



Ozone + UVC Shoe Disinfection Technology



Certifications

- ✓ NSF International Laboratories Certified
- ✓ EPA Approved
- ✓ UL Certified
- ✓ CE Certified
- ✓ ISO 9001 Manufacturer
- ✓ Made in the USA



What Are We Helping To Solve?

In 2019, there were 173
Class 1 recalls



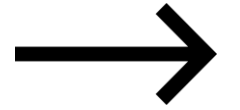
The average food recall costs a company \$10 - \$30 Million. The larger the company, the larger the cost.



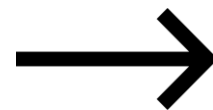
421,000 units of bacteria on a
single pair of shoes



Research found that 96% of shoes had fecal
bacteria on them



The transfer of bacteria from shoe to the floor
is between 90% to 99% with every step



Individual E. coli, Listeria, and Salmonella cells can double every 20
minutes.

At that rate, it would be possible to produce a million E. coli cells
from one parent cell within about 7 hours.



Pathogenic Spread After 24 Hours

Evaluation of Hospital Floors as a Potential Source of Pathogen Dissemination Using a Nonpathogenic Virus as a Surrogate Marker, Infection Control & Hospital Epidemiology (Koganti, Donskey, et al. 2016)



• How The Industry Is Adapting



Tyson:

- Has spent millions to keep employees protected
- Has spent \$120 million in less than a month through bonuses for front line workers to keep production plants open
- CFO Stewart Glendinning said “Making Sure its employees are healthy and able to work is a priority for the company”



Hormel:

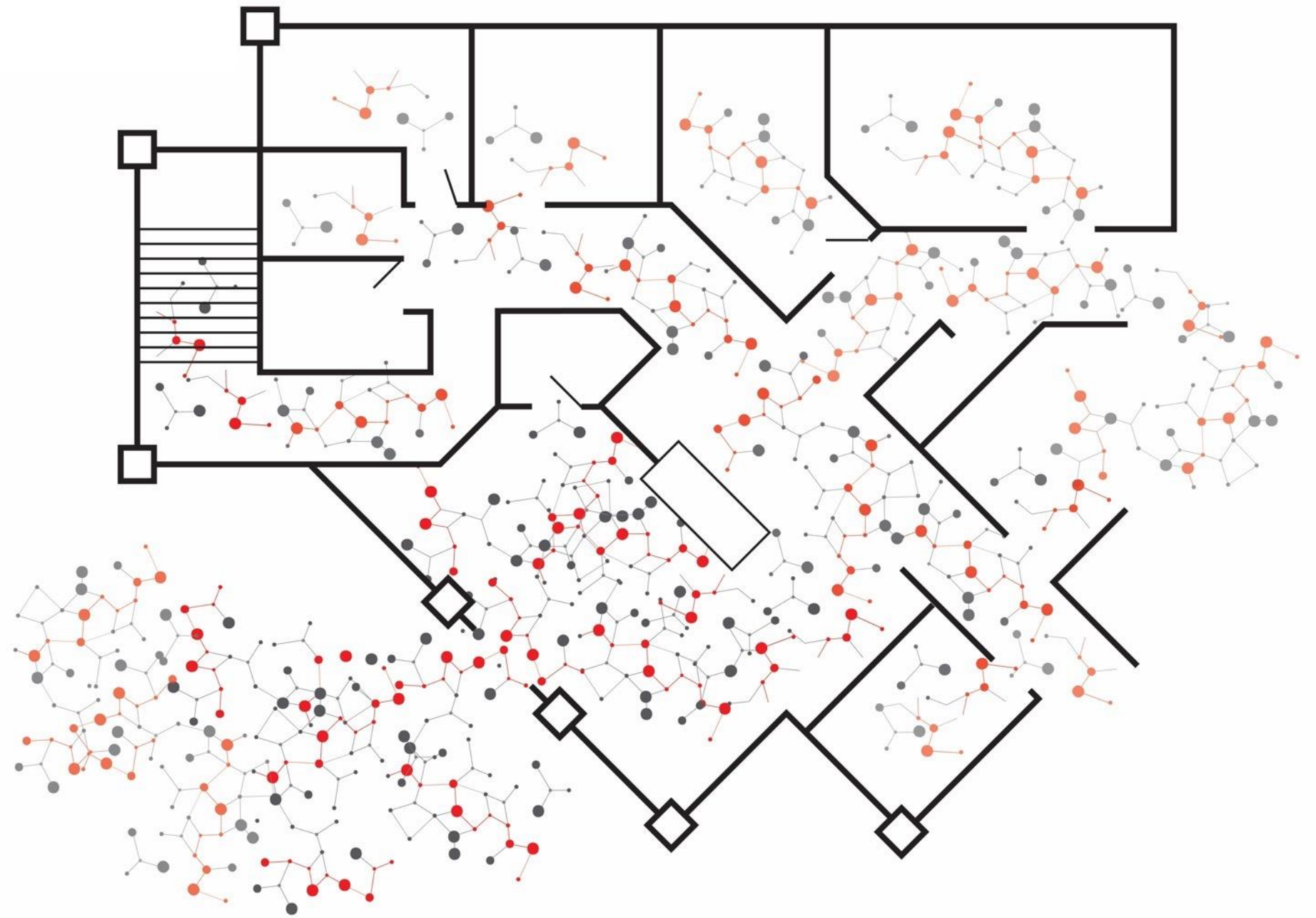
- Profits impacted
- Expects to spend \$80 Million on changes in next six months
- On site testing at plants costing more than \$100,000 have now been implemented

❖ The UVZone Shoe Sanitizing Station

- ✓ Can be set to 6,8, or 10 seconds
- ✓ Plugs into any standard outlet
- ✓ Requires no additional staff
- ✓ Provides continuous 24/7 protection
- ✓ Can be relocated as needed
- ✓ Yields ~ 4.5 million treatments per year
- ✓ Bulb replacement only needed annually

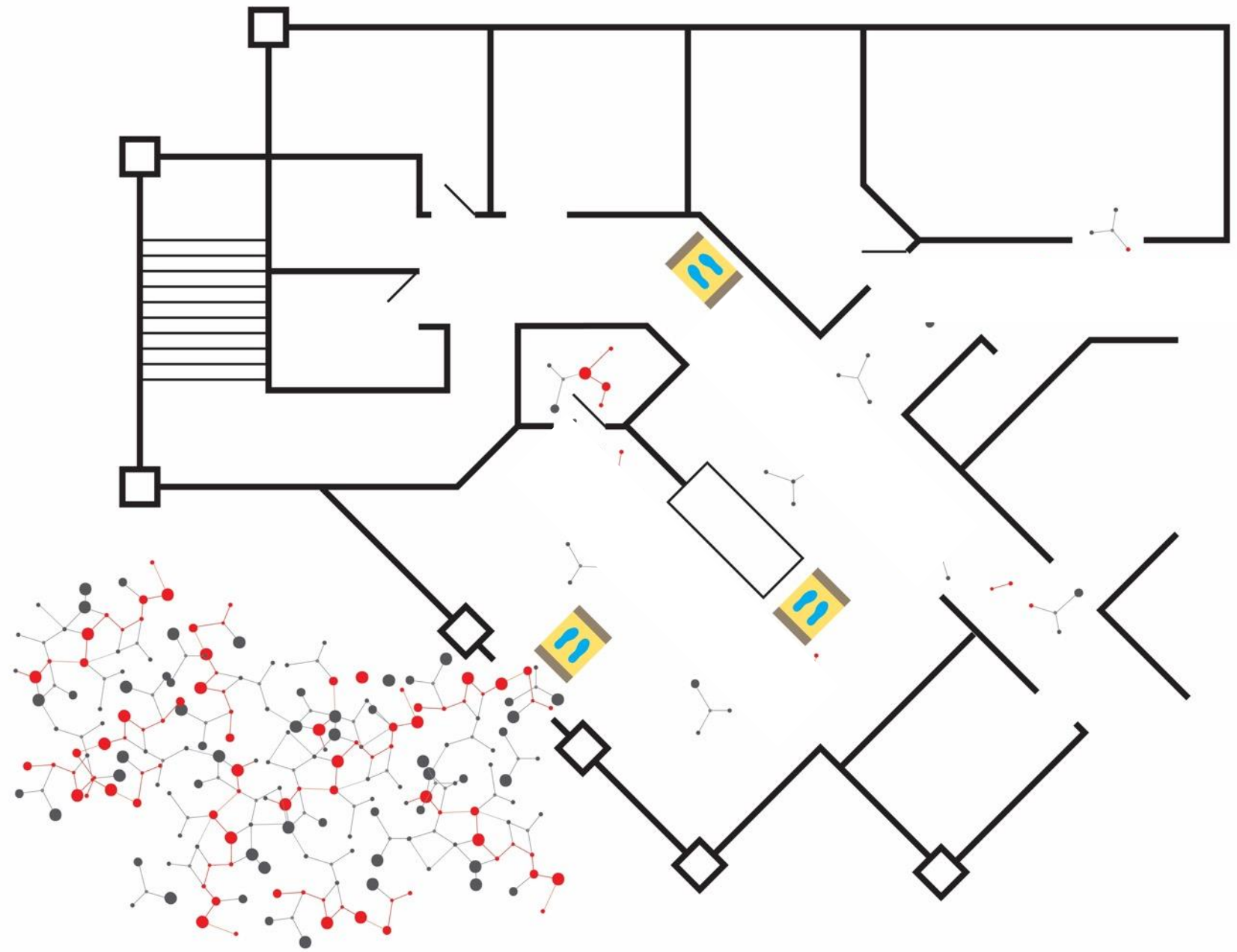


**BEFORE
UVZone**



Anticipated microbial spread of pathogens over time

AFTER UVZone



Anticipated microbial spread of pathogens over time

PathO₃Gen Solutions' Shoe Sanitizing Station



Log And Percent Reductions

Log	Percent	CFUs Remaining
0	0%	1,000,000
1	90%	100,000
2	99%	10,000
3	99.9%	1,000
4	99.99%	100
5	99.999%	10
6	99.9999%	1
7	99.99999%	0



Efficacy of UVC Light Compared to Patented UVZone Technology (Study Performed by NSF International Labs and CREM CO. Labs)

UVC Light				UVZone Technology				
Pathogen Tested	Log Reduction	Percent Reduction	CFU/PFUs remaining	Pathogen Tested	Log Reduction	Percent Reduction	CFU/PFUs remaining	Times UVZone Disinfection is more effective
<i>Staphylococcus aureus (MRSA)</i>	3.66	99.978	219	<i>Staphylococcus aureus (MRSA)</i>	3.80	99.984	158	1.4
<i>Clostridium difficile (C.diff)</i>	0.83	85.209	147,911	<i>Clostridium difficile (C.diff)</i>	3.25	99.944	562	263.0
<i>Enterococcus faecalis (VRE)</i>	2.60	99.749	2,512	<i>Enterococcus faecalis (VRE)</i>	3.87	99.987	135	18.6
<i>Escherichia coli (ESBL)</i>	2.87	99.865	1,349	<i>Escherichia coli (ESBL)</i>	3.56	99.972	275	4.9
<i>Pseudomonas aeruginosa</i>	2.08	99.168	8,318	<i>Pseudomonas aeruginosa</i>	4.62	99.998	24	346.7
Human Coronavirus	2.30	99.499	5,012	Human Coronavirus	3.69	99.980	204	24.5

Comparison performed using results data from UVC ONLY TECHNOLOGY study conducted by a 3rd party laboratory, and OZONE + UVC TECHNOLOGY study performed by NSF Laboratories. Human Coronavirus study was conducted by CREM Co. Labs for both *UVC ONLY* & *OZONE + UVC* TECHNOLOGIES. For more information and full studies visit www.patho3gen.com, or email info@patho3gen.com, or call 1-727-300-1078.



Escherichia coli, Listeria monocytogenes and Salmonella enterica

The UVZone Shoe Sanitizing Station is proven to kill Escherichia coli (E.coli) in 8 seconds

- 3.56 Log reduction and 99.972% reduction
- 4.9 times more effective than UVC light alone
- All three bacteria show similar levels of vulnerability in the same environments and conditions
- All have similar receptors which Ozone + UVC light would attack
- Both Ozone and UVC light have been independently proven to kill all 3 pathogens and approved by the FDA



March 2020 Coronavirus Study Results

Eliminated
Coronavirus in 8
seconds

Study Title: Assessment of PathO3Gen Solutions Footwear Sanitizing Station for Decontaminating Hard, Non-Porous Environmental Surfaces (Shoes)

Organism Tested: Coronavirus 229E (ATCC-VR-740)

Performing Laboratory:

CREM Co, an independent lab in Ontario, Canada

Summary

- Tested the effectiveness of the technology at 6, 8 and 10 seconds
- Three (3) Test Challenges
 - Test 1 Challenge: 3.68 Log 10
 - Test 2 Challenge: 3.73 Log 10
 - Test 3 Challenge: 3.65 Log 10
- Overall Results:
 - Achieved maximum attainable results in both tests at 8 and 10 seconds
 - ✓ 8 Seconds: 0 PFU (Plaque forming unit) remaining
 - ✓ 10 Seconds: 0 PFU remaining

Concluding Statement

“The PathO3Gen Solutions’ Footwear Sanitizing Station completely eliminated the Coronavirus 229E, the EPA recommended surrogate standard for testing the efficacy of all products used to combat COVID-19, in 8 seconds.”

NSF International Laboratory Study 2019

The UVZone Shoe Sanitizing Station is recommended for use at 8 seconds. See results below.

Type of Pathogen tested	Percent Reduction at 8 Seconds	Log Reduction at 8 Seconds
Candida auris	99.9974%	4.58
Escherichia coli (ESBL)	99.9725%	3.56
Klebsiella pneumoniae (CRE)	99.9578%	3.37
Pseudomonas aeruginosa (MDRO)	99.9976%	4.62
Methicillin resistant staphylococcus aureus (MRSA)	99.9842%	3.80
Clostridioides difficile (C. diff)	99.9440%	3.25
Enterococcus faecalis (VRE)	99.9867%	3.87



OUR PATENTED COMBINATION:

OZONE + UVC

» Ozone opens the cell wall

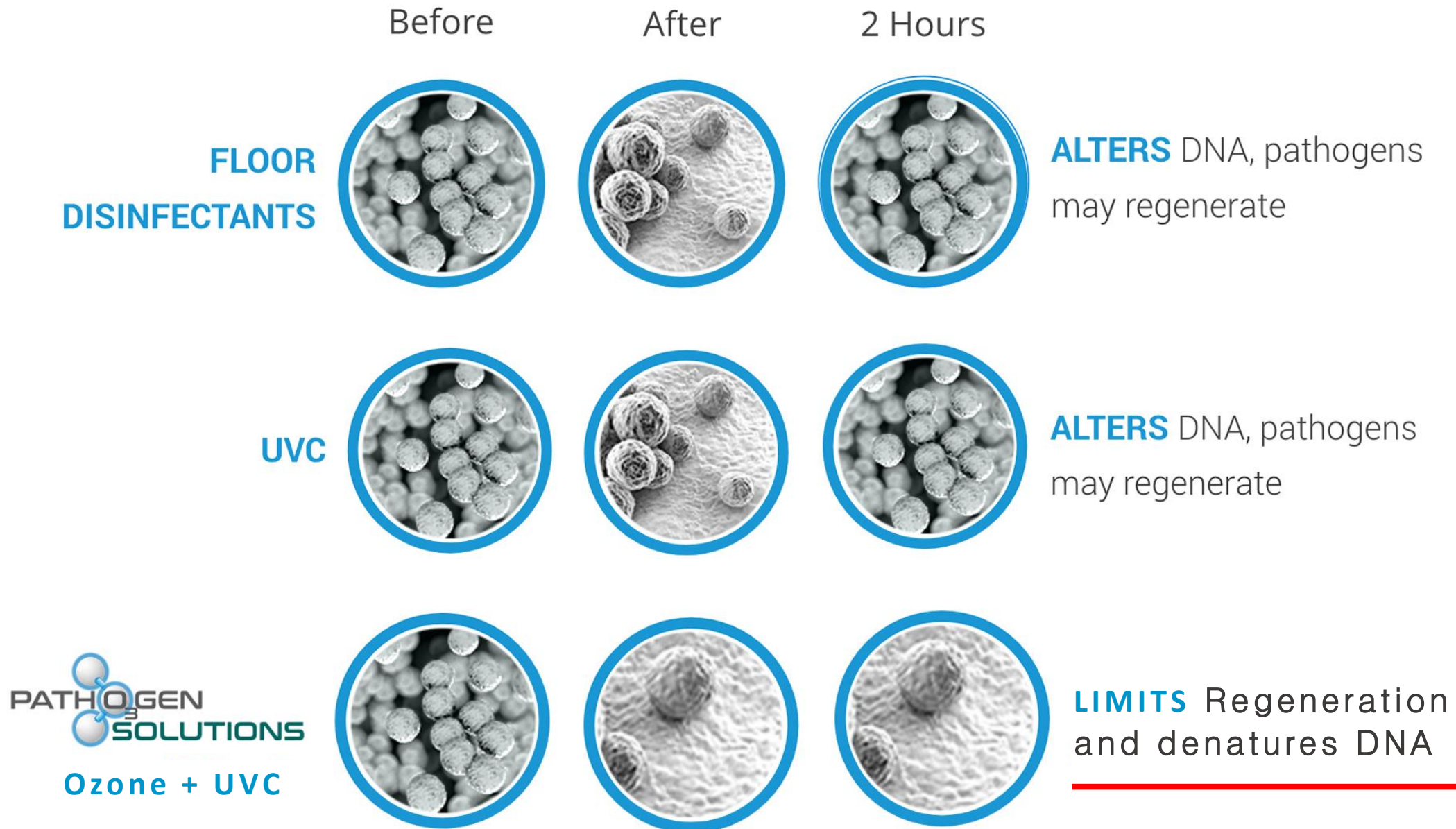
» UVC denatures at DNA level

»»» In Seconds, the Ozone + UVC

- Kills 99.999% of Harmful Pathogens
- Completely Eliminates Coronavirus

KEY ELEMENT: Ozone (O3)

CDC cites, a few hours after floor disinfection, the bacteria count was nearly back to pretreatment levels.



Post-Install Employee Survey Metrics

90% of respondents felt safe that they wouldn't be taking home pathogens on the soles of their shoes when leaving work

97% of respondents thought the shoe sanitizing station was easy to use

89% of respondents agreed the addition of the shoe sanitizing stations made their facility a more attractive working environment



"I love having the peace of mind that I have that extra layer of protection. I have actually read multiple studies for the use of ultraviolet light and the decrease in pathogens and feel that this is warranted with what we walk through in a shift."



"I performed an independent test on my shoes and proved that it worked as it was supposed to. Very pleased with it"



"Using the sanitizer is a very simple way to reduce how infections can be spread throughout our facility. It is also very simple to set up and relocate if it is needed at another location."

How We Support You

- Expert placement advice and training for your staff and facility
- Marketing materials such as customized posters, social distancing floor stickers, and large banners
- Access to our Public Relations team to help distribute key messages to local and national media agencies
- Post-install employee engagement survey & live results dashboard to share with your team
- Financing options to suit any budget



PATHOGEN SOLUTIONS
IN PARTNERSHIP WITH

Your Logo Here

How to Use the Shoe Sanitizing Station

STEP 1
 Step on footprints to begin sanitizing your shoes.

STEP 2
 Stand for a few seconds while the unit eliminates up to **99.999%** of all germs on the bottom of your shoes.

STEP 3
 Step off after the beep. Your soles have just been sanitized by **Ozone + UVC light**, which is 110x more effective than UVC light alone.

Thank You
for doing your part to reduce the spread of harmful germs inside this building!


@Patho3genSolutions
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THANK YOU!

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