

Understanding Indoor Air Quality and How It's Handled in Super-Insulated Homes

As we all work to make our homes more airtight, we also have to be conscious of our families' need for fresh air — oxygen above all! If our homes were completely airtight, we not only would risk suffocation, we would also be more susceptible to the toxic gases and fumes emitted by our paint, our carpeting, our gas appliances, and more.

The outgassing from our carpet and other building materials are known as "volatile organic compounds" or VOCs.

An appliance which you'll be hearing more about as homes become better insulated and therefore more airtight is displayed schematically in the third column. It's called an Energy Recovery Ventilator (ERV) or a Heat Recovery Ventilator (HRV).

Before I explain this appliance's operation, let me tell you what it



replaces: the exhaust fans in your bathrooms and above your kitchen stove. Those exhaust fans simply pump air out of your house, which causes fresh air to be sucked into your house via the gaps around your doors and windows and multiple other gaps you are not aware of.

That air which enters your home is not preconditioned in any way. It is whatever the temperature is outdoors, and in midwinter it could make your furnace work harder heating the cold air which naturally enters your home, whether or not those exhaust fans are operating.

Thus, the primary job of the ERV or HRV is to use the heat from the air being exhausted from your home to preheat the air that is entering your home without having those two sources of air mix with each other. This is done through a heat ex-

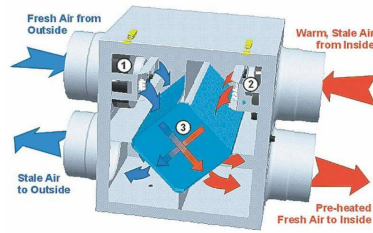


Image from homes.winnepegfreepress.com

changer. In the above diagram, the heat exchanger is in the middle of the device. The unit runs at low speed, taking the stale air from your bathrooms and kitchen (typically), through a metallic heat exchanger which then adds that heat to the air which is passing through the adjoining passageway from the outdoors into your living spaces. That fresh air replenishes the oxygen in your home.

What I have described above is the function of the HRV, which only handles the transfer of heat from one air source to the other. The

ERV also performs the transfer of humidity. Thus, if the cold air outside your house is very dry (typical of Denver's climate), the ERV will transfer some of the moisture from the indoor air to the incoming air.

Neither the ERV nor the HRV measure or react to the presence of toxic gases in your home. That's the added value of a third device, the CERV or Conditioning Energy Recovery Ventilator. If you're concerned about indoor air quality, this is the device you'll want to consider installing in your home.

Whereas the ERV and HRV may operate on an as-needed basis, the CERV is intended to run 24/7, constantly monitoring the level of CO₂ and VOCs in your indoor air as it is drawn through the unit. If the levels of these or other pollutants are high, the unit's fan will run faster. A recent update of the unit has the addition of a virus-killing UV light.

Also, a CERV contains a heat pump, so it can actually perform the function of a furnace, preheating the air which is drawn from outdoors (or recirculated through the room), not merely transferring the room temperature heat from the exhausted air to the incoming air.

Learn more about CERVs at www.BuildEquinox.com. The local vendor is **Todd Collins** of AE Building Systems, 720-287-4290.

How to Recognize Scam Emails, Texts and Phone Calls

Senior citizens in particular are targets for scammers. It's easy to be taken in by a scam email or phone call, so here are some tips on how to recognize them. I'm not an expert on this topic, but I'm speaking from my own experience. I have never been a victim of a scam because I'm careful. I'm sharing with you the care I take to avoid scammers.

If you do end up speaking with or exchanging emails with a scammer, remember this above all else: If it sounds too good to be true, it's a scam. If they ask for any personally identifying information, it's a scam. If they ask for money, it's a scam. Better yet, though, it's important to recognize the emails so you don't open them and scammers' phone numbers so you don't answer them. If they say they are from your bank, etc., hang up and call your bank.

Scam emails: The main danger with emails occurs when you open an attachment or click on a link that contains a virus. Never click on a link or attachment you are not expecting. For attachments, look at the file name. If the suffix is ".htm" or ".html" it's a website, not an attachment, and it will capture your information and suck you in. Word files (".doc" or ".docx") can also contain hidden links in them that capture your information or plant a virus on your computer. An Acrobat file

(".PDF") might be safe, but I wouldn't open one I'm not expecting from a trusted person. If the PDF asks you to enter something like a password or email address before opening, you know it's a scam or virus, so don't do it!

Look at the email address of the sender, but more importantly, float your cursor over the address to see what the sender's *real* email address is, because it could be different. That's a red flag. Look at the suffix on the email address. If it's not ".com" or ".net" or ".org" or ".edu" or ".gov" it might be for a foreign country — another red flag. If it says the attachment is a voicemail, or an invoice, or "payment advice," that attachment is probably a website and it's a scam. If you have opened an email and the whole message is one link because wherever you float the cursor you see the finger pointer instead of the arrow pointer, that's a red flag. Close the email and delete it! If there are links in an email, float your cursor over the link without clicking on it, and see if it's the same. For example, the link might look legitimate, such a "microsoft.com," but when you float over it you see some other address, perhaps ending in a country code (".uk" or ".ru" etc.) that's a red flag. Close and delete the message! If you do visit a website, float over any link within that website for the same reason.

Phone calls and text messages:

It's best to let unknown calls from unknown numbers go into voicemail. Usually a scammer won't leave a voicemail, so don't think you missed anything important. Look at the phone number. Never answer an "unknown" number or a number from another country or a number from "United States" instead of a specific city. If you answer the phone and the person uses your legal first name instead of your nickname, and if they ask how you are today instead of just saying hello, they're either a solicitor or a scammer. You don't need to be polite. No need to say good-bye, just hang up.

On text messages, use the same advice as above. Don't click on a link. You can ignore text messages. If it's a real person, they'll call you if you don't respond. Above any text message will be an icon for the sender. Touch it, then the word "Info" to learn more about who the sender may be.

2022's Top Producer Is Named

Congratulations to David Dlugasch, our top-producing Broker Associate for 2022! Last year he sold \$5,625,700 worth of his own listings and represented buyers in the purchase of \$5,278,900 worth of listings.

Since joining Golden Real Estate in October 2014, David has closed 47 listings and assisted buyers in closing on another 39 listings. He moved to Arvada from Crested Butte, where he owned his own brokerage, choosing to join Golden Real Estate because he was regular on-line reader of this very column. Thanks, David, for being one of our hardest working and most consistently productive broker associates.

Jim Smith
 Broker/Owner, 303-525-1851
Jim@GoldenRealEstate.com
 1214 Washington Ave., Golden

Broker Associates:
JIM SWANSON, 303-929-2727
CHUCK BROWN, 303-885-7855
DAVID DLUGASCH, 303-908-4835
TY SCRABLE, 720-281-6783
GREG KRAFT, 720-353-1922