### VINCENT'S NEWS The 'Van-Go' Gallery

OWNER'S CORNER

#### THROUGH MY EYES



"Wherever you see a Vincent's Van Go' you know the job will be a work of art."

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# Did you know...

...that U.V. bulbs in germicidal U.V. air purifiers need to be replaced every year with few exceptions?

The ability of a U.V. bulb to kill germs degrades over time even though the light may still shine.

(PureAiRx U.V. bulbs are an exception, and only need to be replaced every two-years.)

VHP Club member,
Kay Olsen, stopped by
and left me a copy of a
great perspective on
the Coronavirus that
she had received in a
different newsletter.
What struck me was
how relevant this
advice was for today and that it was over
500 years old!

Here is wisdom that Martin Luther – yes, the Martin Luther of the Reformation – shared in a letter with a friend concerning a different plague – the Black Death:

"I shall ask God mercifully to protect us. Then I shall fumigate, help purify the air, administer medicine, and take it. I shall avoid places and persons where my presence is not needed in order not to become contaminated



It's hard to see here, but plexiglass hanging from the ceiling separates Colleen (left) and Amy for safety at work in the COVID crisis.

and thus perchance infect and pollute others, and so

**Continued Page 3** 

# The 3 Indoor Air Contaminants That Can Affect Your Health - Part 2: Germs & Infectious Agents

As introduced in the July issue, there are three main areas of concern of the common indoor air contaminants that can affect your health:

- 1) Particles and allergens (see July issue)
- 2) Germs and infectious agents
- 3) Chemical gases and odors.

In this COVID crisis everyone already has heightened awareness of germs and infectious agents and know that they can be present in our houses. The question is how we can protect ourselves from them and get rid of them. There are only two choices: capture them or kill them.

### <u>Capture</u>: HEPA Filtration, Filters, & Air Cleaners

The only filter that can capture something as small as a virus is a high-efficiency particulate air filter – shortened to HEPA filter. While typically

found in hospitals, residential home HEPA filters are available. However, HEPA filters restrict air flow, and cannot go directly in the return air stream back to the furnace.

Instead, HEPA filters are installed in a 'bypass' loop in the return air ductwork. With each pass, some of the air is shunted into the bypass and is pulled through the HEPA filter

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### Air Filtration Solutions (Continued from Pg.1)

by a separate fan in the HEPA unit before returning to the main air stream. This way the furnace fan motor always has adequate airflow and eventually all the air is purified by the HEPA filter.

'Droplets' containing viruses (what is expelled when someone coughs or sneezes) are bigger than viruses by themselves - and can be captured by high MERV rated filters - 16 is the highest rated, then 13. However, as discussed in the June issue of Vincent's News, the higher the MERV rating the more restrictive it is to airflow which can damage your furnace and increase your energy bill — especially if the return air ductwork is inadequate. For this reason, a polarized media air cleaner that does not restrict air flow and magnetically attracts and captures particles as small as a droplet can be a better choice.

#### Kill: Germicidal U.V. Air Purifiers

HEPA filtration, filters and air cleaners can capture viruses and other infectious agents. To kill them, you need U.V. – the killing radiation provided by ultraviolet light. This is the same radiation

the sun creates that can give you a sunburn and damage your eyes if you stare at it too long. Fortunately, the ozone layer in the upper atmosphere protects us from the majority of the sun's U.V. radiation or life could not survive on earth.

With an Ultraviolet Germicidal Irradiation (UVGI) air purifier we harness the sun's power to kill and put it in your ductwork. Per the EPA, "UVGI air cleaners are designed to use UV lamps to kill or deactivate microorganisms such as viruses, bacteria, and fungal spores and fragments that are airborne or growing on surfaces."

Typically, the application for killing microorganisms growing on surfaces is to keep the air conditioning coil above the furnace clean. (The dark and wet area is a perfect breeding ground for biological growth.) However, if the purpose is to kill microorganisms in the air, the U.V. is placed in the return air so that the air first passes through the U.V. kill zone before going through the filter or air cleaner.

It is important to note that not all U.V. systems are created equal. The most important factor in the ability of a U.V. light to kill germs is the amount of intensity as measured in micro-watts. Most UV systems generate approximately 55 micro-watts of UVC (germicidal) radiation. In contrast, a 16-inch PureAiRx UVC lamp produces a very high output of 180 micro-watts at one meter, which is over three times the intensity of most UVC lamps.

Combined with an efficient filter, a germicidal UV air purifier is a very effective way to deal with the first two areas of concern. Next month we will get into the third area of concern, chemicals, gases, and odors - and how to deal with it.

- Daniel Squires

P.S. Trade-In allowances are available to upgrade an old U.V. system to the more powerful PureAiRx U.V. system to provide you with the highest intensity U.V. system available, 2-year bulb replacement and a lifetime ballast warranty. Call for more info.

### What Our Clients Are Saying...

"It is always a pleasure to have VHP personnel in my home. They are all courteous and efficient. Vincent's Heating & Plumbing is a company that I wholeheartedly trust. Thank you for your service."

- Emilie Amsden, Saint Clair

#### Through My Eyes (Continued from Pg.1)

cause their death as a result of my negligence."

This is spot on advice for our current crisis! When I saw this, I knew I had to share it with you.

One phrase that I want to zero in on is in the second sentence where Luther describes how he will 'help purify the air'. The reason this caught my eye is because it fits right in with the recent series of articles about Indoor Air Quality (IAQ) in Vincent's News.

As the nearby article explains, U.V. can kill viruses. As described, this is a direct assault on these microscopic enemies – it is going on offense. But there is also another especially important health benefit that these IAQ products - U.V. air purifiers, filters and air cleaners, humidifiers, and dehumidifiers - provide.

Have you heard the expression 'the best offense is a good defense'? This is the other and arguably most important benefit that IAQ products provide: improving the air you breathe can help keep your body's natural defenses available to fight off infections and disease – instead of being sidetracked to combat the harmful health effects of indoor air pollution.

In last month's issue I

described some of the symptoms we can suffer because of 'particle pollution' (pollen, dust mites, insulation, etc.): a runny nose, cough, sneezing, congestion, sore throat, asthma, and wheezing. If your body's defenses are already 'spread thin' and depleted fighting off these symptoms, what, if anything, will be left to fight a dangerous virus? And this goes beyond the Coronavirus – every year tens of thousands of people are infected and even die from flu viruses.

Beyond 'particle pollution', the chemicals, gasses, molds, etc. in our indoor environment add to the 'load' of what we must fight off and can trigger an immune response or allergic reaction. Then, when we face a virus, our defenses are busy elsewhere. working to build up resistance from the 'stuff' in the air in our homes. For me, I am in the highrisk group - over 60 years old with other health issues - and I want all my natural defenses available should I become infected!

Years ago, I became familiar with the 'bucket theory' concerning allergies. In this theory, imagine your body is an empty bucket that gets loaded-up with all the things that can cause a reaction. Your body can only

handle so much, as your immune system works to 'drain the bucket'. And when there is more 'stuff' coming in than your bucket can take, it overflows – which is visible as allergy symptoms. Some of these things can also damage the bucket and reduce its capacity. So can the weather, fatigue, emotions, and stress –all of which we have faced in 2020!

Some people may never have allergic reactions because their buckets are bigger - but it doesn't mean that their immune systems aren't working. It means that their immune systems are keeping up with the pollution in their environment that is filling their bucket. It's not that there aren't IAQ issues - it's just that they haven't been overwhelming. The health goal of addressing any indoor air quality issues in our homes is simple: reduce the load - the amount of stuff that our immunities must deal with. Then we aren't fighting on multiple battlefronts when we need all of our defenses in the face of a serious threat. Like COVID-19.

So, like Martin Luther, I want to do everything I can to 'help purify the air' in my home - and not forget to 'ask God mercifully to protect us'.

- Daniel Squires



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#### ATTENTION VHP CLUB MEMBERS:

Are you available on a short notice to have your overdue maintenance visit done? Call and let us know if we can call you when there is a cancellation to help get our 2020 maintenance visit backlog caused by COVID caught up.

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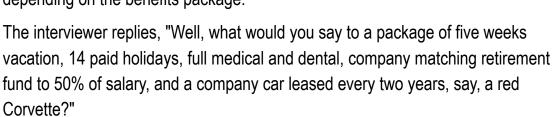
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## Humor Section

At the end of the job interview, the Human Resources Officer asks a young engineer fresh out of college, "What starting salary are you looking for?"

The job candidate says, "In the region of \$125,000 a year, depending on the benefits package."



The engineer sits up straight and says, "Wow! Are you kidding?"

The interviewer replies, "Yeah, but you started it."

