

# “It’s Not the Heat, it’s the Humidity”

**Dan Howard**  
EnviroSpect

No matter how old you are, you have certainly heard, and probably said: It’s not the heat, it’s the humidity. This year has been a time of high humidity, but not a lot of heat. It’s also been a season of allergies, rashes, increased asthma, swollen eyes and other health irritations.

If you have been feeling “yucky”, the contaminants made worse by dampness could be the reason. This dampness can come from humidity, leaks or hidden condensation. It may surprise you to know that the medical community has discovered that dampness can make most contaminants worse.

Understanding why this happens in your home can be worth a look for you and your family’s health and comfort.

You may think that when we talk about your health and dampness in your home, we are simply talking about leaking basements and mold. That could not be further from the truth. According to AAAAI (American Academy of Allergy, Asthma and Immunology) studies, “dampness” inside of buildings is responsible for a host of increased illnesses.

High moisture can increase the presence, viability and transmission risk from:

- Insects
- Dust Mites
- Pollen
- Bacteria
- Viruses
- Germs
- Off Gassing of Toxic Chemicals
- and of course, Mold



## HEALTH STUDY TIP:

There are many tools and solutions available for reducing unhealthy exposures in buildings.

When it comes to your health and dampness, it has been difficult to get the medical community, their patients and home improvement professionals to understand each other. The medical professional focuses and talks in terms of health and the body, but not construction.

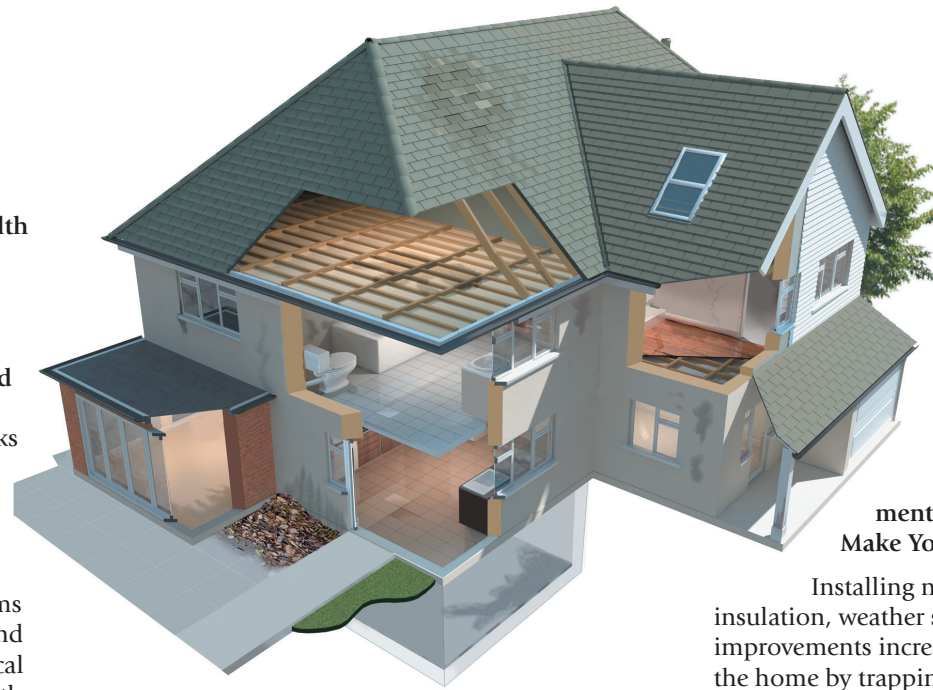
The homeowner cannot describe hidden problems and complicated building and chemical issues to the medical practitioner. Heck, how can they talk about these issues that building scientists are just now beginning to understand?

The contractor hired to build and remodel buildings does not understand the 290 page Public Health Study document prescribing environmental goals relating to a healthy home.

Reducing dampness reduces the levels of contamination. The technical medical term for reducing the level of health risks is “Avoidance.” Simply put, as examples, if you have allergies, reduce the cause of elevated allergens, if a patient has a condition making them susceptible to a particular mold, it needs remediated to be avoided. “Avoidance” needs considered for hundreds, if not thousands of contaminants.

The problem with actually achieving “Avoidance” as a proper medical treatment is that the doctor cannot go home with all of the patients. They therefore do not know what conditions and contaminants are in a patient’s home, school or workplace for them to avoid. The bottom line is that the best single defense to improve health in any home is reducing and controlling the moisture. Having an assessment for dampness and other environmental hazards and implementing improvements to reduce those conditions is the best plan of action.

There are many tools and solutions available for reducing unhealthy exposures in buildings. These vary depending upon the type of contaminants present and the conditions in the building. There are experts available who understand testing and solving these conditions.



work can become wet. In winter, you could have a warm interior of the house, but exterior walls will be cold and become wet inside.

## Your Home Improvements and Dampness Can Make You Sick

Installing new windows, doors, insulation, weather stripping and other improvements increases the dampness in the home by trapping more moisture in the home. Improperly sized or high efficiency heating systems can also have the negative effect of adding significant dampness in the home. New roofs or changes in venting can create moisture problems where they never existed.

There is a plain English explanation of how moisture can be a year around problem in just about any building including your home. We tend to think of moisture in the home as a spring problem. That’s not how that works.

Think about the windshield in your car. In winter your window fogs up on the inside. We turn on the defrosters and bingo, bango the window clears up as we warm the windshield.

Let’s now think about summer. We turn on the air conditioner in the car and the outside of the windshield fogs up as the window gets cold. We can’t heat all of the outside air, so we turn on the windshield wiper and wipe away the condensate on the outside of the cold windshield.

What that teaches us is that when there is elevated moisture in air and a temperature difference between objects or materials, there can be condensation and moisture. It can be on the outside of the walls, or the inside of house walls, inside air conditioner ductwork, in attics, crawl spaces or any other cold area near a warmer area. Water will condense on available colder surfaces just like condensate collects on your glass of ice water on the Fourth of July.

Your home always has moisture created when you breathe, shower, cook, or do anything else that involves water vapor. In summer, your house may be room temperature, but materials around air conditioner duct-

## What Do We Do Now?

- Control and monitor relative humidity to between 40% to 50%
- Add a dehumidifier. Consider a whole house dehumidifier or a portable unit connected to a continuous drain.
- Add an ERV (Energy Recovery Ventilator) to your furnace to add fresh air, control moisture and reduce heat or cooling loss.
- Run forced air HVAC systems with the blower fan set to “on” instead of “auto” for better distribution of moisture through the entire home
- Have HVAC systems property sized
- Identify and correct areas of dampness
- Look at the condensation issue when making home improvements
- Eliminate hidden areas of condensation such as those in unheated areas
- Have an assessment of your home to identify contaminates and hidden moisture areas

Go to [www.EnviroSpect.info/HealthyHome](http://www.EnviroSpect.info/HealthyHome) for more information and links to important references on the topic of Healthy Homes.

Dan Howard is the owner of EnviroSpect. For environmental consultation call 724 443-6653. For more information visit their website at [www.EnviroSpect.info](http://www.EnviroSpect.info) Email questions to: [Dan@EnviroSpectofWesternPA.com](mailto:Dan@EnviroSpectofWesternPA.com). Like us on Facebook or connect @DanHoward251.