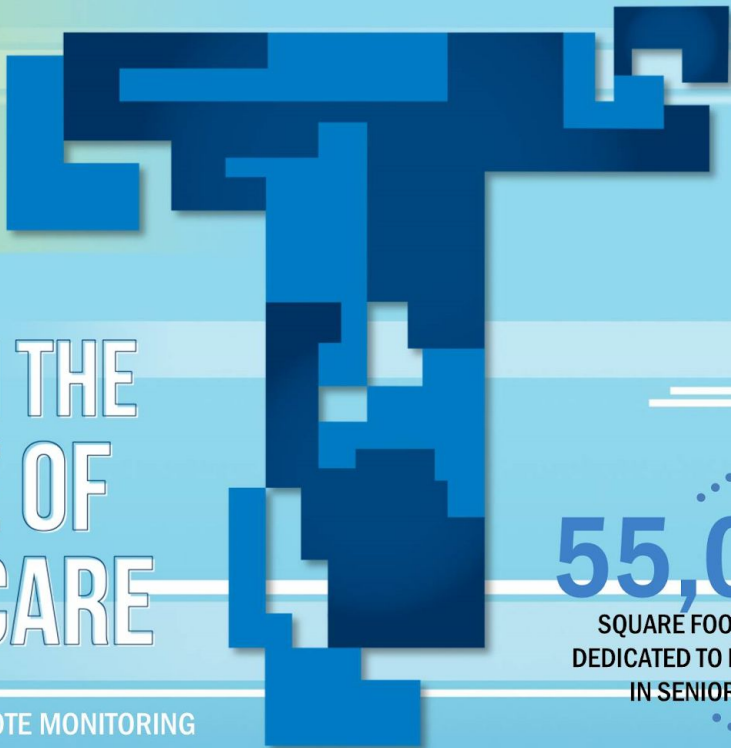


# BRINGING WHAT'S NEXT TO SENIOR HEALTH

Indoor Air Quality

***DIRECT***  
**SUPPLY®**



# FOCUS ON THE FUTURE OF SENIOR CARE

- TELEMEDICINE & REMOTE MONITORING
- PASSIVE FALL DETECTION & GAIT ANALYSIS
- ARTIFICIAL INTELLIGENCE
- MACHINE VISION
- SOCIAL ROBOTICS
- SMART BUILDING DESIGN
- DATA INTEROPERABILITY
- VIRTUAL & AUGMENTED REALITY

WORKING WITH **31** DYNAMIC STARTUPS FROM AROUND THE WORLD

**2,500+**  
STARTUPS VETTED

**CENTRE FOR AGING & BRAIN HEALTH INNOVATION**  
Powered by Baycrest

**55,000**  
SQUARE FOOT CENTER DEDICATED TO INNOVATION IN SENIOR CARE

**SWORD HEALTH**

**BRIGHTLIFE INNOVATIONS**

**the coder**

**3** STARTUPS HEADQUARTERED ON OUR CAMPUS

**12** UNIVERSITY PARTNERSHIPS

**DIRECT SUPPLY INNOVATION & TECHNOLOGY CENTER @ MSOE**

# Environmental Safety Becomes the Focus

*The New York Times*

***'A Smoking Gun': Infectious Coronavirus Retrieved From Hospital Air***

*The Seattle Times*

**COVID-19 outbreak at Bremerton hospital possibly traced to aerosol-generating procedures, report says**

Sep. 3, 2020 at 8:04 pm | Updated Sep. 3, 2020 at 8:19 pm



*The Atlantic*

HEALTH

**We Need to Talk About Ventilation**

How is it that six months into a respiratory pandemic, we are still doing so little to mitigate airborne transmission?

ZEYNEP TUFEKCI JULY 30, 2020

**TIME**

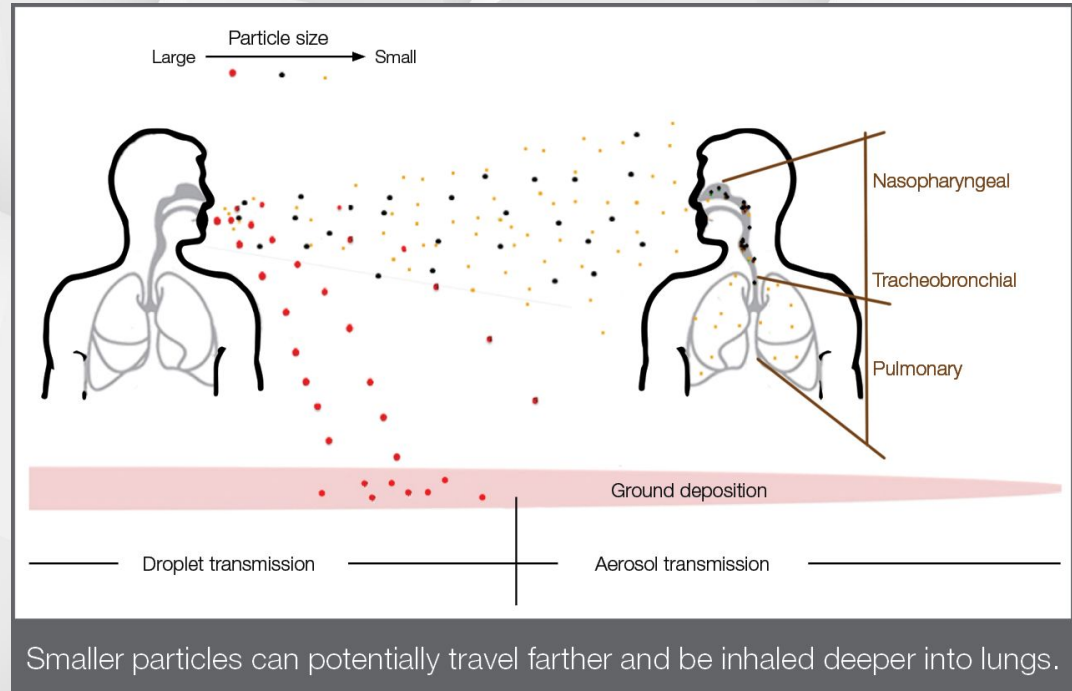
IDEAS • COVID-19

**COVID-19 Is Transmitted Through Aerosols. We Have Enough Evidence, Now It Is Time to Act**

# SARS-CoV-2 Can Accumulate and Linger In Indoor Air for Hours

“[A] large proportion of the spread of coronavirus disease 2019 (COVID-19) appears to be occurring through airborne transmission of aerosols [...] **Aerosols can accumulate, remain infectious in indoor air for hours, and be easily inhaled deep into the lungs.**”

*From “Reducing transmission of SARS-CoV-2” published in Science, May 27, 2020*



# Three Recommended Steps For Confronting SARS-CoV-2 In The Air

Use as much outdoor air as possible

Update your filtering

Look at additional treatment mechanisms

# Increasing Air Changes Per Hour Speeds Up Contaminant Removal

RECOMMENDED GUIDELINES	
AREA	MINIMUM RECOMMENDED ACH
Operating Room	15
Intensive Care	6
LTC Resident Room	2
LTC Dining	4

\* ACH - Air Changes per Hour

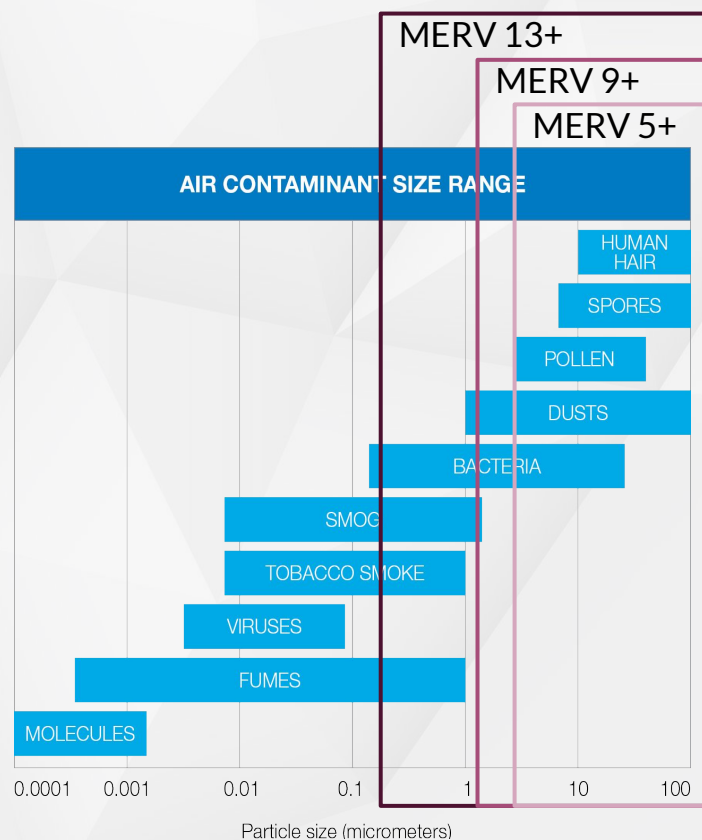
## Upside

- If your HVAC system supports changing outside air mix, this is a relatively low cost and low effort change.

## Downside

- Not all HVAC systems support this change.
- Energy costs will increase as you condition more outside air

# Smaller Particles Require Higher MERV Ratings to Be Filtered Out



## Upside

- Relatively low cost and low effort change

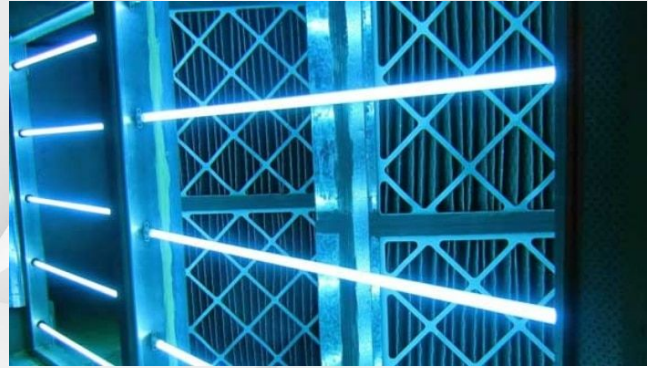
## Downside

- Mechanical wear and tear, higher energy and filter costs

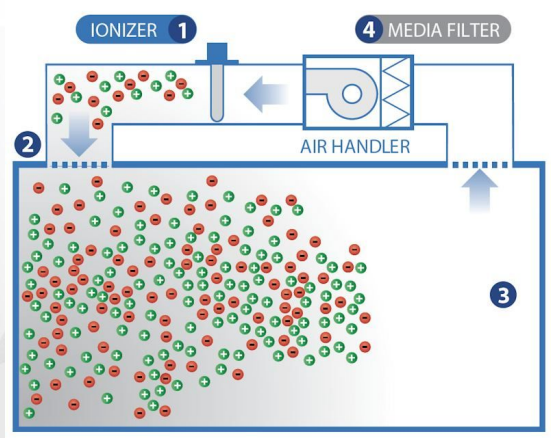
**Additional  
Treatment  
Mechanisms  
put a multiplier  
effect on air  
quality**



HEPA Filter Systems



UV Lighting

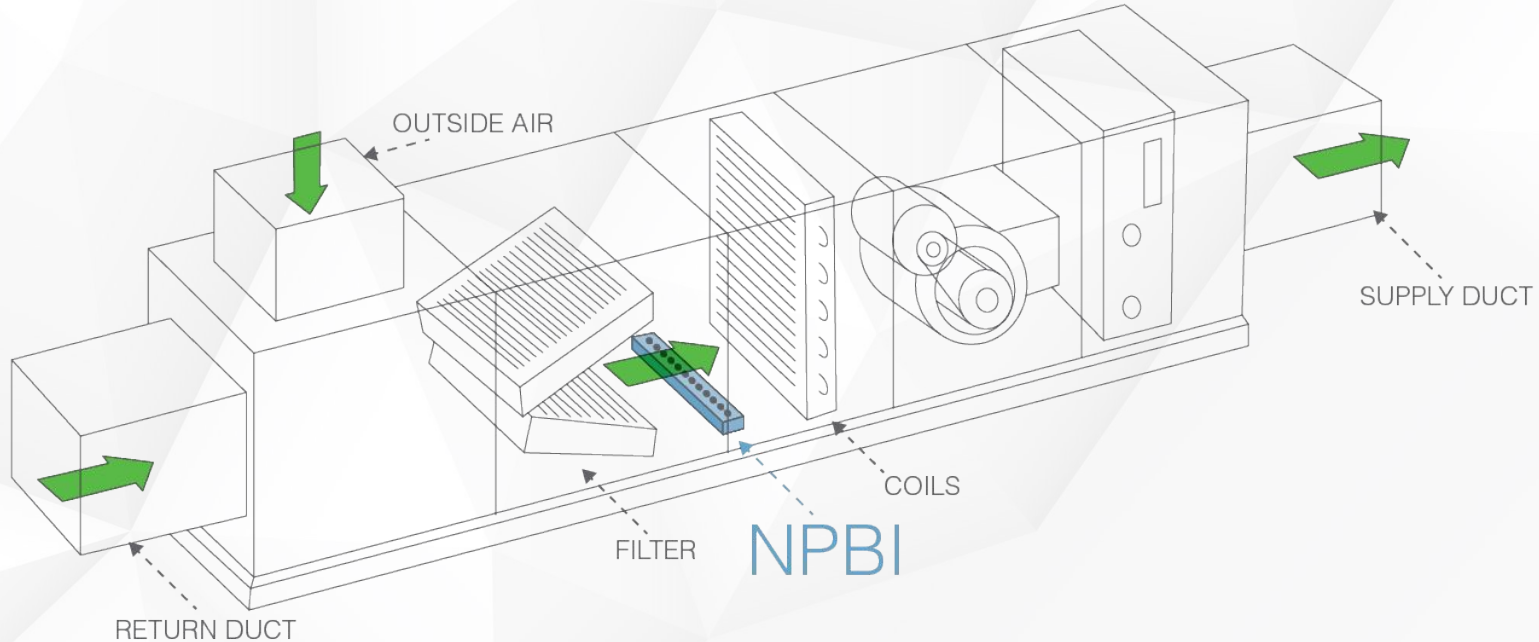


Needlepoint Bi-Polar  
Ionization



# NPBI Treats the Air Everywhere in Your Building

*NPBI emits billions of (+) and (-) ions into the airstream*



Inactivate pathogens | Break apart odors | Clump small particles together to filter out

**Thanks for  
your time and  
questions!**

Please reach out with any questions:

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