

Creating the home you've been dreaming of!

# DOING IT RIGHT

With help from D4 Construction

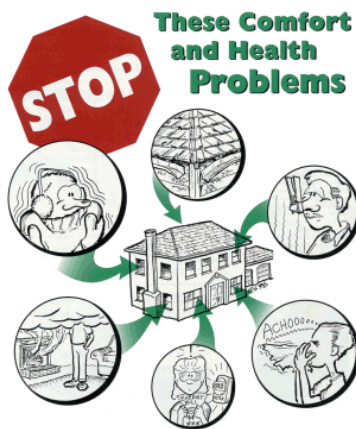
Vol. 4 # 7

## The Air Exchanger

### Do You Need One

It's just not practical or sensible to throw open a window or run a fan during winter. Yet all that stale *and increasingly* toxic air is bad for your health.

Some choice plants and a UV light system have helped to clear the air to a degree but if you really want to be sure your air is toxin-free you'll need to find a practical method for circulating and refreshing your household air without the need for opening a window or using a fan.



**Stale and toxic air is**

**bad for your health...**

picture © [http://www.warmair.com/html/air\\_quality.htm](http://www.warmair.com/html/air_quality.htm)

### Introducing the ERV...

"It's like having a spring breeze in your home in the middle of winter."

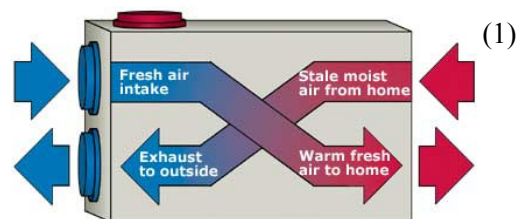
An ERV or Energy Recovery Ventilation system/Air Exchanger/Heat Recovery Ventilation system provides moisture control, indoor air quality, and energy recovery by:

- ⇒ Bringing in fresh, outside air into the house while pumping stale, indoor air out
- ⇒ The warm, stale air (summer or winter) from inside the house gives its energy to incoming warm, cool, or cold fresh air from outside

Besides providing controlled ventilation, ERV's are able to filter, humidify, dehumidify, heat or cool the incoming fresh air.

In other words the old stale air is flushed outside and on its way out it sheds its heat - in winter, or cold - in summer, to the fresh air coming in from the great outdoors. This is done by having both air sources come very close together through separate ducts. The air doesn't mix but the air's temperature does.

High performance ERV's will have a heat exchange efficiency rating of about 80% in winter and 30% in summer. Some even have an air quality sensor built right into the switch to trigger the system as needed.



### How they work...

The ERV uses fans to maintain a low-velocity flow of fresh outdoor air into the house while exhausting the same amount of stale indoor air.

Odors and pollutants are quickly removed from your home but the energy used to heat or condition the air is recycled in the heat exchanger and sent back into your home.

ERV's provide the added benefit of reducing the amount of humidity from the incoming air making them a great choice for humid climates as well as offering a core defrost as an option for colder climates.



*Whether it's  
plants, UV  
light, or an  
ERV—you  
need to do  
something  
today!*

### 2 Common types of Air Exchangers...

- 1) The exhaust-only system - this system uses a fan to provide exhaust air while the supply air is not fan powered.
- 2) The balanced system - this system uses a fan-powered exhaust air flow that is designed to equal the fan-powered supply air flow

Those with heat or energy recovery are called HRV's (Heat Recovery Ventilators) while those that transfer heat and moisture are called ERV's (Energy Recovery Ventilators).

### Finding the right size for you...

ERV's are typically sized to ventilate the whole house. To calculate the size you need simply take the square footage of your house, including the basement, and multiply by the height of the ceiling to get cubic volume.

Then take that number and divide by 60 and then multiply by .35 (the minimum air changes per hour).

### A final word...

As more and more of our homes are suffering from "sick home syndrome" and disease and health problem rates continue to soar—looking after the health of the air in our homes is no longer a question of "if" but "must".

Knowing what to do about indoor air quality and moisture problems is a must. We need to become proactive in caring about the quality of the air in our homes.

Whether you choose more plants, a UV light, an ERV, or all 3 - you need to do something today.

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## Upcoming Topics

- ⇒ The Dangers of Mold—1
- ⇒ The Dangers of Mold—2
- ⇒ Is Your Basement Damp?

*For more Remodeling articles see our website—  
[www.RemodelingItRight.com](http://www.RemodelingItRight.com)*



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## The D4 Guarantee

**D1** — Your job will be done for the price specified—there are no surprises or hidden costs.

**D2** — Your job will be completed the way you want it done.

**D3** — If you aren't satisfied with the finished product we'll fix it for free.

**D4**— All work comes with a 2-year guarantee on workmanship

### For more information:

If you're interested in:

- Protecting the value of your home
- Turning your house into your dream home
- Have remodeling questions—needs

**Then you need to call Mike Spruyt  
250-572-4812**