

Cleaning, Disinfecting and Sanitizing in Food Service

Funded by the

Toxics Use

Reduction Institute

Presentation by

*Brian Corbley
and*

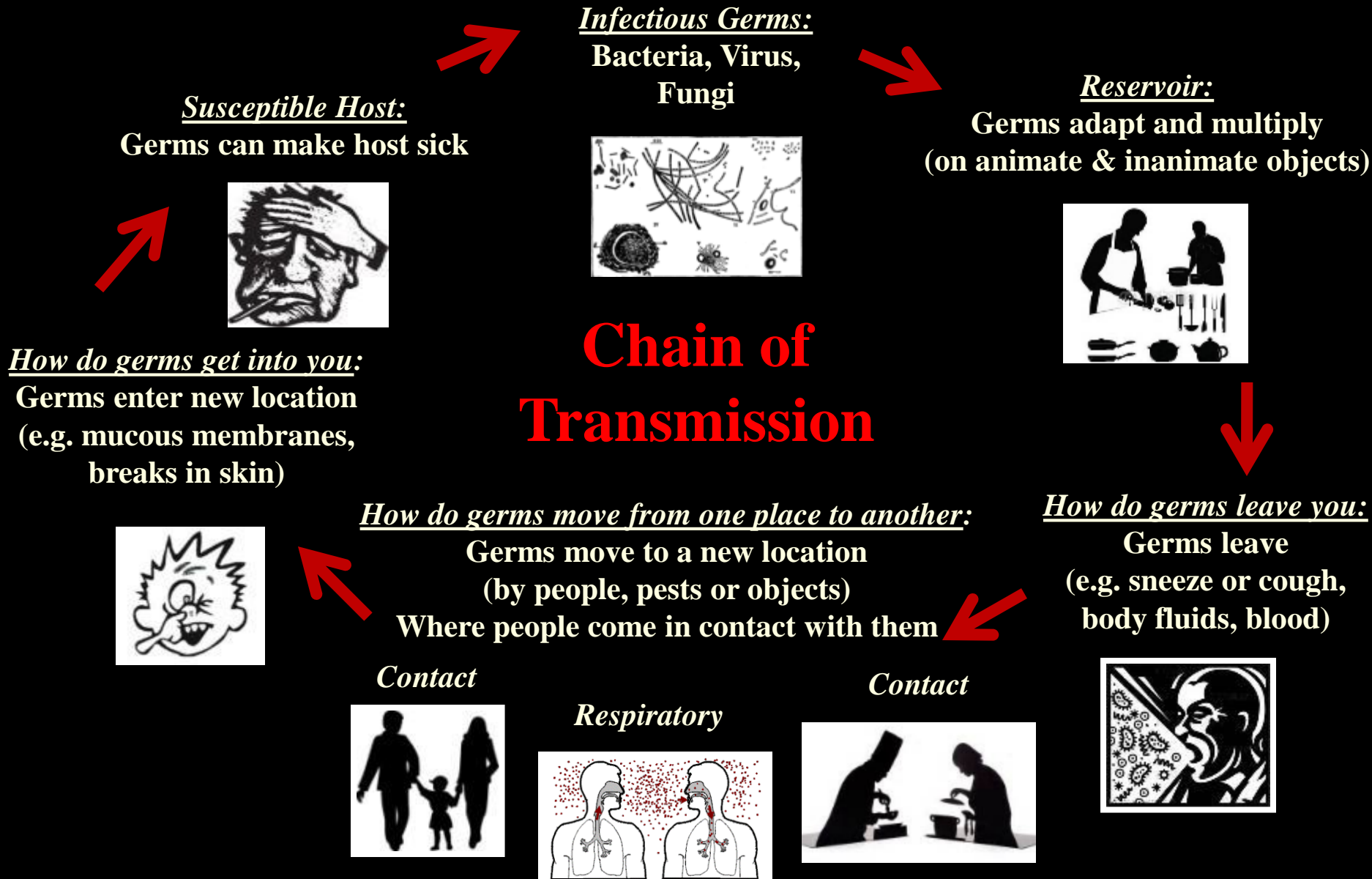
Lynn Rose

What

do you

do when?

How Are Germs Transmitted?



3 Levels of Germ Control



Cleaning
Removing
Germs
up to 99%

Sanitizing
Killing
Bacteria
99.9 to 99.999%

Disinfecting
Killing
All Germs Tested
Except Their Spores

1. Cleaning for Germ Control

Cleaning
Removing Germs
up to 99%

Sanitizing
Killing
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Disinfecting
Killing
All Germs Tested
Except Their Spores

- Involves physically removing germs *and* conditions they need to survive (e.g. dirt or food).
- Use water, detergent and a green scrubbing pad or bristle brushes to scrub the surface.



Green Pad



Blue Brush

Scrubbing / Apply Detergent

1. Remove any food debris
2. Apply detergent solution and scrub all surfaces to loosen debris, dried food and cooked-on foods.

1. Use a Blue Bristle Brush  or Green Pad. 

Note: Towels & wipers are not permitted.



Green Detergent Pail



Detergent



Scrub!

Rinsing

3) Rinse: Blue Rinse Pail with a Clean Wiping Towel



Use a Blue Clean Water Pail and a clean towel to remove the chemical (detergent) and any loosened food debris.

Always start at the top and move to the bottom. (Take care to avoid splashing)

1. Cleaning for Germ Control: *Microfiber*

New Supplies - WPS will pilot microfiber cloths:

Microfiber can remove 95%-99% of bacteria as compared to 30% using cotton* .

- ***Captures Germs Better:*** it has more scrubbing action than cotton.
- ***Minimizes Germ Growth:*** dries more quickly, which helps to prevent germs from growing inside cloth.



* UC Davis Medical Center Study 2002

1. Cleaning for Germ Control: *Microfiber*

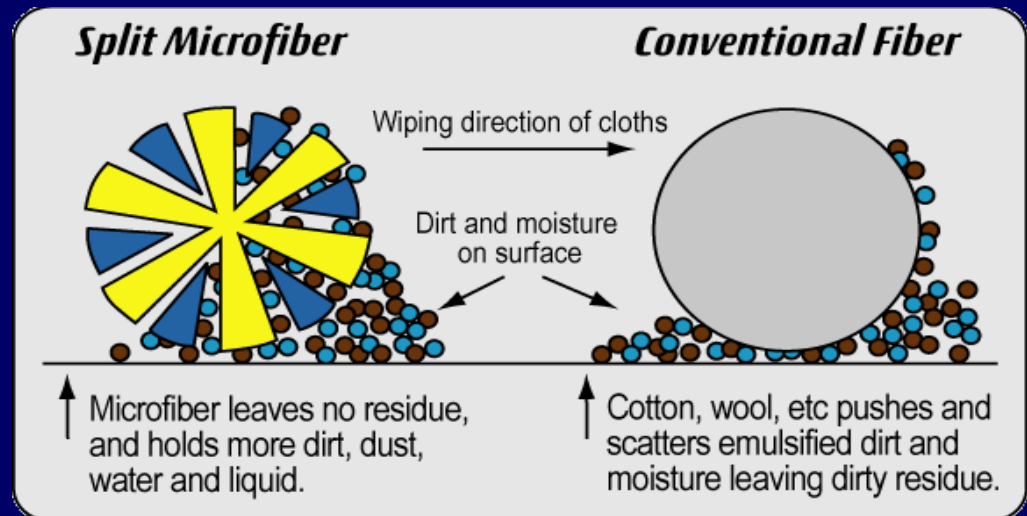
- ***Absorption Ability:*** It absorbs up to 7-8 times its weight in liquid, reducing the conditions germs need to live on a surface.

Great for streak and residue free cleaning:

– All surfaces

– Glass

– Stainless steel



2. Sanitizing for Germ Control

Use on both porous and nonporous surfaces:

- Food contact surfaces: sanitizing rinses for surfaces such as dishes and cooking utensils.
- Non-food contact surfaces: laundry, etc.



Cleaning and Sanitizing Procedures

The Correct Tools for the Job

- ✓ Potable or safe drinking water
- ✓ Detergents appropriate for use in commercial kitchens.
- ✓ Approved sanitizing solutions.
(Bleach is not approved)
- ✓ Acceptable cleaning tools – color-coded buckets, brushes (blue), pads (green), brooms (blue), mops, and sprayers.

Cleaning and Sanitizing Procedures

The Correct Systems for the Job

- ✓ **Effective cleaning and sanitizing procedures (you are learning those today).**
- ✓ **Trained employees to conduct cleaning & sanitizing procedures properly (you are being trained today).**
- ✓ **Monitoring to verify that procedures are effective. (high heat thermostats and / or sanitizer concentration test strips, and you!)**

Basic Cleaning and Sanitizing Methods

We have 2 methods:

**1) High Temp (high heat)
Ware Washing Machine
(wash 150, rinse 180)**



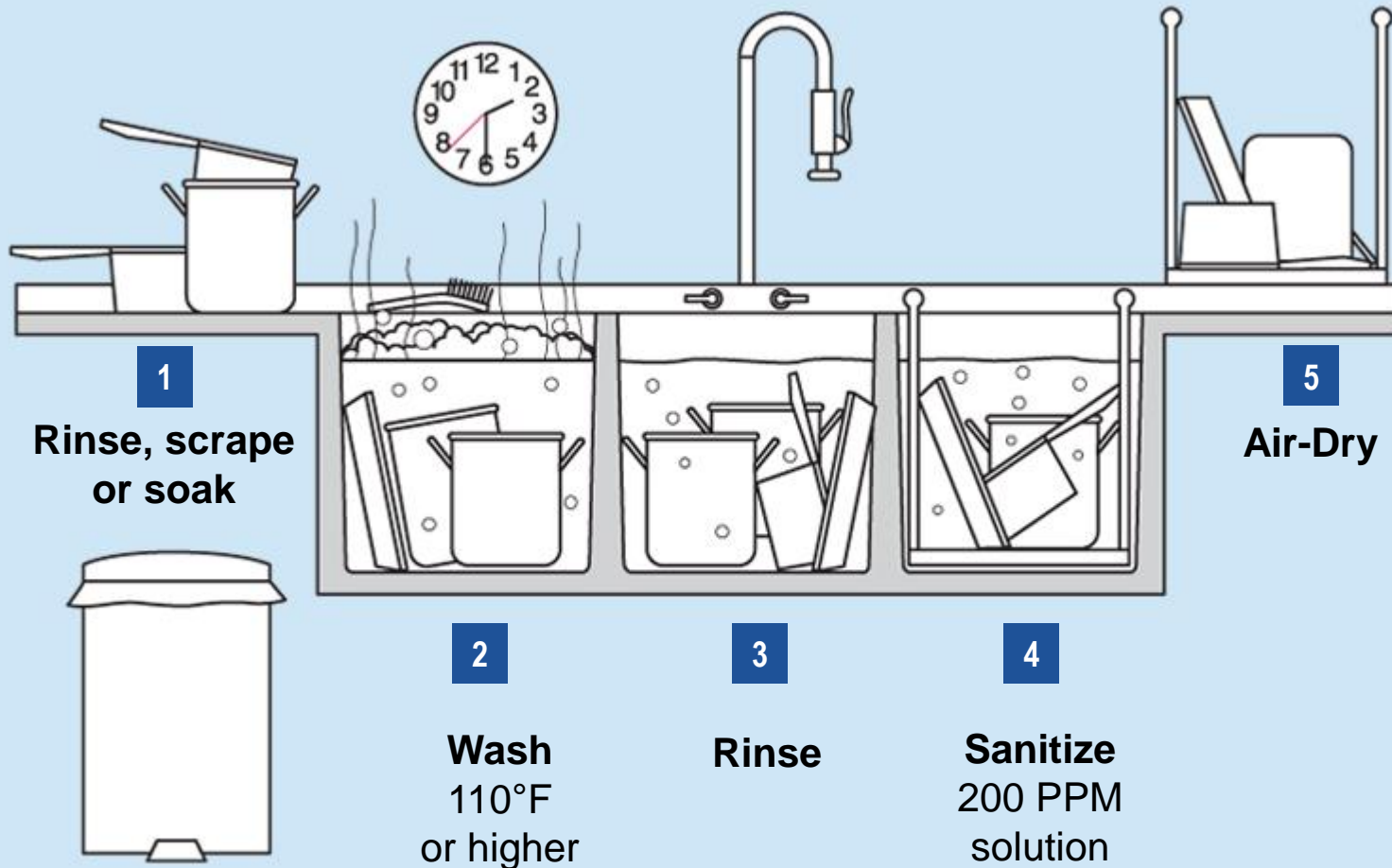
Basic Cleaning and Sanitizing Methods

2) Manual Cleaning (wash, rinse, sanitize).

Schools with 3-compartment ware washing sinks and for items that are too large for the machine:

- Tables
- Buffalo Chopper
- Can Opener
- Skillet, Kettle, Mixer
- Bowl Stands and Carts (wagons) etc.
- *OR, if your high-temp machine is under repair*

Steps for Cleaning and Sanitizing in 3-Compartment Sink

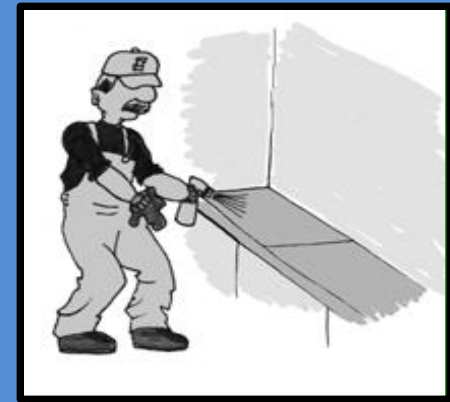


Sanitizing

4) Apply Sanitizer

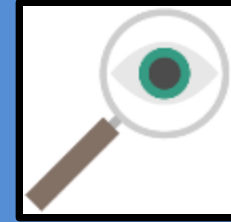
(spray or 3rd compartment sink application)

- spraying from top to bottom,
- thoroughly covering area, or
- submerging in 3rd compartment sink.



Sanitizing

- **Prior to applying sanitizer:**



- **Visually inspect surfaces.**

- **Surfaces must be completely free of food residue and soap before sanitizers are applied.**

- **After applying sanitizer:**

- **Allow it to remain on surface for a minimum of 60 seconds to kill bacteria.**

- **Allow it to air dry. (Do not rinse.)**

3. Disinfecting for Germ Control



- Use on hard nonporous surfaces.
- Common disinfectant ingredients that pose health risks:
 - bleach (WPS has eliminated)
 - quaternary ammonium compounds (WPS is working to replace)

3. Disinfecting for Germ Control: *Blood Spills in the Kitchen*

- *To comply with OSHA
BBP Standard, use:*

A product that lists the specific
BBP viruses - HIV and hepatitis
B and C.



- *For other specific diseases,
work with supervisor to
obtain correct product.*

EZ DISINFECTANT
Disinfectant -- Bactericide -- Virucide -- Fungicide
For Hospital, Institutional and Home Use

Active Ingredients:

Compound A	15.0 %
Compound B	2.5 %
Compound C	2.5 %
Inert Ingredients	80.0 %
TOTAL	100.0 %

This product has been proven effective against the following organisms:

Staphylococcus aureus
Salmonella enterica
Pseudomonas aeruginosa
Trichosporon mentagrophytes
HIV-1

E.P.A. Reg. No. 30000-300

Hospitals, Nursing Home Facilities, other health care establishments, schools, veterinary clinics, office buildings, retail establishments, industrial facilities

Why do we clean and rinse before we sanitize and disinfect?

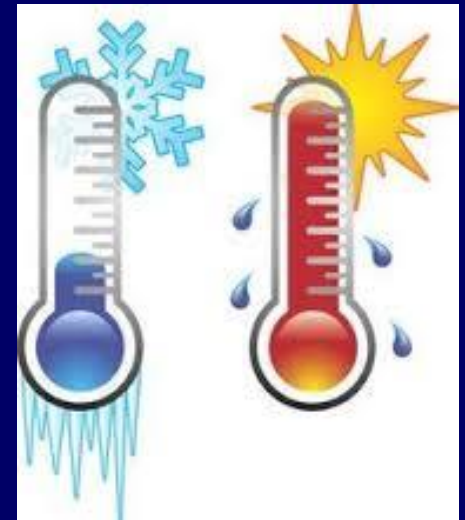
- **Materials on the surface to be disinfected - cleaning product residues, protein and dirt.**

What materials contain proteins?



Factors that Compromise Effectiveness of Sanitizers

- **Contact time** (amount of the time it takes sanitizer to “kill” a germ)
 - every product has different kill time
 - let surface air dry whenever possible
 - new product has a 1 minute kill time
- **Appropriate temperature**
- **Shelf life – expiration date**



Preventing Cross Contamination

Cross Contamination:

- Is the transfer of infectious germs from one surface, object or person to another.



■ Involves understanding Chain of Infection:

- where germs live and multiply, and
- how they are transferred to a new location.

Preventing Cross Contamination

Sources of Cross-Contamination:

- Used cloth or mop head, especially if left soaking in dirty solutions.
- Sanitizer solutions, prepared in a dirty container, or stored for long periods of time.
- Contaminated hands or gloves.



Preventing Cross Contamination

Strategies:

- **Allow laundered mop heads and cloths to dry before re-use.**
- **Replace cloths and mop heads each time a bucket of disinfectant is emptied and replaced.**



Preventing Cross Contamination

- **Strategies - Surface to Surface**
 - **Fold cloth into 8, and use a new side for each surface.**



- **Change cloths or mop heads when moving to a new surface (e.g. tables to counter).**

Why reduce use of sanitizers and disinfectants? *Disinfectants Are Not Cleaners - They are Pesticides!*



The active ingredients of disinfectants are among the most toxic chemicals used in food service work.

Ingredient	Hazards	User Health Effects
Quaternary Ammonium Chlorides	Corrosive	Eye & skin burns, sensitizer, asthma
Sodium Hypochlorite (bleach)	Oxidizer Reactive	Eye & skin burns; Vapors are a respiratory irritant

Disinfectants and Work Related Asthma

Products	# Cases
Unspecified	104
Bleach	43
Disinfectants	20
Ammonia	14
Acids, bases, oxidizers	23

Note: 12% of all work related asthma cases in 4 states were associated with cleaning products

Custodial workers experience one of the highest rates of occupational asthma.

Kenneth D. Rosenman, MD
Mary Jo Reilly, MS
Donald P. Schill, MS, CIH
David Valiante, CIH
Jennifer Flattery, MPH
Robert Harrison, MD, MPH
Florence Reinisch, MPH
Elise Pechter, MPH, CIH
Letitia Davis, ScD
Catharine M. Tumpowsky, MPH
Margaret Filios, RN, ScM

Disinfectants and Work Related Asthma

Common Asthmagens

- **Ammonia**
- **Bleach**
- **Fragrance ingredients**
- **Disinfectant ingredients**
(Quaternary ammonium compounds and Bleach)
- **Volatile organic compounds (VOCs) – solvent based products**



Case Against Bleach

(5.25% and 6% Sodium Hypochlorite)

- *Health Effects*

- Corrosive to eyes and skin
- Respiratory irritant
- Byproducts may cause cancer
- May cause fertility issues in chemically-sensitive humans



- *Other*

- Ineffective on dirty surfaces (not a cleaner)