

# Is your home a moisture trap?

A 2005 study found that in most homes with crawl spaces, up to 50 percent of the air in the home had at one time been in the crawlspace via leakage. This moist damp air can buckle hardwood floors, create fertile ground for mold growth (an asthma trigger), attract pests and termites, and can even cost more in terms of energy consumption. According to one recent study, crawl spaces open to the outside are “moisture traps”.

The bottom line: if you have a crawl space open to the outside it may lead to issues with safety, health, comfort, durability and energy loss, according to Research Report 0401 which was prepared for the US Department of Energy’s building America Program in 2006.

There are more than 200,000 new homes built over crawl spaces each year, not to mention the countless others that preceded them. Most of the crawl spaces being built now are still being built with foundation vents, which are designed to keep moisture problems to a minimum. The problem is, they don’t.

Building scientists have long asserted that the vents bring in more moisture than they let out according to Bruce Davis, former research director at Advanced Energy, a Raleigh, N.C. building science consulting company. In the fall of 2005 Davis, along with building science associate Cyrus Dastur, conducted a study to investigate if something different could be done to crawl spaces that would not only solve the moisture problems but not cost more in energy consumption.

Their studies found the solution. The solution is properly sealing, insulating and having conditioned air moving through the crawl space. Not only will the space become dryer but conditioning the space can actually reduce energy consumption. Removing the moisture from the space will help prevent molds, wood rot, and pest infiltration and can lead to better overall air quality in the entire home.

Joseph Lstiburek, Ph.D., a principal of Building Science Corporation in Westford, Massachusetts with twenty-five years of experience in design,

To learn more about how EZ Breathe can help your home call 1 866 822 7328 or visit our website [www.ezbreathe.com](http://www.ezbreathe.com)

construction and investigation, researched and reported on the same problem.

Lstiburek states, “Crawl spaces should be designed and constructed as mini-basements, part of the house-within the conditioned space. Crawl spaces must always have a drying mechanism. One of the most effective ways to provide a drying mechanism to a crawl space is to condition the space by heating and cooling it as if the space is included as part of the home.” Lstiburek goes on to say that the air used to condition the crawl space should be supplied from the home (living area above) and then can be exhausted from the crawl space. According to Lstiburek, “A dry crawl space is less likely to have pests, termites and mold. A dry crawl space is therefore safer and healthier than a wet crawlspace”. Taking its cue from studies like these, EZ Breathe Ventilation system is working to help

homeowners rid their crawl spaces of damaging moisture.

EZ Breathe ventilation systems installs a vapor barrier, seals the crawl space vents, provides airflow from the conditioned portion of the home and most importantly, installs an EZ Breathe ventilation system.

The EZ Breathe unit is specifically designed to exhaust damp, moist, damaging air from crawl spaces and basements. The EZ Breathe is more effective than a dehumidifier, uses only 40 watts of electricity costing an average of \$4 a month to operate. Unlike dehumidifiers which can cost up to \$30 a month to run, the EZ Breathe is maintenance free: no buckets to empty, no filters to clean. Moving beyond the basement and crawl space an EZ Breathe system provides a whole home ventilation solution to rid the building envelope of toxins, pollutants, allergens and moisture, creating a healthier indoor environment for all who reside there.