



# THE FUTURE OF SANITIZING

Simplified Technology to Fight Challenging Outbreaks

Innovative Healthcare Solutions



# AGENDA

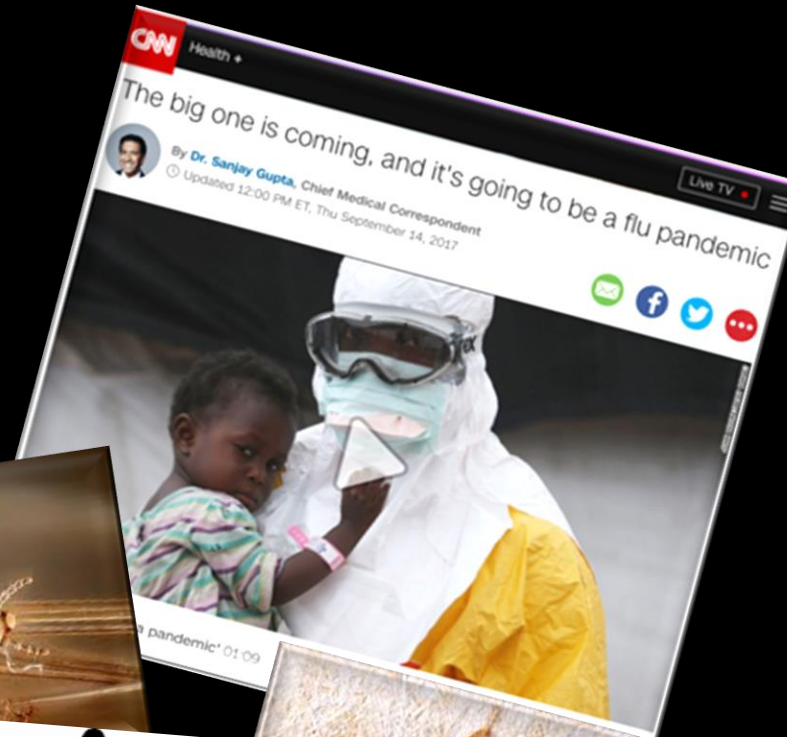
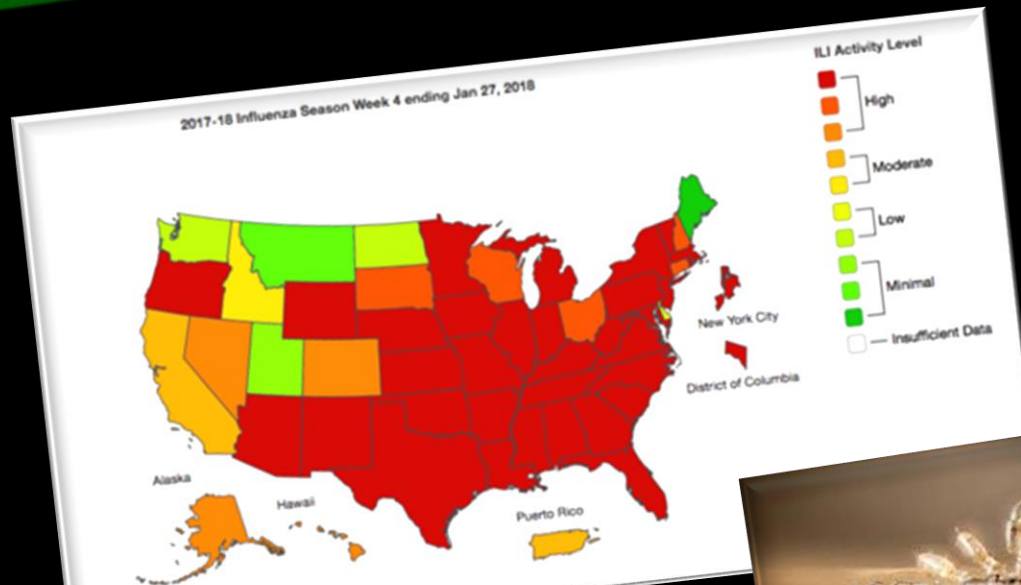
- The Challenge
- The Answer
- The ZONO: Easy as 1...2...3...

# THE CHALLENGE

The Risks, Vulnerability and Consequences of Exposure



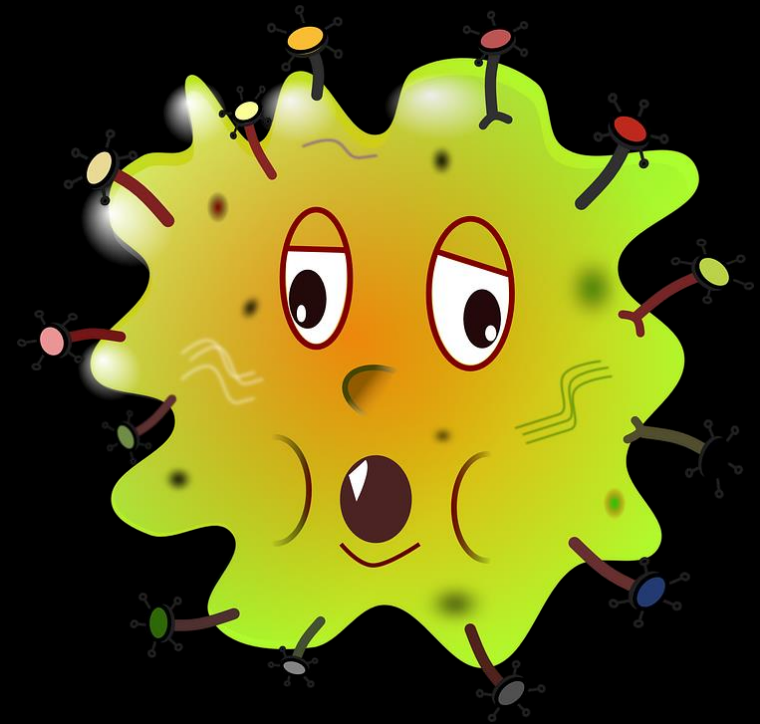
# RISK: OUTBREAKS





# COVID – 19 JUST THE BASICS!

- SARS-CoV-2 is the novel coronavirus that causes the disease COVID-19.
- Coronaviruses are a large family of viruses that are common in people and many different species of animals.
- Coronavirus particles are surrounded by a fatty outer layer called an envelope and have a crown or club-shaped spikes.
- The World Health Organization states that COVID-19 spreads mostly through respiratory droplets.
- It can be spread by both symptomatic and asymptomatic people.
- Currently, there is no vaccine nor cure for the virus.



# VULNERABILITY: ENVIRONMENTS



# DISINFECTING & SANITIZING SURFACES AND OBJECTS

Since 1965 Methods have Included:

- Immersing, rinsing and air drying
- Wiping and/or spraying with chemicals
- Treating with heat
- Dishwashers on sanitize cycle
- Washing machines

# LET'S TALK ABOUT DWELL TIME

- Dwell time is the amount of time the surface is required to be in contact with the chemical for sanitation or disinfection to occur and achieve the proclaimed kill rate.
- Dwell time is found on the labeling of the product.
- Dwell time can vary between different lots of the same product.



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# METHODS DEPEND UPON

- Based on user understanding of “dwell time”
- Are you actually getting every nook and cranny?
- Potentially dangerous to teachers, students and the environment



# WHAT IS THE DIFFERENCE?

## Sanitizing

- 99.9% of bacteria killed
- Reduce, not eliminate, germs to a level that is unlikely to cause disease

## Disinfecting

- 99.99% of viruses killed
- 99.999% of bacteria killed
- Destroy or inactivate infectious fungi and bacteria, not necessarily spores

# HAND WASHING

- Make sinks, soap and towels easily available
- Do at routine times including upon arrival!
- Use good technique
- Make it fun!
- Soap and water is the best!

Happy birthday to you  
Your hands are a zoo  
If you hum this while you wash them  
They'll be cleaner times two



The CDC says that **keeping your hands clean** is one of the most effective things you can do to prevent the spread of diseases like the H1N1 flu

Yale EMERGENCY MANAGEMENT  
<http://www.yale.edu/secretary/emergency/index.html>

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# CONTROVERSIAL ISSUES AROUND SANITIZING AND DISINFECTING

## Gloves

- Hands must be washed even when gloves are worn

## Hand Sanitizers

- Toxic, flammable, expensive and need enough of the sanitizer for required contact time

## Antibacterial Soaps

- Neither required nor recommended



# TECHNOLOGY CAN HELP IN YOUR FIGHT AGAINST BACTERIA AND VIRUSES

The Ozone Sanitizing and Disinfecting Cabinet

# ZONO SANITIZING AND DISINFECTING CABINET: A BETTER APPROACH TO SANITIZING

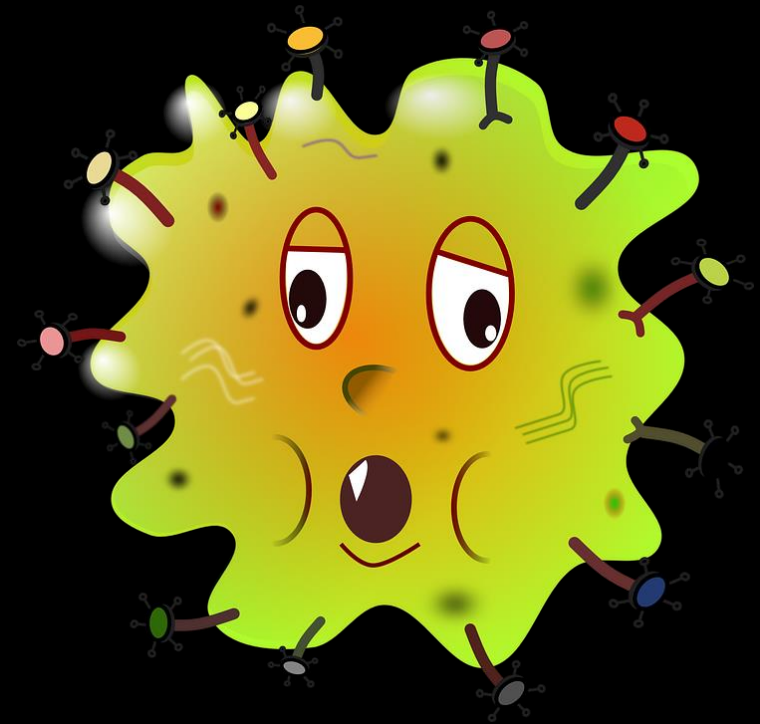
- Ozone sanitizes 99.9% of common bacteria\* and 99.99% common viruses+
- ZONO is produced in a factory that is registered with the EPA
- Independent Studies completed by:
  - Aerobiology Laboratory Associates, Inc. Atlanta, GA
  - University of Georgia Department of Food & Science Technology



\*Staphylococcus Aureus, Methicillin-Resistant Staphylococcus Aureus, Escherichia Coli, Streptococcus Pneumoniae, Streptococcus Pyogenes, Shigella Dysenteriae, Salmonella Enteritidis, and Pseudomonas Aeruginosa on non-porous, semi-porous and porous surfaces. +Norovirus on non-porous surfaces

# COVID – 19 UPDATE

- Independent Study at Georgia Tech department of Biomedical Engineering: Used FDA approved substitute pathogen to measure the effective kill rate of ZONO on Covid -19



# WHY OZONE?

- Gas made by passing oxygen over ultraviolet light
- Eliminates bacteria and viruses
- As a gas, it penetrates soft surfaces
- Dissipates back to oxygen
- Recognized as an EFFICIENT sanitizing agent by both the
  - CDC, Centers for Disease Control
  - WHO, World Health Organization
- Widely used by
  - Municipal Water Supplies
  - Sewage Treatment Plants
  - Meat and Poultry Industries
  - Nearly all bottled water companies



# THE ZONO SANITIZING AND DISINFECTING CABINET A BETTER APPROACH

- The 30-minute sanitizing cycle kills
  - Staph
  - E Coli
  - Norovirus
  - Strep
  - Salmonella
  - MRSA
- The 90-minute heat cycle kills
  - Lice and Nits
  - Bed Bugs



# ELIMINATE BACTERIA AND VIRUSES ON THE FOLLOWING

- Blocks
- Bike helmets
- Books
- Crayons
- Clothing and Costumes
- Large Play Sets
- Stuffed Animals
- Car Seats
- Chairs
- Cots or Mats
- Crib Mattresses
- Easels
- High-Chairs
- Artificial Potted Plants
- Rugs
- Technology such as phones, head-phones and computers



REMEMBER...MORE IS BETTER

Disinfect/Sanitize ...more items, more  
often

# INVASIVE PESTS





# LICE AND NITS

## Lice

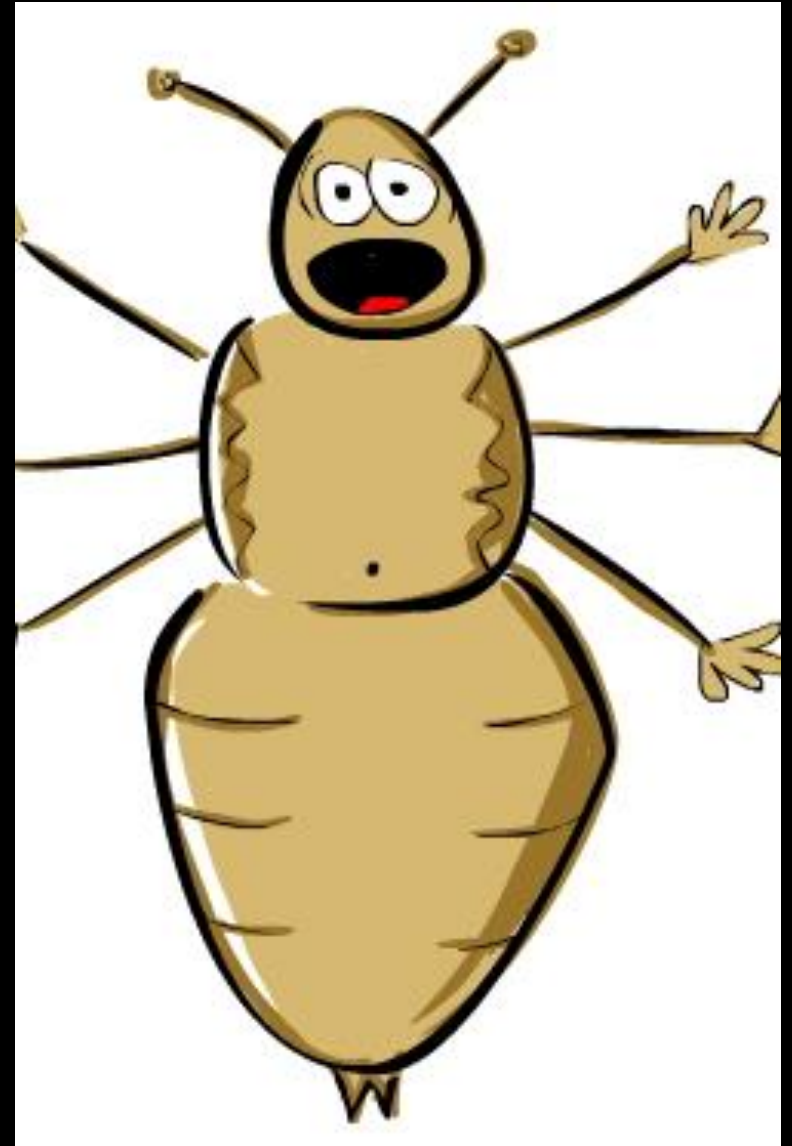
- Six-legged parasites that are
- About the size of a sesame seed.
- Live on the human head

## Nits

- Eggs that females glue onto hairs near the scalp

## Elimination

- Most effective method is use of heat at 131° F for 30 minutes
- Use: clothes dryer or commercial drying cabinet



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# BED BUGS

## Bed Bugs

- Small, wingless insects
- Feed by hematophagy (blood of warm-blooded animals)

## Elimination

- Most effective method is use of heat at 131° F for 30 minutes
- Use: clothes dryer or commercial drying cabinet



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# THE ZONO SANITIZING AND DISINFECTING CABINET

Easy as 1...2...3...





# ZONO DETAILS

- Size: About the size of a commercial refrigerator
- No venting required
- Plugs into a regular electrical outlet
- Uses about 3-5 cents of electricity per sanitizing cycle
- Uses regular tap water and less than ½ ounce per cycle
- The racks become the new “yuk” buckets for your classrooms.
- It is non-toxic. Items that are sanitized in the ZONO come out dry and do not require rinsing! They can go right back into the classroom.
- Parent Engagement – car seats, strollers, blankets, etc.

# ZONO STATISTICS

- 700+ Centers utilizing ZONO in their disinfecting and sanitizing procedures
- Customer comments regarding ADA...
- Reduced spending on substitute teachers
- Decrease in “chemical” spending
- Reduced stress for teachers allowing for increased focus on
  - Lesson plans
  - Parent Engagement
  - Family visitation

# INFORMATION

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\*Norovirus on non-porous surfaces. Staphylococcus Aureus, Methicillin-Resistant Staphylococcus Aureus, Escherichia Coli, Streptococcus Pneumoniae, Streptococcus Pyogenes, Shigella Dysenteriae, Salmonella Enteritidis, and Pseudomonas Aeruginosa on non-porous, semi-porous and porous surfaces.