cases. Wash bedding once a week in hot water (130°-140° Fahrenheit is needed to kill the dust mites). Use a vacuum with a HEPA filter regularly on carpets. Use a damp rag or cloth for dusting furniture (dry dusting stirs things up).

- Scents:** Avoid artificial air fresheners, scented beauty products, candles, or room sprays in the bedroom. These increase the burden VOC's are placing on your air quality. Even though they smell nice, they could produce health related or respiratory issues and pose a threat to your well-being.



Choose natural, "green" or non-toxic alternatives to freshen the bedroom. Essential oils with a diffuser are a great choice. Additionally, avoid returning dry-cleaned clothing to your closet or bedroom unless they have completely dried. Choose unscented or low VOC detergents when laundering bedding, clothing or curtains.



Laundry Room

- Moisture:** The laundry room is another room in the home with a high potential for moisture. Check washing appliances and laundry tubs/sinks frequently for signs of leaks and mold issues. If any visible mold is observed, use personal protective equipment and clean the area properly.



Fix any plumbing leaks, spills, or moisture issues as soon as they are noticed. Use paint that is specially formulated for moist areas, like semi-gloss or specialized kitchen or bathroom paint that is designed to prohibit mold growth.

- Ventilation:** Check to ensure your drying is adequately venting to the outside of your home. Check to ensure vents are clean and unblocked. Not only an indoor air quality risk, a blocked dryer vent could also pose a fire hazard.



Install proper venting and have your dryers vents cleaned regularly. Replace older venting with modern units if damaged or inadequate. Open a window when weather permits to let some fresh air in, and some heat out.

- Detergents:** Check if you are using "green", non-toxic products. Traditional detergents contain questionable ingredients that may not be ideal to have next to your skin. From artificial fragrances to phenols, phosphates, sodium sulfate and more, these ingredients should be avoided.



Choose "Green" alternatives. While still providing the same cleaning punch, these products are more appealing to our health. Natural, safe laundry detergents won't break the bank and are eco-friendly for our environment.

- Fibers:** Check your lint trap regularly? Is collected lint from the dryer kept in an open container? Adding to particulate levels, fibers from your Laundry Room can travel throughout your home placing a burden on your air quality and may cause the need to clean more often.



Clean the lint trap in your dryer after every use and discard into a closed or sealed container. When folding, don't shake items upon removing them from the dryer. A gentle fold will keep loose fibers from being put into the air. When possible, dry clothes outdoors to prevent indoor air contaminants from the dryer entering your space.



Basement



Moisture: In basements, there are two concerns with moisture: leaks and condensation. Checks for signs of visible leaks (moisture, water staining, rippling drywall) or issues stemming from foundation cracks. Plumbing or roofing leaks can also rear their head in the Basement (lowest point of home). When a basement is too cold, moist air that comes in contact with it produces condensation. Check for damp walls or moisture beads on surfaces.



Use a dehumidifier in the basement during spring, summer, and fall months. Uncover moisture sources and resolve them quickly. Ensure foundation cracks are sealed and basement is waterproofed. Keep surfaces warm to prevent condensation. Ensure there is adequate insulation. If needed, upgrade to energy-efficient windows. Clean and disinfect sump areas and floor drains regularly.



Radon: Radon can enter our basements via foundation cracks, sump pump holes, and floor drains. It is an odorless and colorless gas that is produced from the breakdown of uranium in the soil and ground beneath your home. Long term radon test kits are inexpensive, readily available and do a great job of providing the information needed to know your radon risks.




When it comes to reducing radon, the EPA recommends methods which are geared towards preventing the entry of the gas to begin with, as well as reducing levels that have already been introduced into the home. When radon levels are known to be an issue in a residence, it's best to look towards a specialist or radon mitigation professional for help.



Particulates: The basement, especially an unfinished basement, is not typically an area where we focus our cleaning efforts. As a result, dust levels in basements, furnace rooms and storage areas tend to accumulate. Check your basement regularly for dust and debris. Look to see if visible particulate levels are accumulating on flooring, belongings or utilities to help prevent them from being moved throughout your home via your HVAC system.



Vacuum, dust and clean your basement regularly, even if it is unfinished. Don't forget the utilities areas like your furnace room or storage areas. Ensure the area is free from accumulated dust in order to prevent the spread of particulates throughout your home. If your dryer is in the basement,


-  **Asbestos:** Asbestos containing materials should be inspected regularly for damage and/or deterioration. Older floor and ceiling tiles, textured ceilings, pipe wrap insulation and some wall materials are just a few areas that may contain asbestos. If unsure, have materials professionally tested for asbestos.



If asbestos containing material is in good condition and is in a low traffic area, you may choose to leave it as is. If it is damaged, deteriorating, disrupted, in high traffic areas, or are considering renovating, than asbestos removal is recommended. Always consult a professional to remove or encapsulate any asbestos containing materials.




Attic

-  **Vapor and Moisture:** Inspect attic space quarterly for signs of moisture and water vapor. Any vapor or moisture entering the attic space may damage ceilings and walls, while also contribute to high humidity issues.



Ensure there is sufficient venting in the attic to promote good air circulation and air flow. If bathroom fans are venting into the attic space, they should be extended and vented directly to the building exterior. If any moisture is observed, immediately remove impacted insulation. Annually seal around chimneys, fixtures and plumbing.

-  **Mold:** Check your attic space for any visible signs of possible mold. Use a flashlight and check all wood surfaces, beams and insulation. If any water staining, discoloration or apparent mold is observed, resolve immediately.



If potential mold is observed, have it professionally tested. If mold is confirmed and is less than 10 sq. ft. in size, remove any impacted insulation immediately and treat area appropriately with proper anti-fungal and anti-microbial products. If mold is observed in amounts greater than 10 sq. ft., professional remediation efforts are recommended.



Garage



Pesticides and Chemicals: Check for leaking chemicals and pesticides. Ensure proper manufacturer's directions are used for optimal safety. Ensure products are stored within original or appropriate containers. Make sure gas cans/containers are not stored full. Ensure paint cans are properly closed and are viable. Check for old products that may have passed acceptable storage times.



Use paint, hobby products or high VOC (volatile organic compound) products in well-ventilated areas or outdoors. Reseal all containers properly. Use natural or non-chemical means of pest control. Remove shoes and clean hands prior to entering living space to avoid cross-contamination.



Exhaust Fumes/Carbon Monoxide/Combustion byproducts: Make sure your garage has a working carbon monoxide detector. Check batteries to ensure and ensure it is functioning properly.



Use weather stripping on all doors and access points between the garage and the house. Do not idle car in garage, and open garage door before vehicle is started.



HVAC System



Carbon Monoxide & Combustion Byproducts: Check maintenance records to ensure annual inspection and service are regularly performed. Inspect chimneys and flues annually and check for blockage and damage. Ensure furnace and air conditioner filters are regularly checked. Check AC water tray often.



Change filters when needed. Inspect and service HVAC system annually and always follow proper service and maintenance procedures. Always ensure flue is open when fireplace is in use. Have chimneys professionally cleaned if required. If using a wood stove, only use aged or cured (dried) wood. Never use pressure treated wood products in fireplace. Ensure wood fireplace doors are a tight fit.

By using this ultimate Healthy Home DIY Indoor Air Quality Checklist you can rest assured that you are looking into potential air quality issues within the rooms of your home most prone to issues. This will give you the peace of mind that comes from knowing you are helping to keep your air, and family safe. If contaminants or issues arise that are cause for concern, or if unsure about your air safety, look towards professional air quality testing to help.