Could Your Home Be Making You Sick?

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Impact of Heating and Air Conditioning systems and your health

This is a series of articles I am writing that covers issues that impacts your health and comfort in your home or office.

In my last article I discussed some of the filter systems, dehumidifiers, and other products available to address IAQ issues. In this article I will summarize what I feel is the best choices to address IAQ.

We can sit here and discuss all day long how to fix things and what to do. However unless you know what’s going on inside a structure you really can’t address how to begin. I have covered in previous articles what testing equipment we have available to help us make recommendations about changes to the structure that can enhance indoor comfort conditions. When my father started Total Air & Heat Co. in 1957 he did it because his friends and neighbors needed his expertise. Fred Lauten made the decision at that time there is only 1 way to do something, and that is “the right way”. We prefer to assess the structure and have as much information as possible before we make any suggestions, however we have to start somewhere.

Some things I will recommend are fairly obvious, like you need a good filter system. I don’t know why people want to argue about that, they say I don’t have any allergies, I don’t need it. I don’t need a 60” plasma screen television according to my wife, but I want one! Let me tell you why you NEED a good filter system:

1. Cooling coil designs have changed over the years. They have more fins per inch now, thus the spacing is closer together; causing them to collect dirt much easier than they used to. In addition the newer design cooling coils run warmer refrigerant temperatures making them more vulnerable to bacteria growth. The easy and logical solution is to have a high quality media air cleaner!

2. Clogged condensate drain lines are caused by dirt, dust, and any other particulates or VOC’s that move though your cooling coil but are not caught by your air filter. Clogged condensate lines can cause many $$$$ thousands of dollars in property damage due to water leakage. Insurance deductibles typically are 1% of property value; therefore damage caused by clogged condensate lines is rarely covered by insurance. In addition, hidden damage can lead to mold issues within a structure. The easy and logical solution is to have a high quality media air cleaner that captures dirt, dust, and particulates before they can cause a condensate drain to become clogged.

3. Efficiency-as it ages; you’re a/c and heat system loses efficiency. The only question is how fast does this occur? It depends on a multitude of factors including how good job was done when the system was installed, how well the system is maintained, and……how good of job your air filter system does in capturing airborne particulates before they enter the HVAC system. The
best way of insuring your indoor HVAC equipment does not suffer premature aging is a media air cleaner.

I have focused on media air cleaners as the easy and logical way to avoid cooling coil degrading, clogged drain lines, and reduced efficiency. I think my reasoning behind my conclusions is very straight forward. However…..I want to do my best to take those who still are not certain to the finish line.

In my opinion you are paying for the upgraded media filter system whether you install one or not! My point is the investment of approximately $500 to have the filter system installed is far less expensive than the maintenance issues you will encounter if you don’t install one. In addition the efficiency of the system will be sustained over its life span, and the life span of the system will also be increased. There are simply too many critical factors you will likely face if you don’t use a high quality media air cleaner as the minimum choice of air filtration options.

Let’s review some air cleaner choices.

**Media Air Cleaners**- We carry Honeywell, Trane and Lennox air cleaners. All of them are good choices, and all of them perform fairly close to each other in their ability to capture particulates and allergens. These air cleaners are an excellent choice for those people that want good, affordable air filtration that meets the needs of the average family.

**Lennox PureAir**- This is a media air cleaner that also features a UV light to provide enhanced Lennox offers. I highly recommend this air cleaner for those people who suffer from seasonal allergies.

Electronic air cleaners are a step up from a media air cleaner, they offer increased particulate control, and some offer increased control of VOC’s and viruses. I do want to say that I do not recommend any type of electronic air cleaner unless you can consistently clean it every 60-90 days or have a maintenance agreement.

**Thermostats**- There are numerous thermostat choices available to you. Keep in mind many thermostats may carry a manufacturers name on it, but it is made for them by someone else. In addition, some thermostats are made for manufacturers with specific traits unique to the unit it is designed to control, I will cover some this below.

**Honeywell**- Known for a long time as the most recognized manufacturer of thermostats. Have the most choices from a simple entry level digital to thermostats with high definition color screens with optional remote controls.
**Prestige™ Comfort System**- this Honeywell’s flagship thermostat. This thermostat features: A large easy to read color display with backlighting, when the optional outdoor sensor is used it will display the outdoor temperature and humidity on the main screen of the thermostat. This thermostat also has an optional remote control called the “personal comfort control”. This remote has many capabilities including the ability to sense and control room temperature from the remote, plus control other Honeywell thermostat that use RedLink wireless capabilities. Some of the other products offered by Honeywell that feature RedLink capabilities are zoning panels, TrueSteam humidifiers, whole house dehumidifiers and fresh air systems. The Prestige Comfort System is also available in a standard definition screen without sacrificing any other benefits. The Prestige thermostat does have some installation requirements for control wiring and may not be compatible on all applications, call for details.

**Vision Pro IAQ**- A great thermostat that also offers the ability to control a humidifier, dehumidifier, and can control fresh air ventilation that meets ASHRAE standards. All homes and offices are not created equal, some multistage systems require additional control wires and the Vision Pro IAQ only requires 3 between the wall control and the equipment module. This can make installation much easier on multistory homes where running control wiring indoors is difficult. The equipment module is mountable near the furnace or air handler. The Vision Pro IAQ has an optional telephone access module available which enables the customer to access the thermostat remotely (via telephone) and make changes to temperature settings, and find out system status. The telephone access module can also be set to call predetermined telephone numbers if a problem arises with the a/c or heat system.

**Vision Pro**-One of the most popular thermostats ever offered! Affordable touch screen technology, easy to use, programmable. It’s our All Star thermostat. Is comes standard with the ability to be programmable, but can also be set as non-programmable.

**Honeywell non Programmable**-to be honest, I think it makes more sense to invest in the Vision Pro and set it as non-programmable. We do carry non-programmable thermostats, call for details.

**Trane Thermostats**-most of the thermostats offered by Trane is identical to Honeywell, and is made by Honeywell for Trane. The XL900 thermostat offered by Trane is “communicating” and is able to work from 3 thermostat wires for the indoor system and 2 to the outdoor unit. This thermostat is made for Trane by Honeywell but used exclusively on Trane communicating series of furnaces and air handlers, plus several of the Trane 2 stage outdoor units.
**Lennox Thermostats**- A new color screen thermostat is due to be released by Lennox in the spring of 2010. I have seen some of the details about this thermostat, depending on its price point it may shake things up! The rest of the Lennox thermostat product line is similar to what is available by other manufacturers.

**In summary any structure whether it’s a home or office should have proper air filtration. Technology and efficiency has advanced enough in air conditioning and heating equipment that any system over 15 years of age should be considered for replacement. Total Air and Heat Co. has the ability to evaluate your current filtration system, your current a/c and heat system and give you the answers you need to make an educated decision based on comfort, energy savings, and peace of mind.**

We specialize in all aspects of home and office comfort including:

- Indoor air quality, humidity control, air filtration, programmable thermostats, digital thermostats, zoning systems, high efficiency air conditioning and heating systems, geothermal air conditioning and heating systems, duct sealing, duct replacement, IAQ testing, air conditioning and heating system efficiency testing, preventative maintenance and service agreements.

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Total Air & Heat Co. has been serving the North Dallas/Collin County area since 1957 and has been voted the “Best Heat and Air Contractor in Collin County” 14 times by the Readers of Star community Newspapers.