Infection Prevention With i-fiber®

- What are the Coronavirus’ and best practice guidelines from the CDC
- Light weight, ergonomic, and patented 4-D Cleaning Systems®
- A proven, time saving, systematic approach to cleaning
- Processes resulting in cleaner, safer facilities
- Advanced, hands-on training programs
- Proven cost savings
What are Coronaviruses?

Coronaviruses are RNA enveloped viruses; there are six known human coronaviruses.

Coronaviruses are zoonotic, meaning they are transmitted between animals and people.

SARS and MERS also were coronavirus (discovered in 2019) – these originated in bats, civets and camels then spread to humans.

COVID-19 is a new strain of coronavirus. The source is most likely from an animal to person, now indicating a person to person spread.

Many patients at the epicenter of the outbreak in Wuhan, Hubei Province, China had links to a large animal market. This virus rapidly spread person to person, which caused a worldwide pandemic in the winter of 2020.

Click here to see in real-time the global Illness data.

No vaccine is available as of March 2020 for COVID-19. Prevention has focused on standard infection control practices to reduce exposure to and transmission of illnesses. The main focus worldwide has been limiting movement and interaction between people.

Standard recommendations to prevent infection spread include regular hand washing, covering mouth and nose when coughing and sneezing, thoroughly cooking meat and eggs. Avoid close contact with anyone showing symptoms of respiratory illness such as coughing and sneezing.

Information from this page obtained from the CDC website: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html
What are the symptoms?
Symptoms of COVID-19 are like other upper-respiratory infections, including fever, cough, sneezing and difficulty breathing to full pneumonia. The symptoms can lead to death.

How does the Virus spread?
The best way to prevent illness is to avoid being exposed to the virus, which is thought to spread mainly from person to person.

- This can occur from people within 6 feet from one another
- This happens through respiratory droplets produced when an infected person coughs or sneezes
- Droplets can land in mouths or noses of others nearby or be inhaled.
- Saliva with the infected virus from a person is left behind on a surface and another person contacts and ingests a virus from that saliva.

COVID-19 Now a Pandemic...
What does that mean?
On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the WHO (World Health Organization). A pandemic is a global outbreak of disease. Pandemics happen when a new virus emerges to infect people and can spread between people sustainably. Because there is little to no pre-existing immunity against the new virus, it spreads worldwide. This is the first pandemic caused by a coronavirus.

The virus that causes COVID-19 is infecting people and spreading easily from person-to-person. Cases have been detected in most countries worldwide and community spread is being detected in a growing number of countries.

Reference
Cleaning Viruses 101

Information on cleaning and killing bacteria, viruses and fungus is commonly misunderstood. Following is some general information for you to better understand the differences in cleaning, sanitizing and disinfecting. The information is pretty straight forward, but it’s good to know what bacteria you are actually killing to best protect the people you’re being trusted to provide a healthy living facility.

**Cleaning** Cleaning surfaces generally removes dirt and soil from the top of a surface but leaves behind many of the allergens and microorganisms. Most cleaning tools being used for cleaning are spreading the matter around and not removing it. To remove bacteria, you must use a proven microfiber with a 99.9% bacteria removal rate.

**Sanitizing** Sanitizing surfaces is meant to reduce, not kill, the occurrence and growth of bacteria and viruses. A sanitizer may reduce the number of bacteria present by 99.9% (3 log reduction) if stated on the label. Sanitizing is better than cleaning alone, but still leaves open cross contamination and the opportunity for growth of bacteria, viruses & fungus. The FDA (Food & Drug Administration) generally approves sanitizers (EPA gets involved for kill claims in disinfecting).

**Disinfecting** Disinfecting surfaces kills viruses, bacteria and fungus, but is dependent on dwell time and the log reduction of the EPA (Environmental Protection Agency) registered disinfectant being used. The higher the log reduction of the disinfect the less bacteria that is left behind. The EPA must approve disinfectants, their log reduction and dwell time required to kill bacteria. Disinfecting works best if you clean the surface first.

**Dwell Time** Dwell time is the amount of time the disinfectant is required to remain wet on the surface in order to kill bacteria, which means the surface being cleaned must remain wet for the time stated on the label. If the surface dries before the dwell time stated on the disinfectant EPA registered label, then the disinfectant has not killed the bacteria.

Reference
Sanitizing - [https://www.fda.gov/media/136118/download](https://www.fda.gov/media/136118/download)
Cleaning Viruses 101

Log Reduction Log reduction is a mathematical term used to show the relative number of live microbes eliminated from a surface by cleaning and disinfecting. Log Reduction defines how well a disinfectant kills pathogen.

<table>
<thead>
<tr>
<th>Log-Reduction</th>
<th>Kill Claim</th>
<th>Microbes Eliminated</th>
<th>Bacteria Alive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 log-reduction</td>
<td>90%</td>
<td>1</td>
<td>1,000,000</td>
</tr>
<tr>
<td>2 log-reduction</td>
<td>99%</td>
<td>100</td>
<td>100,000</td>
</tr>
<tr>
<td>3 log-reduction</td>
<td>99.9%</td>
<td>1,000</td>
<td>10,000</td>
</tr>
<tr>
<td>4 log-reduction</td>
<td>99.99%</td>
<td>10,000</td>
<td>1,000</td>
</tr>
<tr>
<td>5 log-reduction</td>
<td>99.999%</td>
<td>100,000</td>
<td>100</td>
</tr>
<tr>
<td>6 log-reduction</td>
<td>99.9999%</td>
<td>1,000,000</td>
<td>1</td>
</tr>
</tbody>
</table>

For example, a 5 log-reduction, means lowering the number of microorganisms by 100,000-fold, that is if a surface has 100,000 pathogenic microbes on it, it would be reduced to 100.

1 microorganism doubles every 20 minutes, which means in 1 hour, 1 microorganism will become 8.

This means in 8 hours 1 microorganism will become 1,000,000 microorganisms. This is why it is so important to have a very high log reduction, reducing the number of bacteria present to multiply.

PreTreating i-fiber® vs Disposable Wipes to Disinfect

- PreTreating i-fiber® products hold more liquid than disposable wipes, allowing for proper dwell time
- Disinfectant must remain wet on the surface for the required dwell time to disinfect according to the label’s log-reduction (typically 5-10 minutes)
- i-fiber® products using Trio-Split Technology™ pick up 99.9% bacteria and soil by themselves vs disposable wipes, which just apply solution and pick up dirt
- i-fiber® products are reusable after laundering vs disposable non-biodegradable wipes

Infection Prevention with i-fiber®

Patented Trio-Split Technology™ Intelligent i-fiber® has many features over other microfiber:
- Reduces Bacteria by 99.9% - by itself (no disinfectant)!
- Does not absorb Quat Disinfectant like cotton!
- Designed to easily release soil, dirt and pathogens in normal machine processing!
- Test results to prove it - Independent lab test shows the CPI i-fiber® picks up 99.9% bacteria.

Vinyl tile and stainless-steel surfaces were used with two types of bacteria to measure the average number of bacteria on the surface before and after (=M). One example below:

1. Bacteria ①: Staphylococcus aureus ATCC 6538
2. Bacteria ②: Escherichia coli ATCC 25922

The Vinyl Tile Test

<table>
<thead>
<tr>
<th>Before with Bacteria ②</th>
<th>After CPI i-fiber®, 1 swipe with 2.0kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>M=1.45 x 10⁴</td>
<td>M=&lt;10, 99.9% bacteria pick-up rate</td>
</tr>
</tbody>
</table>
How to Clean & Disinfect?

Systematic PreTreat approach to cleaning & disinfecting assures no cross contamination!

Top 10 Touch Points to Cleaning Regularly

- Sink with eDOUBLe Y
- Cafeteria table with eTROWEL G
- Desk & chair back with eTROWEL B
- White board with eTROWEL Y
- Door handle with eDOUBLe Y
- Light switch with eDOUBLe Y
- Counter-top with eTROWEL Y
- Sink with eDOUBLe R
- Towel dispenser with eDOUBLe R
- Mirror with eDOUBLe R
What is Microfiber?

Microfiber is a synthetic fiber less than one denier, which is 1/100 the size of a human hair. This fiber is then split for cleaning applications, so it can hold germs, soil and liquids. This tiny fiber is bundled together like a microscopic rope to make the strands that you can see with your eye. These complex fibers are then woven into the products for cleaning.

Debris Channels - Intelligent Fiber keeps these channels open allowing more area to gather germs, soil and spread disinfectant for both PreTreat wet and i-fiber dry applications.

Mesh Backing - A flow through mesh backing PreTreats mops and pads in seconds, allowing dirt and soil to easily wash through both sides and reduce laundry cost & BTU’s by up to 60%.

Guaranteed for 1,000 wash cycles Intelligent Fiber Trio-Split Technology™ is built to clean better and last longer.

TRIO-Split™ Microfiber...

- Reduces water and chemical consumption up to 95%
- Reduces bacteria up to 99.9%
- Saves time and money
- Looks cleaner and more presentable
Why Is i-fiber® Microfiber Better?

Unlike other microfiber, which is only split once, Intelligent Fiber Trio-Split Technology™ goes beyond the standard process splitting its microfiber three times. This allows the microfiber to hold onto more germs, dirt, debris and cleaning solutions, which increases productivity allowing i-fiber to go further!

Microfiber vs. Traditional (cotton)

The debate has been settled and microfiber is the winner, hands down. When compared to the traditional mop and bucket, microfiber is the clear choice. Microfiber cleans better, lasts longer and is more cost effective. When microfiber is laundered, it easily releases the germs and soil during the rinse/agitation cycles, allowing for a cleaner and renewed cleaning surface.

Cotton Absorbs, Microfiber Holds

Most importantly, cotton absorbs liquids INTO the fiber while microfiber holds liquid, germs and soil on the OUTSIDE of the fiber.
What Is Clean and How To Monitor?

Using ATP and What Is It?

ATP is an abbreviation for Adenosine Tri-Phosphate. It’s the universal energy carrier present in all living cells. It can be found in all organic matter, including human, animal and vegetable cells. Even body fluids, insects, bacteria, yeast and molds.

- After cleaning, all sources of ATP should be significantly reduced
- Detection of ATP on a surface of water indicates the presence of biological matter invisible to the naked eye
- It is measured by a natural light-emitting biological reaction in a process called bio-luminescence.

Benefits of ATP monitoring

- Instant access to the cleanliness of surfaces, allowing immediate corrective action to be taken
- Rapid testing method, minimal cost and simple to use
- Enhance cleaning and sanitation training with immediate feedback
- Optimize cleaning chemicals and procedures
- Standardize the level of cleanliness

What Is Slip Alert and Why Is It Important?

- Standardized scientific test – uses the rise and fall of a given shoe resistance and measures distance traveled
- Measures results of removing more germs that can become airborne and ingested.
- You will see the difference with Trio-Split Technology™ compared to other mops!
Simple System of Team Cleaning

- Cleaning Only Trolley
  ✔ One unit – One worker
  ✔ 4D Clean microfiber products
  ✔ PreTreating i-fiber
- Soiled cloth and mop bag
- Small trash storage
- Large wheel goes up/down steps

4D Cleaning Systems™ are interchangeable, microfiber cleaning tools with specific processes designed for cleaning specific areas.

1D
Floors & Baseboards
High productivity in clear and obstructed areas.

2D
Walls & Furniture
Using 4D Cleaning Systems™ allows more time for cleaning other surfaces, such as desks, partitions, dispensers, etc. that many times are left uncleaned.

3D
Ceilings - Fans, Vents & Lights
4D Cleaning tools are specifically designed to clean in areas not normally addressed. Ceiling tiles, fan blades, vents and lighting are just a few examples.

4D
The Air
Remember, unlike other conventional cleaning tools, Trio-Split™ microfiber traps and holds onto the dust and dirt while cleaning. This limits airborne dust and dirt particles.

Why i-fiber® 4D Cleaning Systems?

1D
Floors & Baseboards
High productivity in clear and obstructed areas.

2D
Walls, Furniture & Fixtures
Using 4D Cleaning Systems™ allows more time for cleaning other surfaces, such as desks, partitions, dispensers, etc. that many times are left uncleaned.

3D
Ceilings - Fans, Vents & Lights
4D Cleaning tools are specifically designed to clean in areas not normally addressed. Ceiling tiles, fan blades, vents and lighting are just a few examples.

4D
The Air
Remember, unlike other conventional cleaning tools, Trio-Split™ microfiber traps and holds onto the dust and dirt while cleaning. This limits airborne dust and dirt particles.
i-fiber® Disinfecting Kit

Microfiber PreTreat System™

Pick up germs and soil better than any other product with our patented system of products and Trio-Split Technology™ i-fiber®.

Use the powerful built-in eTROWEL® black-light to check your work for germs that may have been left behind.

PreTreat our intelligent i-fiber® products that has a 99.9% bacteria kill rate to leave surfaces clean and safe.

WHAT'S INCLUDED IN THE KIT?

1. eTROWEL™ Black-light Powered Pocket Trowel
   Patented pocket system with flexible backing allows consistent cleaning pressure of flat and curved surfaces. Easy pad removal without touching soiled pad, built-in scraper and color coded handles. (#eTROWELb) Qty 1.

2. eWAVE TRIO Split™ i-fiber® Pad
   Intelligent i-fiber® pad Trio-Split Technology™ patented product with pocket system and mesh backing allows for easy PreTreating disinfectant and assurance of removing germs during laundering. (#ETROWELPAD B/R/G/Y) Qty 12, colors and type can vary.

3. eDOUBLE™ Two-Sided i-fiber® Cleaning Cloth
   Intelligent i-fiber® cleaning cloth. Easily PreTreat this cloth, with 400 gram general purpose cleaning gray i-fiber® on one side and non-streaking green window i-fiber® on the other. (#eDOUBLE B/R/G/Y) Qty 24, colors and type can vary.

4. PTMINI PreTreat Bucket
   3.5 gallon bucket with sealing lid. Holds necessary eDOUBLE® Cloth and eTROWEL® Pads to disinfect. (#PTMINI B/R/GN/GY) Qty 1, color.

5. Dilution Mixing Bucket
   Easily dilute the i-fiber® Trio-Split Technology™ with water and/or your desired disinfecting cleaning solution. (ANTA125 B/R/G/Y) Qty 1 color.

Note: May substitute other i-fiber® color & types in this kit.
How to PreTreat i-fiber®

1. **Place Cloths and Pads into Bucket**
   Place qty 24 eDOUBLE™ Cloths in the bucket. Then, lay qty 12 eTROWEL™ Pads (mesh side up) on top of the cloths.
   
   **Note:** May substitute other i-fiber® color & types in this kit.

2. **Fill Dilution Mixing Bucket**
   Fill to the 36 mark (24 cloth+12 pads) of the eTROWEL® (right side column) with your desired disinfecting cleaning solution. Remember that i-fiber® reduces bacteria to 99.9% by itself with just water.

3. **Mix Solution with i-fiber**
   Pour all of the solution evenly over the top of the i-fiber products.

4. **Seal the Bucket and Flip Over**
   Place the lid tightly onto your PreTreat Bucket and turn the bucket over for 1 minute. This allows the solution to soak through and charge the cloths and pads. Then, turn the bucket right-side up.

Now you are ready to clean!

**Note:** This quick PreTreat method is used without the dilution bucket utilized in commercial applications.
Our Innovation Center is your space to visit. Bring customers or just come yourself to learn how to clean using best practices with industry standards. We have 25 rooms demonstrating different flooring and 4D Cleaning surfaces. It’s your space - Come and Enjoy!
The i-team® Difference

Our five key principals shape everything we do at i-team® North America. They are at the very center of our organization and a contributing factor in every decision we make.

Innovate – Deliver state of the art products that improve productivity with easy worker functionality
Quality – Engineer systems and products for ultimate client total cost of ownership realization
Trust – Enrich knowledge and passionate work ethics while developing client intimacy
Health – Provide cleaner, healthier facilities for everyone worldwide
People – Empower teams to enrich their lives with high character and integrity