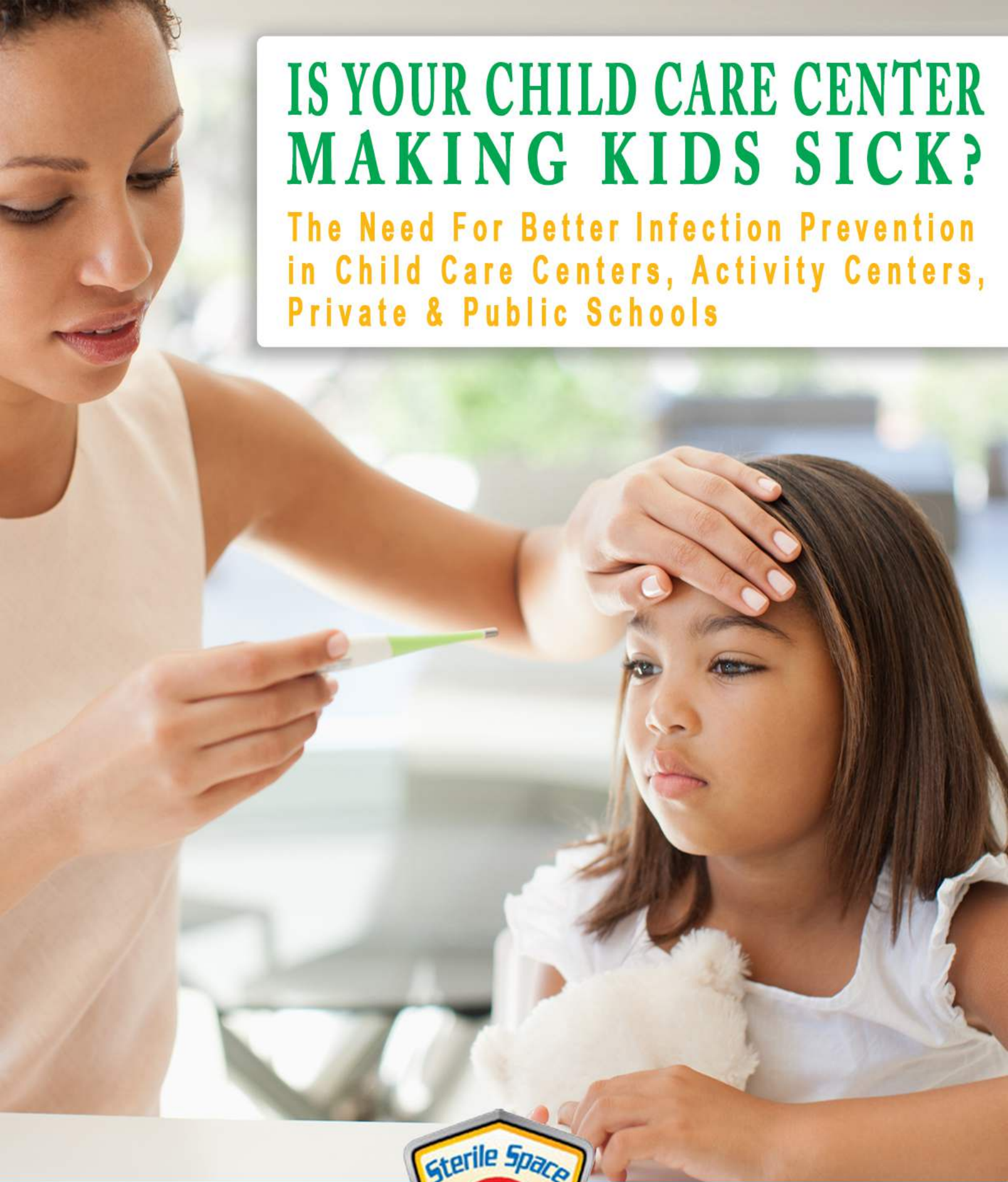


IS YOUR CHILD CARE CENTER MAKING KIDS SICK?

The Need For Better Infection Prevention in Child Care Centers, Activity Centers, Private & Public Schools

Sterile Space

info@sterilespace.com

973-714-8288

DID YOU KNOW?

Out-of-home care and education are the norms for most young children and lead to increased exposure to infectious diseases. – American Academy of Pediatrics[i]

The American Pediatric Association reckons that infants under one in group care have eight times as many colds and other infections as babies cared for by their families. - THE PROBLEM WITH DAYCARE by Karl Zinsmeister[ii]

INFECTION BASICS

What Is an Infection?

An infection is the invasion and multiplication of microorganisms such as bacteria, viruses, and parasites that are not normally present within the body.[iii]

How Do We Acquire Infections?

Infections are acquired in two basic ways:

- Cross Contamination Infection. 80% transmitted by hands
- Direct Infection or Person to Person Infection.

Infection Methods:

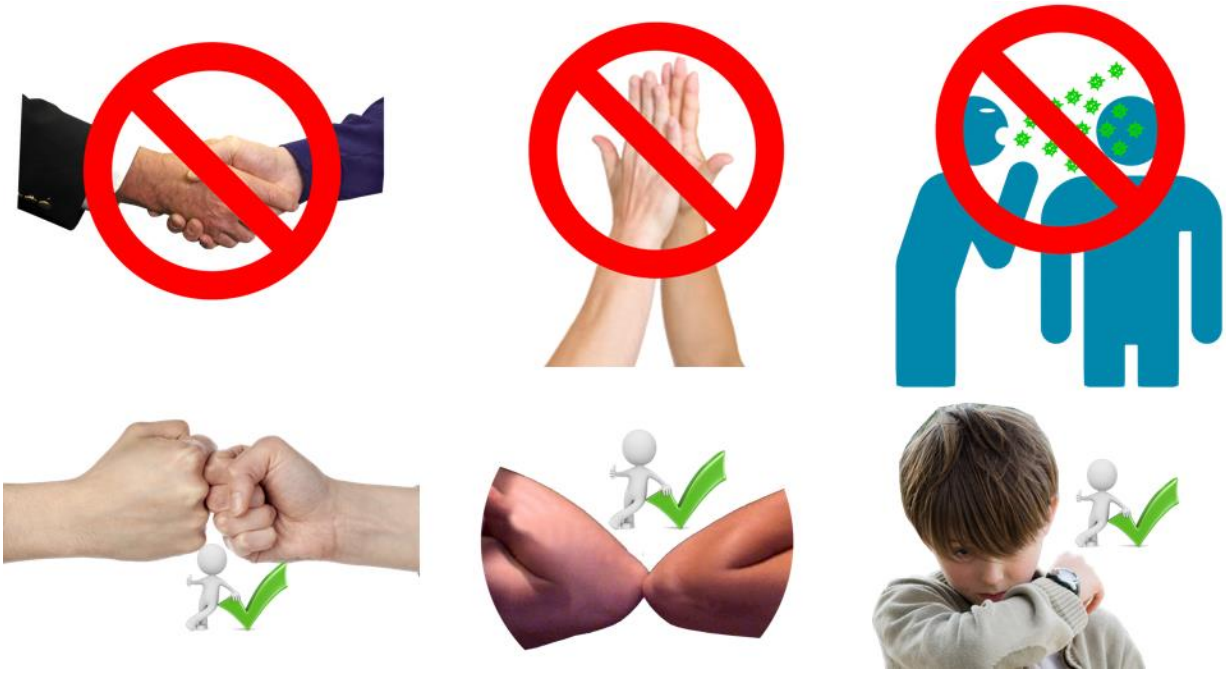
Cross Contamination Infection – Preventable

Direct Infection - Non-Preventable

What Is Cross Contamination Infection?

- Touching a contaminated surface with your hand and then touching your eyes, nose or mouth with infectious microbes on your fingers and hands.
- Approximately 80% of the time this how we acquire infections.
- You pick up some new germs and leave some behind for someone else to acquire.
- Coxsackie, E. coli, Shigella, Pink-eye, and other illness are frequently caught by cross contamination infection.

How to Avoid Direct Infection Acquisition



Common Child Care Infections and How Long They Survive on Surfaces

- Shigellosis (Dysentery) from E. coli and Coliform
  Can survive on hard surfaces for months[iv]
- Rhinovirus (Common Cold)
  Can survive on surfaces for more than a week[v]
- Norovirus (Gastroenteritis or Stomach Flu)
  Can survive on a surface from 8 hours to 7 days[vi]
- Conjunctivitis (Pink Eye) from Bacteria or Virus
  Can survive on a surface for up to 2 days[vii]

- Streptococcus (Strep Bacteria) Can survive on a surface from 3 days to 6 1/2 months[viii]

- Hand, Foot & Mouth Disease (Coxsackie Virus) Can survive for up to 3 weeks on a surface[ix]

- Staphylococcus (Staph Bacteria) Can survive on a surface for weeks[x]

5 Common Myths About Infection Prevention

1. **We clean all the time:** Just using a cleaner and cleaning is not infection prevention.

2. **That's why we have a cleaning company:** Cleaning & Janitorial services just clean, mop and vacuum. No infection prevention

3. **We clean with bleach and water, that's enough**: Bleach is NOT for cleaning. It's used as a disinfectant.

4. **We follow the state mandated requirements**: The state does try to give good advice but it falls short of real world needs

5. **Exposing the children to germs, builds their immune system:** Children's immune systems are just learning to fight infections. Don't push it.

How Many Germs Does It Take to Get Infected?

Let's consider a germ like E. coli that is plentiful in most child care centers.

First you need to know that an E. coli cell is about 2 microns x .5 microns in size. In a linear inch, there are 25,400 microns. That makes 12,700 E. coli cells in a linear inch laid end to end. Or, 794 cells in a 1/6th of an inch. Considering you need as few as 10 cells to get infected, that's enough E. coli to theoretically get 80 sick.[xi]

DID YOU KNOW?

Germ-ridden doorknobs can infect a building in hours, infecting most occupants.[xii]

INFECTION PREVENTION

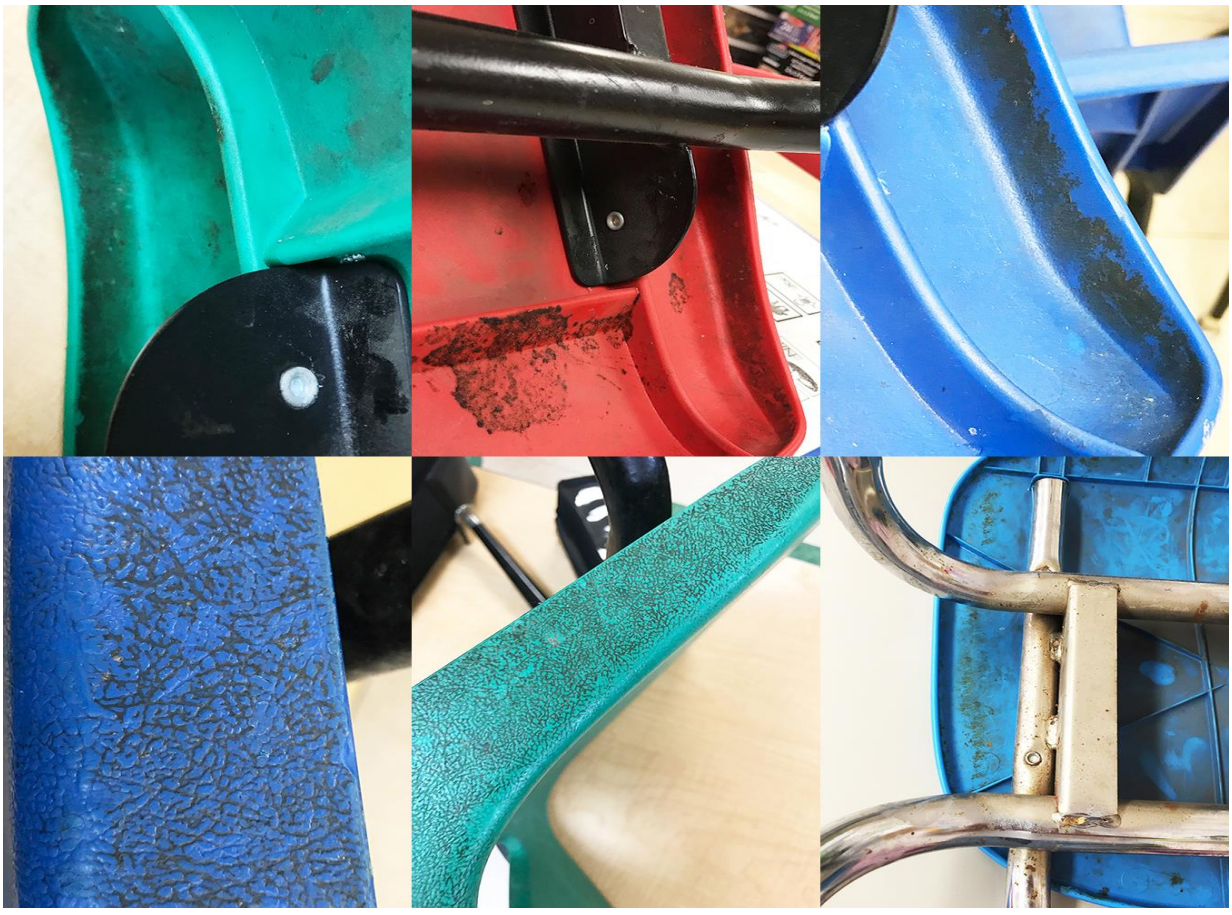
Cleaning is Only Part of the Approach to Infection Prevention

1. Cleaning is only the removal of dirt and debris from a surface. It entails using a good quality detergent to remove dirt, dust, food debris, finger paints, dribble, nasal discharge, etc.[xiii]

2. Disinfecting is only using a disinfectant to kill germs on surfaces. The action of a disinfectant is gone as soon as it dries/evaporates off a surface. That surface can be re-contaminated immediately.

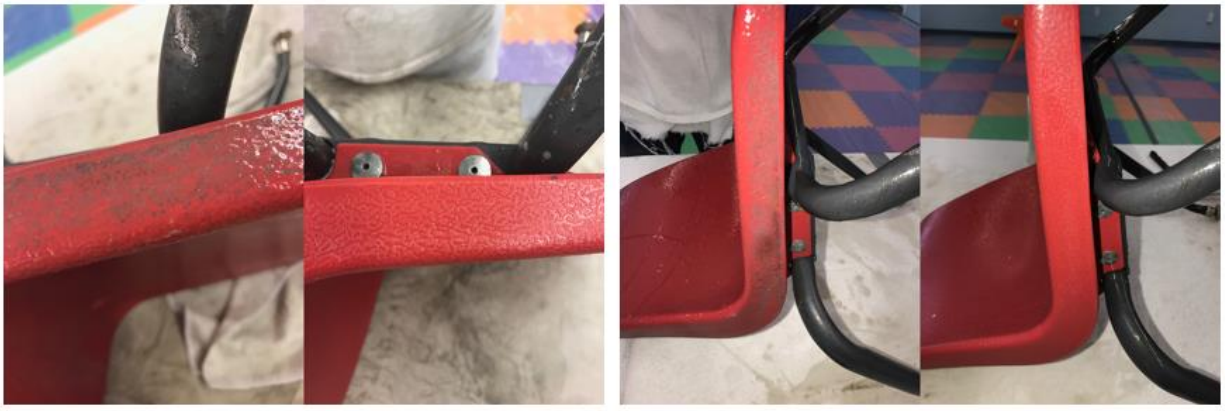
3. Sanitizing is done to reduce the number of disease causing germs on surfaces to a safe level.

Chairs - A Bacteria Cafeteria



Every-day items like the chairs pictured above can be breeding grounds for bacteria and infections. If your child is suffering from chronic colds, sore throats or ear infections, this could be one source of infection.

Chairs - A Before and After View



As evidenced above, the right cleaning, disinfecting and sanitizing can make these chairs look like new again and keep your children safe.

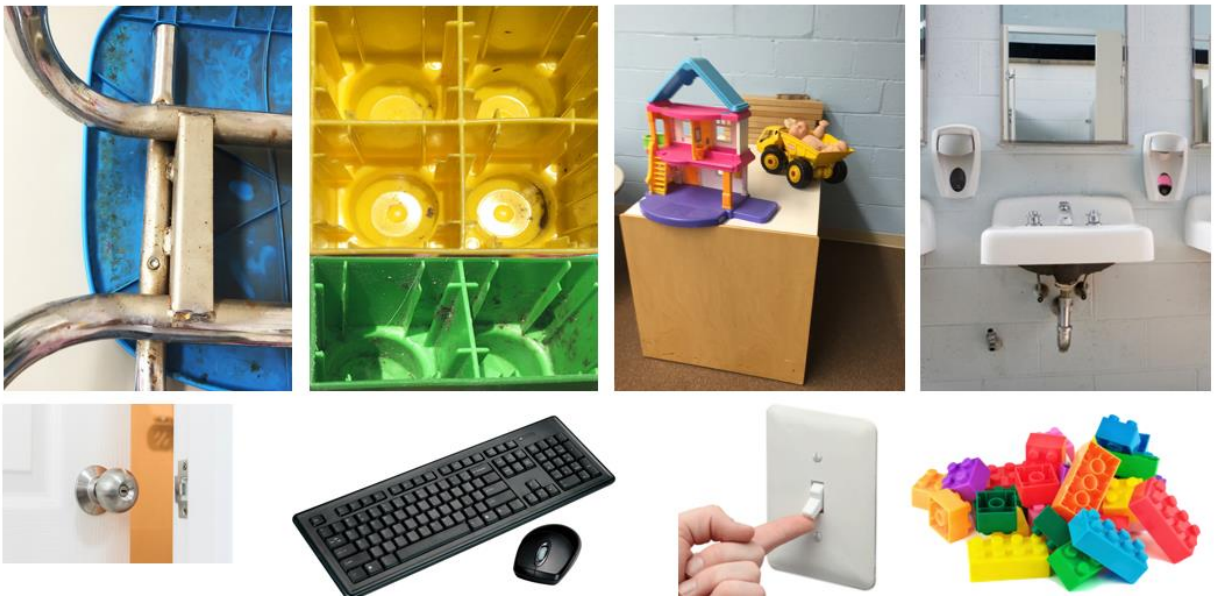
Modern Infection Prevention Practices

1. Clean, Very, Very Well. Take your time and do it right.
2. Use a Broad Spectrum Disinfectant on all surfaces.
3. Use a non-leaching Quat Antimicrobial Coating.
4. Keep those surfaces clean, clean, clean on a daily basis.

FOMITES

Fomite fo·mite (fō'mīt') n. An **inanimate object** or substance, such as clothing, furniture, or soap, that is capable of transmitting infectious organisms from one individual to another.

These are FOMITES?



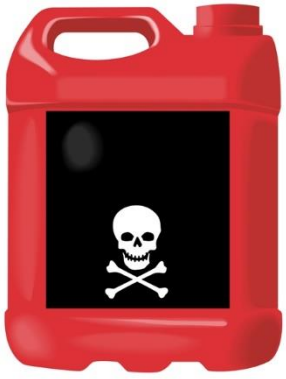
Using Bleach to Disinfect

- **<u>Actually, you don't have to use bleach at all</u>.**
- NJ Statute 10:122-7.7 clearly states that you must use *<u>a commercially prepared disinfectant</u>* that indicates it kills bacteria, viruses and parasites ***<u>or</u>*** a bleach and water solution.
- Bleach is a poison that can burn the skin, eyes, mouth and lungs.

How to Use a Disinfectant

Spray surface and leave wet for up to 4 minutes.

Do Not Use Poisons to Clean: Are Antimicrobials Poisons?



The three types of Antimicrobials are:

1. Silane based - no leaching to skin or surfaces. Are **SAFE**
2. Silver based - heavy metal, leaches, damages DNA **NOT SAFE**
3. Triclosan* based - chemical poison, leaches to poison cells **NOT SAFE**

In child care centers, it is especially important to know exactly what is being used to perpetuate a good infection prevention and control program. Always ask for the MSDS on every product you buy or have used in your school. MSDS stands for **Material Safety Data Sheet**. The MSDS is a document that contains information on the potential health effects of exposure and how to work safely with the material it is written about. It is an essential starting point to a health and safety program. *Triclosan products are now outlawed by FDA for use in personal hygiene products.

Do You Think of Your Center as Clean?

As clean as any facility may look or smell, it is rare that it is biologically clean. Microscopic organisms are cumulative on surfaces just like dust. You just have to look.

Very few Directors/Owners actually have the time to inspect regularly, let alone daily for the cleanliness of their centers.

Case Study of Long-Term Antimicrobial Success

Case Study of Client **R131**

Before and After Readings Taken 2,4,6 months and 1 Year

Pre-Service ATP Readings


Infants Room


Main Room 1


Room 2


Room 3


Room 5


Bathroom 1

Post-Service ATP Readings at 4 months after service below.


96.6% Reduction


88.7% Reduction


98.9% Reduction


97.2% Reduction


98.4% Reduction

Dropped Swab Contaminated No reading This time

Data Unavailable

Post-Service ATP Readings at 6 months after service below.


96.8% Reduction


98.9% Reduction


97% Reduction


98.5% Reduction


98.1% Reduction


99.8% Reduction

Post-Service ATP Readings at 1 Year after service below.


96.8% Reduction


96.5% Reduction


97.9% Reduction


99.1% Reduction


97.5% Reduction


99.0% Reduction

What Makes Your School Biologically Safer?

Your School Should Be Using:

- A good detergent cleaner
- A proper cleaning technique
- A proper decontamination technique
- A good quality disinfectant
- A long-term antimicrobial applied to every surface

Proper Cleaning Techniques

A proper cleaning technique is so important to good cleaning in general, but much more important when it's a part of an integrated infection prevention plan.

Leading Edge Cleaning

Swirling Cleaning

By using the **Leading Edge** method, all the dirt is kept at the front of the towel. If you Swirl the towel, it is far less effective and a waste of time. It smears debris instead of collecting it and moving it off the surface.

Infection Prevention: Expense or Investment?

- Using best practices of infection prevention is operationally efficient in terms of preventing absence and operating issues.
- Toilet paper, soap, paper cups, vacuum bags are expenses.
- Staff and student absence due to recurring illness is far costlier in lost productivity, parental work absence and your frustrations due to potential loss of clients!
- An investment is something you spend money on to improve, and/or safeguard your business. Infection Prevention is a safeguard.

Who Has Used This Kind of Infection Prevention?

- Numerous NJ Child Care Centers, Fitness Centers & Restaurants
- Phoenix Heart Institute • Memorial Sloan-Kettering Cancer Dept.
- Minnesota Vikings • Miami Heat • NJ Nets • Detroit Pistons
- Greenville, SC County Schools (67 sites) • Ohio State University
- University of Southern California • Virginia Tech University

These Schools and Centers BELIEVE in Infection Prevention

Healthy Child Zone® Clients

Red Carpet Kids
Bloomfield, NJ

The Little Gym
Serious Fun.
Montclair, NJ
Caldwell, NJ

Future Generation
Early Learning Centers
Bloomfield, NJ

Mountain Hill School
Climb Higher
Atlantic Highlands, NJ

Over the Rainbow
Nursery School
Montclair, NJ

Rainbow Child Care Center & Preschool
Roseland, NJ

Kiddoodle Learning Center
Butler, NJ

"It Takes a Village"
The Village
Babies Development Center
South Orange, NJ

Serenity Montessori Academy
Verona, NJ

East Hanover
Child Care Center

The Education Station
Day Care Centers, Inc.
Bloomfield, NJ

Kids Unlimited
Day Care and Learning Center
Wayne, NJ

One Step Ahead
Child Care Center
East Orange, NJ

Totsville
Childcare Learning Center
Union Beach, NJ

AM2PM
Childcare Learning Center
Hazlet, NJ

My Special Spot
Cedar Knolls, NJ

Cresthill Academy
East Hanover, NJ
Hoboken, NJ

Les Enfants
Preschool · Summer Camp
Palisades Park, NJ

Little Scholar Nursery School
Belleville, NJ

Tiny Tiki's Learning Center
601 Main Street, Little Falls, NJ 07424
973-256-8180
Little Falls, NJ

INFECTION DEFENSE

Thank you for choosing to be proactive about Infection Prevention, Control and Eradication in your facility or home. Sterile Space Infection Defense provides a unique and necessary service in today's ever infected world to inhibit Cross Contamination Infection.

For more information or services, please call or email us at:

Sterile Space Infection Defense LLC

973-714-8288 | irwin@sterilespace.com | www.sterilespace.com

We provide services by appointment and for emergency situations.

Link Resources

[i] http://pedsinreview.aappublications.org/content/35/5/182
[ii] http://www.thelizlibrary.org/liz/daycare.html
[iii] www.medicinenet.com
[iv] www.phac-aspc.gc.ca
[v] www.reference.com
[vi] http://www.barbicide.com
[vii] http://www.aao.org
[viii] http://www.phac-aspc.gc.ca
[ix] http://www.phac-aspc.gc.ca
[x] http://blog.cashins.com
[xi] www.cdc.gov and http://ecoliwiki.net/colipedia/index.php/Escherichia_coli
[xii] www.newser.com/story/193729/germ-ridden-doorknob-can-infect-building-in-hours.html
[xiii] http://health.mo.gov/atoz/ehog/pdf/Ch_4.1.6.pdf