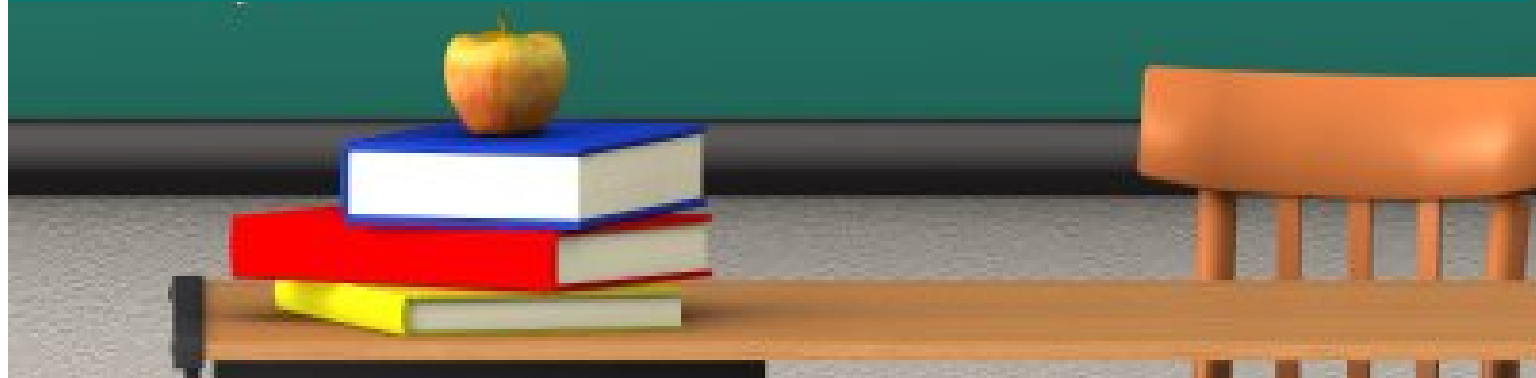


Basic School Sanitation



Agenda

- ❑ Common Illnesses in Schools
- ❑ Common Food Borne Illnesses in Schools
- ❑ Disease and Illness Transmission
- ❑ Effective Cleaning and Maintenance
 - Mold and Moisture
 - Reducing Chemical and Environmental Hazards
 - Good Ventilation
 - Preventing Pests while Reducing Pesticide Exposure

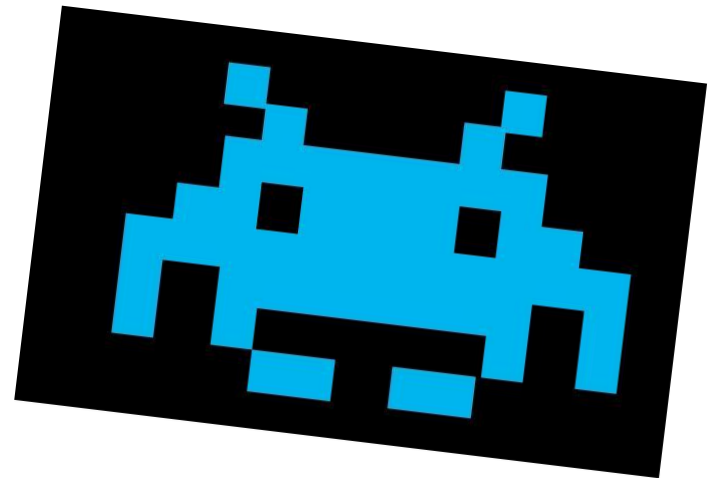
- “On an average day in America, **13 workers die** on the job, thousands are injured and **150 succumb to diseases** they obtained from exposure to carcinogens and other toxic and hazardous substances while they worked”

- “Given the troubling statistics on workplace deaths and injuries, the Department of Justice is **redoubling its efforts to hold accountable** those who unlawfully jeopardize workers’ health and safety.”
 - Deputy Attorney General Sally Quillian Yates

Infection-

A major cause of disease and death in man

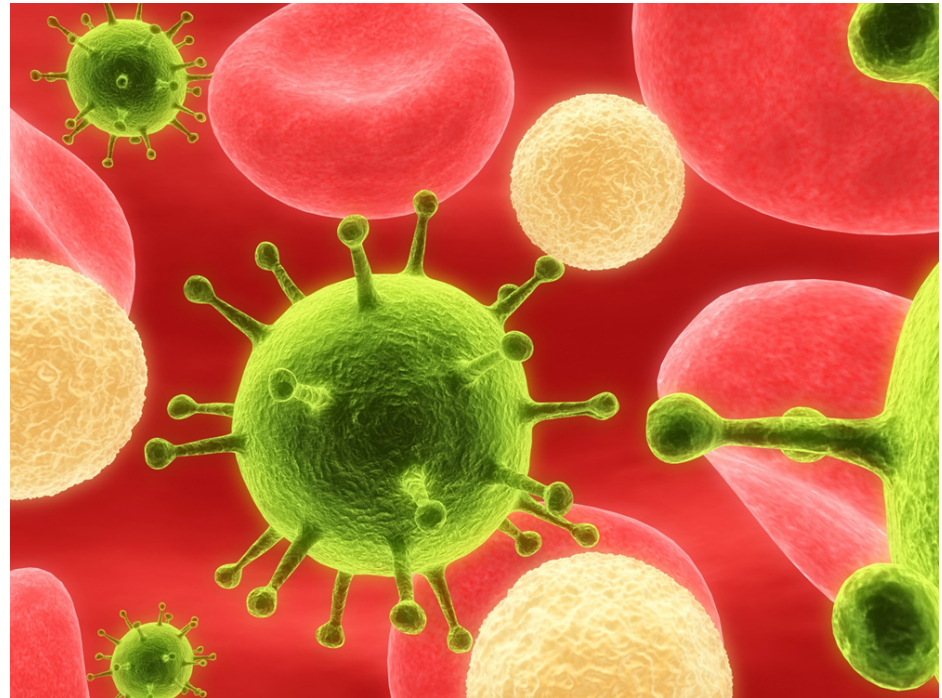
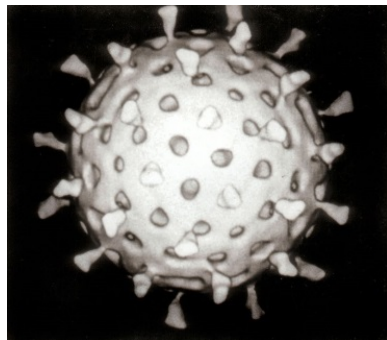
- **Infection** is the invasion of a host organism's body tissues by disease-causing agents, their multiplication, and the reaction of host tissues to these organisms and the toxins they produce.



Microorganisms that cause disease:

- Viruses
- Bacteria
- Rickettsiae
- Protozoa
- Fungi

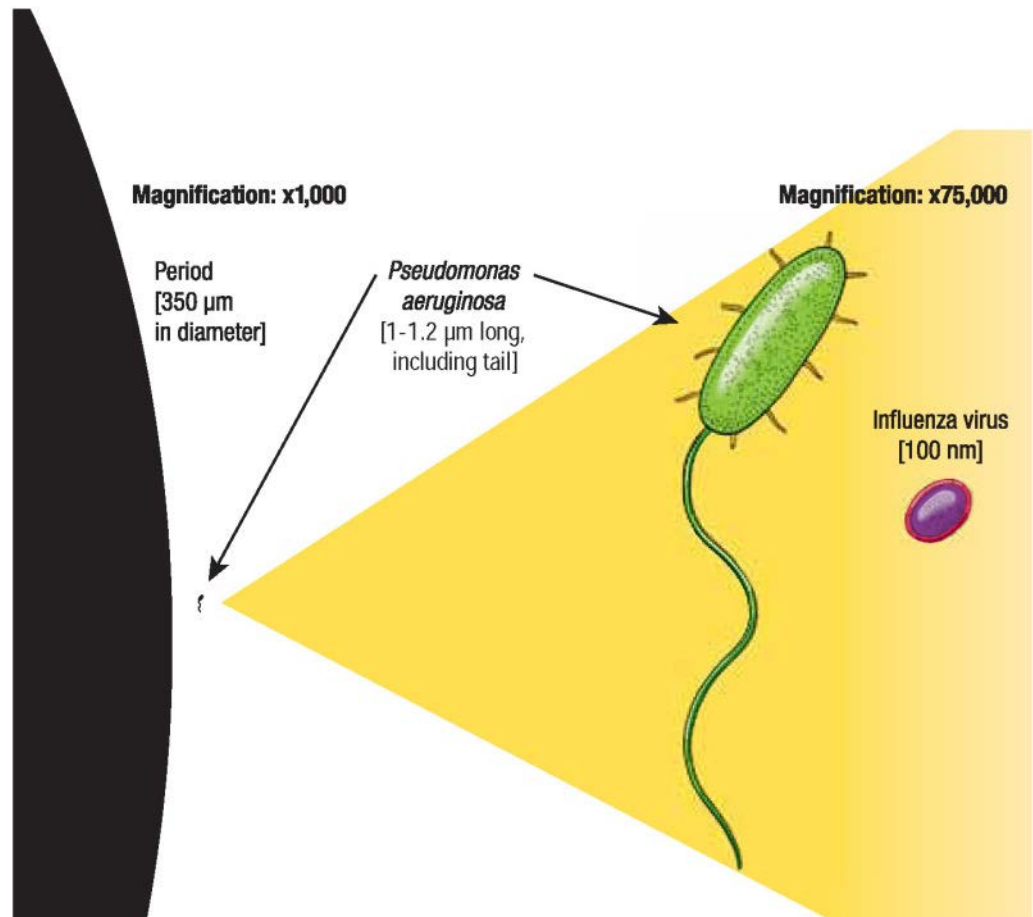
Most abundant type
of biological entity



Microorganisms that cause disease:

- Viruses
- Bacteria
- Rickettsiae
- Protoza
- Fungi

Can only replicate in
a living cell



Impact of Illnesses

- 40% of children aged 5–17 years missed 3 or more school days in the past year because of illness or injury
- Colds: 22 million school days lost annually
- Flu Virus: 38 million school days lost annually



Common Illnesses in Schools

(1 of 2)

<http://www.healthgrades.com/>

COMMON COLD

- ❑ Cold viruses most common and most contagious school illness
- ❑ Kids get more colds than adults; more severe symptoms
- ❑ No fever? Probably ok to go to school (teach children how to avoid spreading germs)

INFLUENZA VIRUS

- ❑ Respiratory virus that is more intense than colds
- ❑ Keeps kids out of school longer than a cold
- ❑ 101 degree or higher fever, unusual fatigue, dry cough

Common Illnesses in Schools

(2 of 2)

<http://www.healthgrades.com/>

STOMACH FLU (Gastroenteritis)

- Is NOT the flu. Caused by wide variety of viruses: rotaviruses, noroviruses, and certain adenoviruses.
- Infection of the lining of the digestive tract
- Stomach pain, vomiting, and diarrhea ... **DEHYDRATION**
- Ok to eat food and force fluids
- Spreads from close contact with infected person, also through contaminated food and beverages.

HEAD LICE

- Tiny parasitic insects that live on the scalp
- Feed on blood and cause intense itching
- Don't spread disease, but may cause a secondary infection from scratching
- Most common in kids three to 11 years old and their caregivers



How can YOU avoid being a Disease Vector?

<http://www.healthgrades.com/>

COMMON COLD

- ❑ Cough and sneeze into a tissue or elbow if no tissue is available, wash hands with warm water for 20 seconds afterward

INFLUENZA VIRUS

- ❑ Keep fingers and hands away from the mouth, nose and eyes.
- ❑ Wash hands frequently with warm, soapy water
- ❑ Get the flu vaccine each year. The CDC recommends everyone six months and older gets vaccinated. ***Protects you and others***

STOMACH FLU

- ❑ Always wash hands after using the bathroom and before eating
- ❑ Avoid sharing drinks, eating utensils, and toothbrushes
- ❑ Eat food off of clean surfaces.

HEAD LICE

- ❑ Avoid head-to-head contact
- ❑ Do not share personal items and storage spaces at school



WASH YOUR HANDS

What about COVID-19?

The Flu Shot worked well this year...But there is no vaccine for COVID-19.

- ❑ Wash your hands for 20 seconds **OFTEN**.
- ❑ Hand Sanitizers: follow the directions. You do **NOT** need HSA training to use hand sanitizers at school.
- ❑ Sneeze and cough into your arm, not hands.
- ❑ Wear face a cloth face covering
- ❑ Do not share personal items
- ❑ Do not to touch your face, eyes, mouth, etc.
- ❑ Stay home from work/school until two tests are negative

Symptoms to be concerned about:

Like the flu, COVID-19 is a viral respiratory disease, leading to high fevers, headaches, coughs, muscle pains, and runny noses.

Shortness of breath

Blue skin

Labored breathing

Dehydration

What about wearing masks?

- The CDC recommends wearing masks when social distancing is not possible



SOURCE: V. ALTOUNIAN/SCIENCE

Shasta County COVID-19

- ❑ Text CORONAVIRUS to 211211 for locally updated information
- ❑ Go to 211norcal.org/shasta and click on banner
- ❑ Consider using telehealth (MD Live or another similar program)
- ❑ If going to the doctors office or hospital, consider calling first



Disease and Illness Transmission

The Five “F”s

- ❑ Fingers
- ❑ Flies
- ❑ Feces
- ❑ Fluids
- ❑ Food

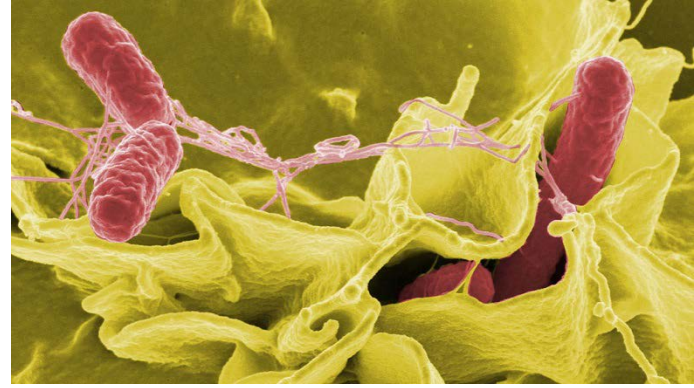


Common Foodborne Illnesses in Schools

Bacteria, Viruses, Parasites, Toxins/Chemical, Contaminants

- ❑ From 1973 through 1997 there were 604 outbreaks of foodborne disease in schools (about 25 annually)
- ❑ In 60% of outbreaks no specific cause was determined
- ❑ In 45% a specific food vehicle of transmission was not determined.
- ❑ Salmonella most commonly identified pathogen, accounting for 36% of outbreaks
- ❑ Food preparation practices contributing to outbreaks:
Improper food storage and holding temperatures, and food contaminated by a food handler.

Common Foodborne Illnesses in Schools



Salmonella

- ❑ Most commonly identified school food borne pathogen
- ❑ Cause of Typhoid and Food Poisoning
- ❑ Can persist in a bathroom setting for weeks
- ❑ Freezing doesn't kill, but heat does: 140 degrees- 12 min

Campylobacter

- ❑ Gastrointestinal bacteria
- ❑ Fecal-oral, ingestion of contaminated food or water, and the eating of raw meat
- ❑ Foods implicated include raw or undercooked poultry, raw dairy products, and contaminated produce

Most Commonly Affected Food

- ❑ **Poultry** (18.6%) Seventy percent of the poultry-related outbreaks were attributed to turkey.
- ❑ **Salads** (6.0%),
- ❑ **Mexican-style food** (6.0%),
- ❑ **Beef** (5.7%)
- ❑ **Dairy** products excluding ice cream (5.0%)
- ❑ Outbreaks associated with turkey and dairy are becoming less common
- ❑ Outbreaks caused by salads are increasing considerably

Practice Effective Cleaning and Maintenance



Practice Effective Sanitation

Flu virus lifespan: Minutes to days. Depends on conditions and surface. Normal cleaning can eliminate most hazards.

Sanitizing is the process of cleaning or disinfecting

Cleaning. Cleaning removes germs, dirt and impurities. Use soap and water to lower the numbers of germs and prevent the spread of infection.

Disinfecting. Disinfecting kills germs on surfaces. Use approved chemicals to kill the germs after cleaning. *Must take HSA training.

Sanitizing for COVID-19

- ❑ Safehandles.com
- ❑ Karcher Sprayers
- ❑ Victory Handheld
 - Electrostatic Sprayers



Practice Effective Cleaning and Maintenance

PRODUCTS

Use chemicals that have:

- Neutral pH levels
- No known carcinogens
- Low or no Volatile Organic Compounds (VOCs)
- Energy and water savings benefits
- Biodegradability
- Less packaging
- Other positive health and environmental attributes

PRACTICES

- Read and follow product labels
- Use only the amount needed
- Clean when the building is unoccupied
- Use proper equipment to do the job
- Manage and dispose of cleaning products safely
- Use SDSs
- Label for use, storage and disposal

Prevent Mold and Moisture (1 of 2)



TIME IS YOUR ENEMY. Watch for:

- Leaky plumbing and leaks in the building envelope
- Condensation and wet spots
- Prevent condensation by increasing surface temperature or reducing humidity
 - **Surface Temp:** Insulate or increase air circulation
 - **Humidity:** Maintain at 30-50%.
- Reduce by repairing leaks, increasing ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid).

Prevent Mold and Moisture (2 of 2)



- Keep heating, ventilation, and air conditioning (HVAC) drip pans clean, flowing properly, and unobstructed.
- Vent moisture-generating appliances to the outside where possible.
- Perform regular building/HVAC inspections and maintenance as scheduled.
- Don't let foundations stay wet. Provide drainage and slope the ground away from the foundation

Reduce Chemical and Environmental Contaminant Hazards

- Conduct annual GHS training (Hazard Communication)
- Review SDSs, know where they are
- Purchase and use less toxic lab chemicals, art supplies, and other materials.
- Follow State and local purchasing, use, storage, and disposal guidelines.
- Know how to properly use chemical safety and personal protection equipment.



Ensure Good Ventilation

Problems can come from:

Sources Outside Building

- Contaminated outdoor air
- Emissions from nearby sources
- Soil gas
- Moisture or standing water promoting excess microbial growth

“IAQ”

Human Activities

- Personal activities
- Housekeeping activities
- Maintenance activities



Ensure Good Ventilation

Equipment

- HVAC system
- Non-HVAC equipment

Building Components and Furnishings

- Locations that produce or collect dust or fibers
- Unsanitary conditions and water damage
- Chemicals released from building components or furnishings

Other Sources

- Accidental events
- Special use areas and mixed use buildings
- Redecorating/remodeling/repair activities

Prevent Pests and Reduce Pesticide Exposure **IPM**

Pest Management Strategy

Long-term
prevention
of pests

Combination
of techniques

Least
hazardous
pesticide
used only as
needed

Health and
environment
approach

Summary

- ❑ Common Illnesses in Schools
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