

Ecostratum Insights

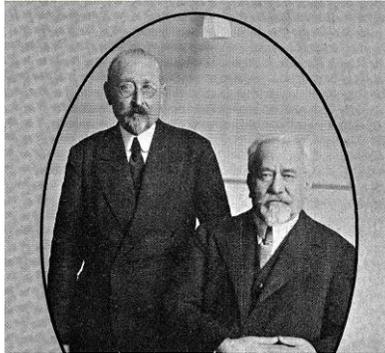
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COVID-19 Indoor Air Quality Asst. Program

What is it? A State of Ohio grant to reimburse the costs of inspections, assessments and improvements to HVAC. These improvements are intended to protect building occupants from spreading COVID-19. Why? Because improved ventilation is an important way to control airborne infections. Who? The program is funded by The Coronavirus Aid, Relief, and Economic Security Act (CARES). Eligibility is currently limited to nursing homes and assisted living facilities that service high risk populations. When? The program is scheduled to end March 31, 2021. But, the coronavirus will continue just like Tuberculosis (TB) has continued. The notable parallels between COVID and TB are that they are both transmitted the same way – secretions of the upper respiratory tract. If history repeats, even after vaccination, ventilation controls coupled with masks will still be relevant. Ecostratum is helping facilities meet their prevention goals. Did you know that the work on TB might still hold lessons for the COVID public health response and vice-versa? https://wwwnc.cdc.gov/eid/article/27/3/20-3456_article



On March 24, 2021, World TB Day will be observed to raise public awareness of the disease where 1 in 7 died between the late 19th century and mid-20th century. In 1921, a vaccine was developed by two French bacteriologists Albert Calmette and Camille Guerin – shown left. TB vaccination is routine today, but infection is still traced.

Ask the Expert?

Q: Do HEPA filters capture viruses and improve IAQ?

A: Yes, but not how you think. Filters work because droplets collide with fibers and stick – even though the pore size is large enough to let them pass. It is temporary adhesion, not straining that works. Now you know why they are not 100% efficient. See link.

<https://www.wsj.com/video/ventilation-is-key-to-battling-covid-heres-why/EC6274D1-B4F0-40DF-A8EC-F9BDA7C5D1A1.html>

Q: How do I know I am entering a building safe from COVID-19?

A: You don't. This is why you must protect yourself with vaccination, social distancing, masks and avoiding crowds. Technology coming: room bioeffluent sensors; supply air ducts with digital readouts; wearable 6-ft. distance sensors.

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Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Infection Control Preventionist (ICP)

On January 13, 2021, the CDC collaborated with the Ohio Department of Health (ODH) to provide free online training to ICPs at Long Term Care Facilities (LTCF). Ecostratum completed this training and plans to assist in infection root cause analysis. Our focus is testing for disease causing microbes that facilitate person to person transmission, then assist with control.

NURSING HOME INFECTION PREVENTIONIST TRAINING COURSE



www.cdc.gov



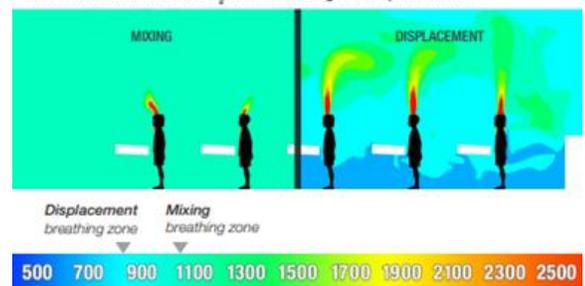
WEARABLES – Social Distance & Contact Tracing

Think about wearing a step counter that is actually a spatial sensor – one that alarms when you are closer than 6 feet to another person and maps where you have been. This geographic information system (GIS) can be used by healthcare workers to support social distancing and contact tracing.

CO₂: The Key IAQ indicator in the COVID Era

The correct amount of exhaled air (CO₂) allowed to accumulate indoors is under review. In short, the tradition of mixing outdoor fresh outside air to dilute stale indoor air is being challenged by a non-mixed method called displacement – which allows *hot air* to rise and leave the room. The advantage is lower CO₂ levels, or bioeffluent which can spread bacteria and viruses. Perfect for the COVID era, but with possibly higher energy costs. Ecostratum is working with math models to balance better IAQ with the energy requirements of air displacement.

Classroom simulation of CO₂ levels - Mixing vs. Displacement



	Yes	No
Commercial Office Application	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Work from Anywhere Application	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Well Building Institute™ Application	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In-Person Learning Application	<input checked="" type="checkbox"/>	<input type="checkbox"/>