How to make your home a better place to live?

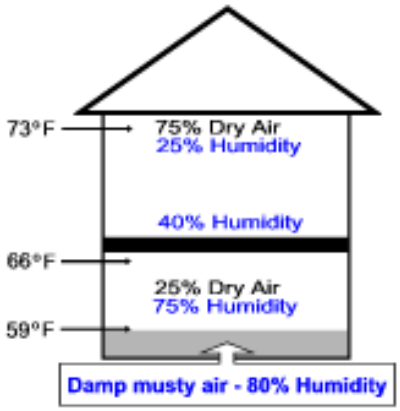


When they first move in, home owners tend to enjoy their pleasant new dwelling, yet quite often by the second year they experience phenomena such as excess moisture, musty moldy odors, and allergic reactions to indoor air contaminants. As the seasons change, humidity issues that lead to damp uncomfortable basements & crawlspaces, or even window condensation upstairs, can become apparent.

Where lack of air ventilation is critical?

More than any other room in the house, the basement can become a repository of unpleasant odors, moisture problems, mold growth and other indoor pollutants. Unventilated basements are not only prone to musty odors and mildew, the basement is also commonly used to store household chemicals, paints, solvents,

automobile products and cleaning products slowly release chemicals into the air.



In an unventilated space, these chemicals build up and produce toxic environment. Ventilating the basement exhausts polluted or musty air and draws in fresh air from outdoors.

These are two basic methods for basement ventilation: natural and mechanical, but the second one has definitively huge advantages depending on the technology being used.

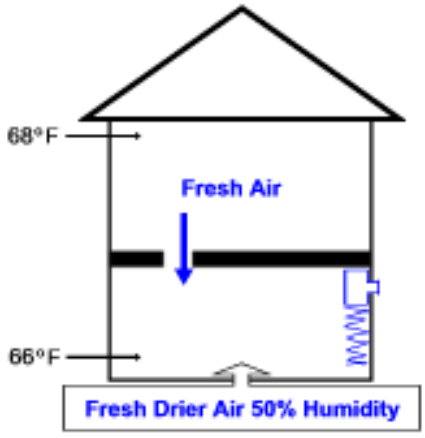
Why ventilate?

Due to its position below ground, moisture from the earth seeps in through the floor and walls. When this cold moisture collides with the warmer basement air, condensation develops.

Excessive condensation creates a musty, sour smell and, if left to collect into pools of liquid water, stagnates or produces a breeding ground for mold and mildew spores. Some molds are toxic and hazardous to the health of the home's occupants.

The EPA (Environmental Protection Agency of USA) reports that certain types of mold, particularly black mold, can aggravate or cause allergic reactions, asthma attacks and symptoms of influenza. The EPA recommends that homeowners reduce or remove any water leaks or moisture problems and ventilate the basement. A constant influx of clean, fresh air inhibits mold and mildew growth.

The EPA suggest as well that homeowners maintain an environment below 60% of humidity to inhibit the growth of mold and mildew in their basements.



Natural method

Natural ventilation makes use of natural air currents, but this type of ventilation works only for basements with windows that are strategically placed and able to open and close. While the natural method conserves energy.

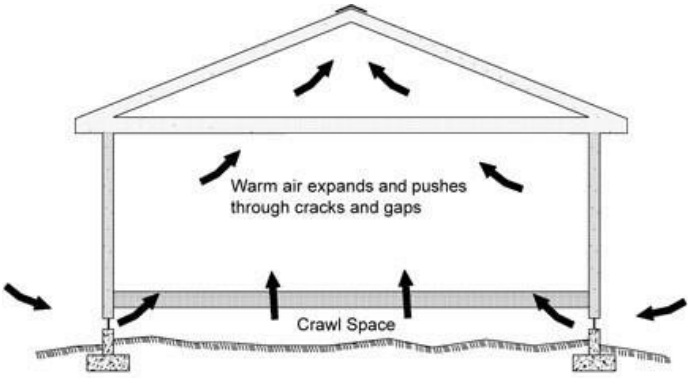
Its does require more work. Windows must be opened at regular intervals and closed during times of rainfall, high outside humidity level, or at night because of the air features change over from dusk to dawn. For best results, window should be opposite each other across the basement space, following the drafts of the basement.

If the basement is continuously wet, the natural method is most likely insufficient, and a more mechanical system may be required.

Mechanical method

Mechanical ventilation uses fans and vents to exhaust existing basement air and bring in fresh air. The simple but not very efficient type may be placing small window fans in opposite windows or as technical as installing an exhaust fan with ventilation pipe to bring outside fresh air.

The most sophisticated and computerized product will create a permanent air circulation inside the basement and replenishing the fresh and clean air from upper levels by controlling on time indoor air feature.



Stack Effect in
Crawl Space Ventilation

Mechanical ventilation is also a requirement for homes testing positive for radon, an odourless gas that is the leading cause of lung cancer in North America among non-smokers.

What fit to basement apply for similar reasons to crawlspace even if this space is not a room but integrated in home envelop and impact living spaces with stagnant moistly stale air raising to main level.

Because clean air matters with every breath.

How to know that your home needs indoor air treatment?



Because healthy indoor air quality matters for all of us specifically when no regulations mandator it mainly in retrofit market, but as well as new constructions mostly equipped with air exchangers whether they are HRV or ERV!

The first question you need an unambiguous answer to prior to before making a more complete diagnosis: **Is your home's indoor air making you sick?**



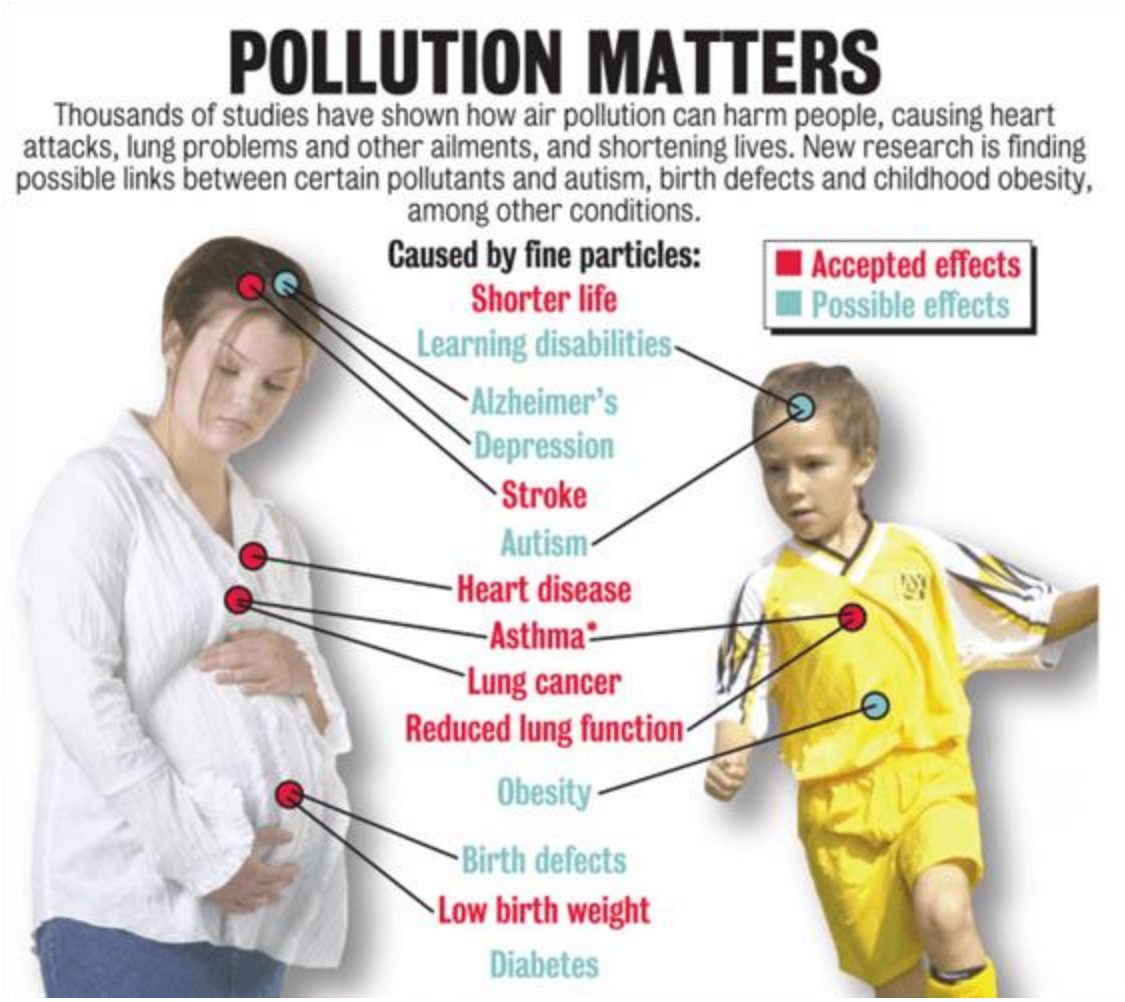
Why does indoor air make us sick?

Building an air tight home or apartment usually may restrict airflow and pose dangers for the dwelling indoor quality and occupant's health by keeping inside excess of moisture and harmful pollutants.

An efficient home ventilation system solves this problem by removing stale air potentially toxic air and replenishing it by clean air for good Indoor Air Quality (IAQ).

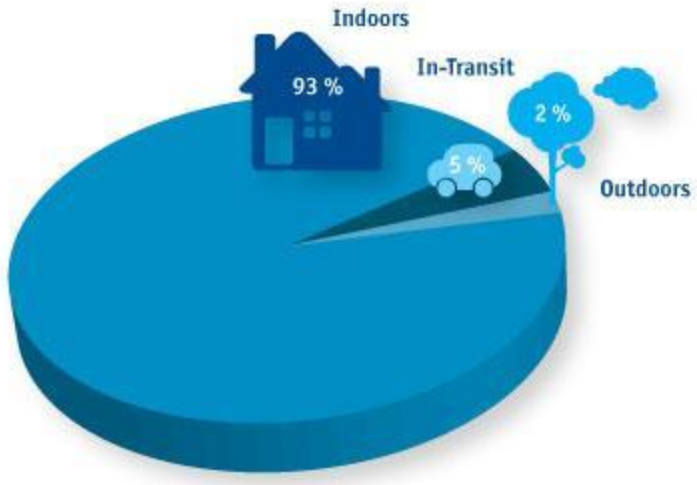
Health symptoms linked to poor IAQ:

Headaches, breathing allergies, sinus congestion, coughing, sneezing. dizziness, nausea, etc ...



Pollution matters!

Much like the human body your home has to breath,
and because on average you spend nearly 90% of your time indoors where pollutants can be from two to five times higher than outdoor levels,
an HVI certified mechanical ventilation system might address poor ventilation issue.



Indoor Time Statistics

What hazards are trapped inside your home?

Dust, mites, mold, dampness, carbon monoxide, carbon dioxide, VOCs (Volatile Organic Compounds), chemicals as aldehyde, benzene, chlorofluorocarbon, cleaning products, etc ...
The most effective safeguard against unhealthy indoor air is mechanical ventilation which:

1. Removes stale, contaminated air and replenishes the dwelling with fresh oxygen-rich air.
2. Minimizes indoor pollutants by lower concentration of particulates, & VOCs.
3. Prevents moisture-related damage.
4. Improves a home's durability.

Because Clean Air matters with every breath!

Clues that you have a wet basement



The American Society of Home Inspectors estimates that 60 percent of U.S. homes have wet basements. That means that more than half of American homes could have indoor environmental issues brought on by too much moisture. Whether it's from subsurface seepage, rain-related or excess humidity, there are a number of clues that let you know you have a problem.

Time to play detective? Take a walk around your basement and note if you can see any of the following:

- water stains or dampness on the walls or floor?
- condensation on the windows?
- a musty smell?
- peeling or bubbling paint on the walls?
- rot in the corner boards?
- rusty baseboard nails?
- rust around a steel support column?
- curling or loose floor tiles?
- efflorescence - white powdery substance on brick walls?

- rusting water heater, dryer, washer, or other appliance platforms?

Excess moisture in your basement can lead to a number of problems including structural damage, mold & mildew, and health issues. While it may not be your main living area, it also impacts the quality of air in the rest of your home.

Simple steps to reduce basement moisture

One of the first steps you should take is to diagnose where the excess moisture is coming from and take preventative steps to reduce it.

1. Check for leaks in the foundation walls. Fill any cracks. Regrade soil around foundation walls to prevent water from moving toward the foundation. Direct downspouts far away from basement walls with downspout extensions and clean gutters.

2. Insulate exterior walls to prevent condensation. In colder climates, insulating basement walls will save energy and reduce your heating bill. (Don't cover the walls with insulation if water is leaking in from outside as it will create a potential mold problem.

3. Insulate pipes - condensation dripping from cold pipes can contribute to basement water problems.

4. Seal leaky dryer vents with foil tape (not duct tape) to prevent unwanted humid air from entering your basement.

5. If you have a basement bathroom, ensure it has a vent and turn it on during showers.

6. Keep your basement windows closed during humid weather.

7. Install an effective humidity control system or dehumidifier

How Humidex helps solve the problem

Once you get rid of the preventable sources of moisture, you have taken a big step towards improving the overall air quality of your home and protecting your investment.

The next step is adding an energy efficient moisture control and ventilation system like Humidex that will cost-effectively keep your basement at the optimum moisture level and replenish your home with healthier, cleaner air all year round.

Once you solve the problem of a wet basement, not only will you find the air in your upstairs easier to breath, you will have a whole new area of usable space in your home.