

BRINGING WHAT'S NEXT TO SENIOR HEALTH

DIRECT
SUPPLY®



Infection Control and Indoor Air Quality

Break The Chain of Infection

Infections are the leading cause of death in Long Term Care facilities

380,000

Deaths each year
in LTCFs due to
infections

\$2 billion

Costs from healthcare
acquired infections
(HAIs)

As high as

43%

of all COVID-19
deaths have
been in LTCFs

Break The Chain of Infection – Coronavirus

“Respiratory infections occur through the **transmission of virus-containing droplets (>5 to 10 μm) and aerosols ($\leq 5 \mu\text{m}$)** exhaled from infected individuals during breathing, speaking, coughing, and sneezing. ...[A] large proportion of the spread of coronavirus disease 2019 (COVID-19) appears to be occurring through airborne transmission of aerosols produced by asymptomatic individuals during breathing and speaking. **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

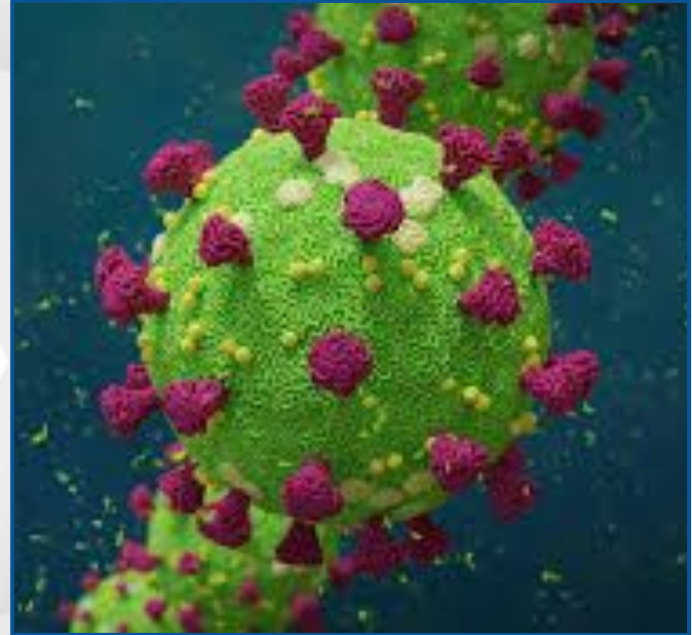
This Technology is a Game-Changer

Needlepoint bipolar
ionization inactivates

99.4%

of SARS-CoV-2

**in 30 minutes
in lab tests***



* Inactivation results based on sensitivity testing conducted by independent third-party testing laboratory using control chambers. Multiple data points are used to formulate performance validation statements. The technology is used in a wide range of applications across diverse environmental conditions. Results in non-lab environments will vary; clients should evaluate their individual application and environmental conditions when making an assessment regarding the technology's potential benefits. For all independent laboratory results, contact your Direct Supply account manager. The use of this technology is not intended to take the place of reasonable precautions to prevent the transmission of pathogens (including COVID-19). Comply with all applicable public health laws and guidelines as well as CDC guidance (<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>).

NPBI™ Can Contribute to Safer Buildings

Flood the air with ions

- Ionized air works in both your HVAC system and where residents live and associates work

Addresses pathogens, particles, and odors

- The only air purification technology that addresses all three

Inactivates bacteria & viral pathogens

- Ions rob pathogens of life sustaining hydrogen molecules

Certified Safe and Ozone Free

- UL 867 and UL 2998 certified to not produce ozone



Indoor Air Quality - Technology Spectrum

| Technology | Bipolar Ionization | Filtration | UVGI (UV-C Lighting) |
|---------------------|--|--|---|
| How it Works | Adds ions to passing airstream, working both in ductwork and in the room | Traps particles in a filter as they pass through | Emits a specific band of UV light (radiation) that kills pathogens |
| Where installed | Most air handlers, including PTACs | Most air handlers, except PTACs | In room, in cabinet, in air handlers |
| Key Difference | Ionized air flows through the building, continuing to clean | Collects a high percentage of what passes through it | Effective at killing pathogens that light hits, but only that it hits |
| Reduces Particles | Yes | Yes | No |
| Reduces Odors | Yes | No | No |
| Reduces Pathogens | Yes | Yes | Yes |
| Disinfects Surfaces | Some | No | Yes |
| Ongoing Costs | No | Filter Replacement | Bulb Replacement |

Bipolar ionization works best alongside filtration: they enhance each other for superior performance

Inactivation Far Beyond Coronavirus

| PATHOGEN | TEST TIME | INACTIVATION RATE | TEST AGENCY | TEST DATE |
|--------------------------------|------------|-------------------|------------------------|-----------|
| SARS-CoV-2 | 30 minutes | 99.4% | Innovative Bioanalysis | 2020 |
| Tuberculosis | 60 minutes | 69.09% | EMSL | 2011 |
| Clostridium difficile | 30 minutes | 86.87% | EMSL | 2011 |
| Norovirus (Feline Calicivirus) | 30 minutes | 93.50% | ATS Labs | 2013 |
| MRSA | 30 minutes | 96.24% | EMSL | 2011 |
| E.coli | 15 minutes | 99.68% | EMSL | 2011 |
| Legionella | 30 minutes | 99.71% | EMSL | 2011 |
| Mold Spores | 24 hours | 99.50% | GCA | 2015 |

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TELS Is Your Best Partner

TELS Offers You a Turnkey Solution



Schedule Your Free Consultation Today!



Consultation

Leverage our technical and Senior Care expertise to identify a tailor-made solution, reducing your risk of airborne transmission.



Execution

Trust the details to TELS® Building Services to make your investment in resident and staff safety a reality.



Support

Leverage our resources to maximize ROI. Your satisfaction is 100% guaranteed. Period.

Call **888-433-3224** or
Email IndoorAirQuality@DirectSupply.com

NPBI™ through TELS is the most effective way to protect your residents and associates

- **COVID-19 is everywhere air flows**
- **Filtration, ventilation, and UV are not enough**
- **NPBI is an effective and safe technology - the only air purification technology proven to inactivate SARS-CoV-2**

Next Steps

- Identify buildings for initial installation
- Collect information about your HVAC systems
- Provide you with detailed pricing estimates





Appendix

Break The Chain of Infection – Coronavirus

THIS TECHNOLOGY IS IDEAL FOR ATTACKING A VIRUS LIKE SARS-COV-2:

- Virus particles in droplets (>5 to $10\ \mu\text{m}$) will either be inactivated or filtered out
- Virus particles in aerosols ($\leq 5\ \mu\text{m}$) will either be inactivated or clump together and then filter out

IF SARS-COV-2 IS IN AEROSOLS, FILTRATION, VENTILATION AND UV MAY NOT BE ENOUGH:

- Aerosolized particles may be so small they linger in the air and don't easily filter out
- This means they linger in the occupied space and don't pass through the HVAC system
- If they don't go through the system, they can't be filtered out or pass by UV lamps

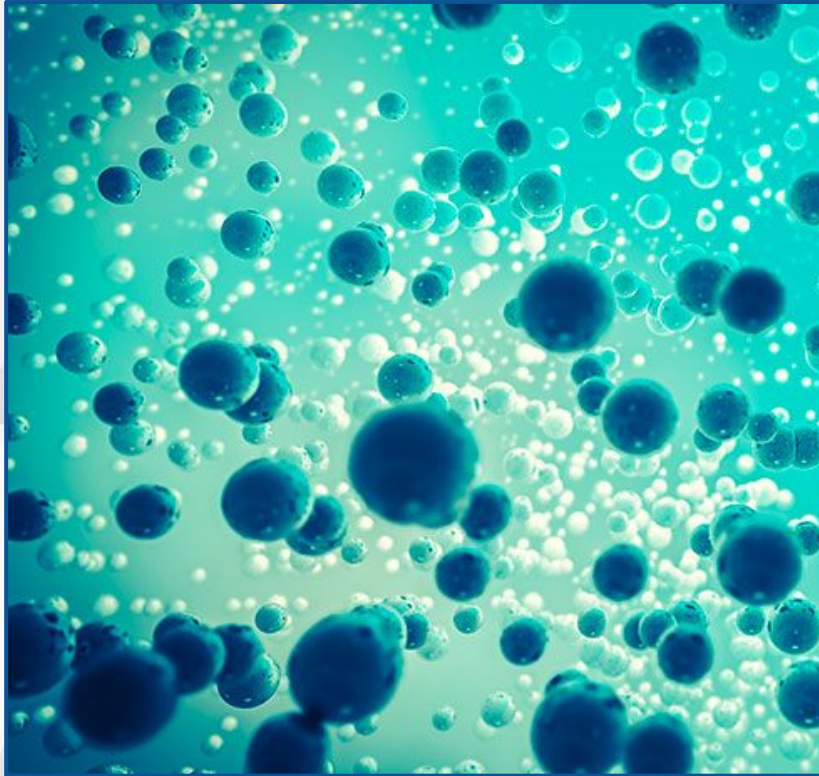
NPBI is the only technology that proactively addresses these concerns.

Indoor Air Quality Matters Beyond COVID-19



- According to ASHRAE, Poor Indoor Air Quality:
 - Increases the risk of adverse health effects, including diseases, cancer and carbon monoxide poisoning
 - Leads to health complaints like eye, nose and throat irritation, headaches, fatigue and lethargy, and rashes
- Infectious Diseases Transmitted by Droplets or via Air:
 - SARS-CoV-2
 - Influenza
 - Pneumonia
 - Tuberculosis
- A High-Risk Population in LTCFs:
 - High average age
 - Use of invasive devices
 - Use of medications
 - Risks of communal living
 - Prevalence of chronic conditions

Three Key Factors That Influence IAQ



- 1 PARTICLES**
- 2 ODORS (VOCS)**
- 3 ORGANIC MATERIAL**
(pathogens, mold, fungus)

Bipolar ionization is one of the few technologies that can effectively address all three at once and enhance the effectiveness of other technologies in use, like filtration.