



6-11-21 | Episode 629

Ed Light, CSP, CIH

COVID 19 Practice to Research; Best Practices for Schools and More

Our apologies to the IAQ Radio+ listening audience, a few minutes before noon, IAQ Radio+ was notified that today's scheduled guest was unable to appear on the show. Radio Joe and the Z-Man decided to have an open mic show. A big thank you to frequent IAQ Radio+ guests and loyal listeners Ed Light, CIH and Don Weekes, CIH, CSP who jumped in with the assist.

Nuggets mined from today's episode:

Ed's consulting firm, Building Dynamics, combines his public health background and practical approach to resolving IAQ issues with an engineering staff. They do considerable work for school districts, primarily design and construction management of replacement HVAC systems in older schools.

Ed Light discussed his upcoming Webinar June 17 11am ET) on using new Federal COVID funds for schools to most effectively control COVID while also enhancing IAQ and conserving energy.

HPAC Engineering Webinar and Healthy Building papers: [HPAC Engineering - Home | Facebook](#)

[WEBINAR: *FREE* 'LIVE' EVENT: JUNE 17, 11AM ET](#). The heat is on this summer as schools scramble to make best use of new federal COVID funds! Cost-effective IAQ upgrade tips from experts Paul Tseng and Ed Light.

Some of Ed Light's Ongoing research projects:

- He is submitting multiple abstracts to Healthy Buildings, Honolulu:
 1. Record-breaking wet summer exceeds mold growth threshold- potential impact of climate change?
 2. Comparison of MERV 8 and 13 filters and an air cleaning system in an elementary school

3. A critique of research support for implementation of COVID response measures
4. A protocol for classification of building dampness

Ed's review of the scientific literature on COVID and field experience assisting schools with COVID response challenges commonly held views that ventilation, filtration and sanitizing need to be maximized and that additional equipment is needed:

- The infection is most commonly spread within several feet. The virus is airborne for long distances, but has not been found to re-circulate through HVAC systems. Long distance airborne transmission appears to be relatively rare, found only in areas with very poor ventilation. Similarly, fomite transmission appears to be relatively rare.
- For schools, Ed generally recommends identifying and repairing HVAC equipment, addressing areas with very poor ventilation and considering lower-cost measures to enhance ventilation until the pandemic goes away.
- Ed also suggests that the majority of school COVID funds be allocated to occupant infection control. The single best improvement to support better IAQ and energy conservation is to fund an increase in building operations and maintenance (more mechanics and engineers).
- Ed's COVID White Paper (URL at end of blog) provides more detail and supporting information for his position, including links to over 50 COVID research studies:

Radio Joe: *What about the building envelope?*

Ed Light: Sealing gaps which are allowing infiltration of unconditioned outside air improves IAQ.

Comments from today's Chat Log

From Vic Cafaro - What is good indoor air quality? Is it just "not bad indoor air"!

From Derrick A. Denis (CSC) - I used to work in the movie industry. EH&S are not on the radar generally, it is all about the look and sound achieving the vision of the

creator (Director, Producer, Sound Guy, Camera Guy, Lighting Guy, etc.) Only when an actor refuses to work does it get attention.

Vic Cafaro - I believe I heard they used asbestos as a prop for snow! – “Throughout the 1930s, film companies were taking the advice of a well-meaning firefighter who had been concerned about the safety hazard presented by using flammable cotton for snow. Why not get rid of the fire hazard and use asbestos? Movies like *The Wizard of Oz* did just that, covering their stars in pure asbestos that was marketed with names like “Pure White.” The popularity of asbestos as snow spread to home use, and it could still be found in heirloom Christmas decorations. We saw it most famously in *The Wizard of Oz*, when Dorothy was covered in the stuff while she was lying in a field of flowers. If you’ve ever seen the film clip of Bing Crosby singing *White Christmas*, that’s asbestos, too.

Today, the idea of covering someone with asbestos to simulate snow is pretty horrifying, but the dangers weren’t known at the time. In the 1920s, the default material for on-screen snow was cotton, until firefighting consultants warned of the increased risk of fire on a set that was covered with cotton.” Source: <https://knowledgenuts.com/when-asbestos-was-used-as-fake-snow/>

From Michael Miles to Everyone: <https://www.ashrae.org/technical-resources/filtration-and-disinfection-faq>

From Terry Sopher Sr’s comment to t: re your comment that there is little evidence to support airborne spread of Cov-2.: isn’t it possible that the reason for lack of evidence is that Fauci/CDC for 10 mos. denied any airborne transmission & that only ‘close contact droplets’ could spread Cov-2, & THEREFORE NEITHER CDC NOR PUBLIC HEALTH PROS MONITORED or bothered to study/consider whether airborne interior transmission was occurring? Certainly, since then there is rather plentiful research evidence that indoor airborne transmission is REAL.

Ed- respectfully disagree. Although there is consistent evidence for long-distance airborne *exposure*, airborne *transmission has rarely been found, except in areas with very poor ventilation. See the references in my White Paper (link above) and get back to me, Terry, for more discussion on this very important point. Give Tony a break- he’s doing his best!*

From Derrick A. Denis (CSC) Problems in schools.

1. Lack of preventative maintenance.
2. Overoccupancy over design.
3. Closed outside air for energy savings.

From Z-Man Emerging evidence that covid vaccination is causing heart issues in kids and kids that will be required to be vaccinated before schools open. This is a serious issue.

From Z-MAN; How many of you have kids in school? With the concerns over vaccination will they allow their kids to be vaccinated? From Michael Miles: They already have mandated it for my twins Cliff.....they start college in Arizona and PA in August.

From Donald Weekes: There have been scientists since March, 2020 that have been stating that airborne transmission of COVID-19 is a part of the issue. IEQ-GA issued a statement in support of airborne transmission in April, 2020. It took many months before CDC and WHO acknowledged that airborne transmission was a part of the problem. There are good reasons why that took time to change.

From Derrick A. Denis (CSC): Building Engineer is not synonymous with custodian or maintenance person. You send a custodian to service the HVAC you get what you paid for.

-Roundup-

Don Weekes Roundup comments:

- Don Weeks and Ed Light have known each other over 30 years, served on committees together, were roommates in Finland at Healthy Indoor Air 1993.
- [New paper is out by Jack Spengler on virus transmission outdoors.](#)
- Canada is unsure about Covid-19's new variants found in certain communities in Canada, and so most of Canada remains in lockdown. Canada doesn't manufacture vaccines. First shot Covid vaccine shot has been given to many, the second shot is much harder to obtain but are starting to become available.

- Tension in Canada between public health officials and building owners/operators. Public health is focused on testing people prior to entering a building: temperature check, proof of Covid test with last 72 hours. MERV 13 filters installed in many buildings. Building owners and businesses want to meet the standards and reopen.
- Focus should be on reopening schools. Occupants should feel comfortable about particulates and viruses before sending their children into schools. What have we learned, and what can we do differently?
- ACGIH news: 2021 Philip R. Morey Memorial Award, recipient is J. David Miller, PhD.
- Links
 - <https://www.wired.com/story/the-teeny-tiny-scientific-screwup-that-helped-covid-kill/>
 - <https://www.vanityfair.com/news/2021/06/the-lab-leak-theory-inside-the-fight-to-uncover-covid-19s-origins>
 - <https://www.bbc.com/news/world-asia-china-57268111>
 - <https://www.frontiersin.org/articles/10.3389/fbuil.2021.666923/full>
 - [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00869-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00869-2/fulltext)
 - <https://www.sciencedirect.com/science/article/pii/S2666634020300726>

Ed Light's RoundUp comments:

- In comparison with Canada, vaccinations are proceeding very quickly.
- Ed is recipient of a kidney transplant, the one group for whom initial vaccination against Covid has not resulted in production of Covid antibodies. Ed is a voluntary “guinea pig” in a Johns Hopkins study and has received a booster shot.
- Ed continues to wear an N95 respirator when out and about as an industrial hygienist. On one job, COVID was spreading like wildfire among the maintenance personnel he was working with, despite their full compliance with wearing cloth masks. He is not aware of any COVID cases where workers wore N-95's (he has repeatedly tested negative during the pandemic)..
- Links

- <https://www.building-dynamics.com/s/COVID-19-BDL-White-Paper-march-16.pdf>

Z-Man signing Off

Trivia Question: Name the cast member of the original Wizard of Oz movie who was replaced after becoming severely sicked by their makeup?

Answer: Buddy Ebsen

Answered by: IAQ Dotty

Ed's post-show thought- I'm glad Buddy recovered enough to become our beloved Uncle Jed!