



# FOXHILL

## LUXURY

REAL ESTATE SERVICES

### “What Causes High Humidity in the Home”

We maintain and manage the finest Luxury Real Estate in Fairfield and Westchester Counties. We have seen a thing or two over the last 40 years. So, let me ask how is the comfort of the (HVAC) in your home? Too hot, too cold, too dry, or too humid? How important is humidity?

What is a High Humidity?

Ideal indoor humidity should be between 45-55%. Anything above this is considered high. When the humidity level goes beyond 55%, it is considered a high humidity. During winter, the ideal humidity is between a temperature range of 20-23.5 degrees Celsius (68-74.3 degrees Fahrenheit). However, during summer, the humidity is between 23-25 degrees Celsius (73.4-77 degrees Fahrenheit). Temperatures higher than these will bring high humidity.



What is a high humidity level outside? An ideal outdoor humidity level should be between 30-50%, but it depends on the temperature outside. As such, the warmth in your region is what will determine what is high humidity outside.

Is 70 percent humidity high? 70% humidity is above the ideal humidity range, and it is what is considered as high humidity outdoors.



Humidity can also cause adverse effects to your health:

**Asthma.** High humidity is incredibly problematic for people who have asthma. When the humidity is high, the air becomes denser because of the extra water, making it harder for asthmatic patients to breathe. When this occurs, it creates a more significant risk for asthmatic patients to experience an asthmatic attack. Also, high humidity causes an increase in mold spores' growth that could also trigger an asthma attack.

- **Heat strokes.** High humidity causes overheating to your body. Ideally, when you indulge in strenuous exercises, especially during summer, your body could overheat and lead to a heat stroke. Sometimes, a heat stroke can be severe and even lead to death.

Let me give you an example of a common condition we find in 95% of the homes we maintain. Let us say I come to your house with an empty 5-gallon bucket then fill it three times and I take the 5-gallon buckets of water and I dump one in the kitchen, then one in the living room and one in the master bedroom. Then I am going to refill the buckets and dump them in the other bedrooms and the bathrooms. I do not think you are going to be incredibly happy with me am I correct? I mean seriously nobody in their right mind would do that right? The cold hard facts are that may very well be going on in your house, and you do not even realize it. Let me explain.

We are beginning with a basic air conditioning lesson. For every ton of air conditioning, you have in your home that machine produces around 400 CFM's (cubic feet per minute) of air. So, if you live in a 2,000 sq. ft. home you have a four-ton air conditioner that is producing 1,600 CFM's and sending it into your duct system. As a point of reference to understand a CFM think of it as enough air to fill up (1) basketball. Stay with me I am going to tie this all together, I promise.

**100 Cubic CFM (Cubic Feet Per Minute) Of Air Leakage in Your Homes Ductwork Adds 12 Gallons of Water to The Atmosphere of Your Home Every 24 Hours!**

So, we are sending 1,600 basketballs of air into the duct system. The next question is how many of those basketballs are making into the interior of the home? Where would they go you ask? Amazingly simple answer... it is highly likely the duct connection points in your attic are leaking. This is of course based on the age of the duct system, how well it was put together to begin with and has any maintenance been done to the ductwork? I find the typical duct system to be leaking around 200- 400 CFMs of air when we evaluate them. Next thing to think about is where are most of our ductwork systems located?





Most of our duct systems are in our attics and basements. The typical Florida attic on July 17<sup>th</sup> at 3:42 pm is going to be around 150 degrees with a humidity level somewhere around 85%. Not a very pleasant space to say the least. So back to our leaky ducts for a second, when the air is on and running it is moving thru the duct system at about ten (10) miles an hour. Any openings in the ducts allow air from the attic to be pulled into them so we are pulling hot humid air into the duct work from the attic. Ready?

**FOR EVERY 100 CFM OF AIR LEAKAGE IN YOUR DUCTWORK YOU ARE ADDING 12 GALLONS OF WATER TO THE ATMOSPHERE OF YOUR HOME EVERY 24 HOURS**

So, if you have a leaky duct system (I will bet \$100 dollars you do) you are doing exactly what I described in my opening statement. The duct system leaks are making your home more humid, making your air conditioner work harder and run longer, along with causing higher utility bills. One of my mentors many years ago said to me if you do not test you guess, so yes, I am guessing your ducts are leaking based on the hundreds of duct systems I have seen over the last decade.

The only way to know for sure is to evaluate so give us a call and let us test your duct system and see how it's performing. A duct system & home evaluation is \$189.00 dollars and if you do not see the value in the information, we provide about what is happening in your home we will refund your money. Does not get any better than that if you ask me.



Anyway, I am off to evaluate another HVAC system and see a mold filled attic and basement (oh joy!!). Until next time friends, call, text or email us any questions! [andrew@greenwichductsealing.com](mailto:andrew@greenwichductsealing.com)

**So, to review a CFM is enough air to fill up (1) basketball and for every 100 CFM of air leakage in your ductwork you add twelve (12) gallons of water to the atmosphere of your home every 24 hours and draw moldy, musty dank air from the attic and basement into your home that can make you sick!**