



Jackson County Central Public Schools

New Teacher Health & Safety Training

Employee Right to Know
Bloodborne Pathogens

To provide a safe and healthful environment for students, staff, parents, residents and visitors to Jackson County Central Public Schools.

JCC PUBLIC SCHOOL'S

EMPLOYEE'S

HEALTH & SAFETY GOAL

SO WHY AM I HERE ?!

it starts with **OSHA**

The **Occupational Safety and Health Act**

of 1970 was enacted to assure a safe and healthful

working condition for **EMPLOYEES** by requiring

EMPLOYERS to comply with certain standards.



What's In It For Me?

- Satisfy OSHA requirement for annual training
- Reminder on how to protect yourself from hazards

Question: Who is responsible for your safety?



Answer: You!

Reasons to Work Safe



Family

Friends

Gardens



Pets

Hobbies

Travel

Yourself





**MN EMPLOYEE
RIGHT-TO-KNOW
TRAINING**

ERK Overview

- ▶ The ERK coordinator for your district is Mark Steffen
- ▶ The ERK standard requires employers to make employees aware of hazardous substances and/or agents that may be encountered at work

ERK Overview

- Responsibility
- Hazard determination by employers
- Written program – available in the Board Room at JCC High School
- Safety Data Sheets (SDS)
- Labels and other warnings
- Methods of protection
- Emergency procedures

GHS

- Globally Harmonized System of Classification and Labeling of Chemicals
 - Defining health, physical and environmental hazards;
 - Creating classification processes using available data on chemicals
 - Communicating hazard information, and protective measures on labels and Safety Data Sheets (SDS).

Health Effects

Acute

- Generally manifests quickly (either immediately or within days after an exposure).
- An example would be an acid spill on skin. The acute effect is immediate irritation or corrosion of the skin.

Chronic

- Usually takes longer to develop through repeated exposures.
- Usually targets certain organs (i.e. asbestos targets the lungs).
- An individual may not be able to sense the exposure.

GHS Changes

○ Health Hazards

- Acute Toxicity
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Respiratory or Skin Sensitization
- Germ Cell Mutagenicity
- Carcinogenicity
- Reproductive Toxicity
- Target Organ Systemic Toxicity – Single and Repeated Dose

○ Physical Hazards

- Explosives
- Flammability – gases, aerosols, liquids, solids
- Oxidizers – liquid, solid, gases
- Self-Reactive
- Pyrophoric – liquids, solids
- Self-Heating
- Organic Peroxides
- Corrosive to Metals
- Gases Under Pressure
- Water activated flammable gases

Routes of Entry

Dermal or Skin

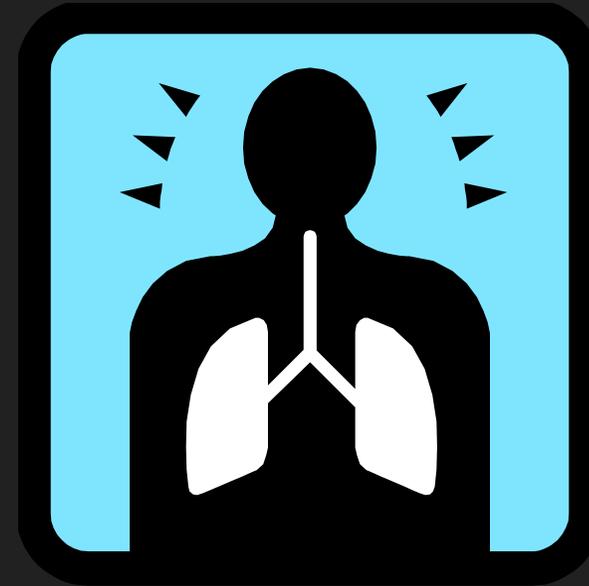
- Absorption
- Direct contact
- Open wound

Inhalation

- Throat and lungs

Ingestion

- Mouth / gastrointestinal tract



Harmful Physical Agents

○ Heat

○ Noise

○ Vibrations

○ Ionizing and Non-ionizing radiation



Safety Data Sheets

- Manufacturer's recommendation on how to use the chemical safely
- **All** chemicals should have an SDS available. Each time a new chemical is acquired it must be added to the binder located in each custodial office.
- 16 section, standard format

Safety Data Sheet Format

- 1. Identification of the substance or mixture and of the supplier**
- 2. Hazards identification**
3. Composition/information on ingredients
- 4. First-aid measures**
5. Fire-fighting measures
- 6. Accidental release measures**
7. Handling and storage
- 8. Exposure controls/personal protection**
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. *Ecological information*
13. *Disposal considerations*
14. *Transport information*
15. *Regulatory information*
16. Other information, including date of preparation or last revision

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
 Product Name Clorox Splash-Less Regular Bleach
Other means of identification
 Synonyms None

Recommended use of the chemical and restrictions on use
 Recommended Use Bleach
 Uses advised against No information available

Details of the supplier of the safety data sheet
 Supplier Name The Clorox Company
 Supplier Address 1221 Broadway
 Oakland
 CA
 94612
 US
 Supplier Phone Number Phone: 1-510-271-7000
Emergency telephone number
 Company Emergency Phone For Medical Emergencies call: (800) 446-1014
 Number Transportation Emergencies, call Chemtrec: (800) 424-9300
 Emergency Telephone Number 1-800-446-1014

2. HAZARDS IDENTIFICATION

Classification
 This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
 Serious eye damage/eye irritation Category 2A

GHS Label elements, including precautionary statements

Emergency Overview	
Signal word	Warning
Hazard Statements Causes skin irritation Causes serious eye irritation	
	
Appearance	Clear, pale yellow
Physical state	Liquid
Odor	Bleach

Hazard pictogram and signal words

Let's look at an SDS

Precautionary Statements - Prevention
 Wash face, hands and any exposed skin thoroughly after handling

Wear eye/face protection
 Precautionary Statements - Response

Eyes
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
Skin
 If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Storage
 None
 Precautionary Statements - Disposal
 None

Hazards not otherwise classified (HNOC)

Not applicable
Other information

Very toxic to aquatic life with long lasting effects
Interactions with Other Chemicals
 Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, and ammonia-containing products to produce hazardous gases, such as chlorine and other chlorinated compounds.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms None.

Chemical Name	CAS-No	Percent	Trade Secret
Sodium hypochlorite	7681-52-9	1-6	*
Sodium hydroxide	1310-73-2	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice Show this safety data sheet to the doctor in attendance.
Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention if irritation develops and persists. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.
Skin contact Take off contaminated clothing. Rinse immediately with plenty of water and seek medical advice. Get medical attention if irritation develops and persists.
Inhalation Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. Call a physician or Poison Control Center immediately.
Ingestion Drink 1 or 2 glasses of water. Call a physician or Poison Control Center immediately. Do not induce vomiting without medical advice.
Self-protection of the first aider Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning, Irritating.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

Precautionary statement

First Aid Measures

Let's look at an SDS

Labels



1 METHANOL

UN No. 4301
CAS No. 29-75-6

2 DANGER

3 Highly flammable liquid and vapor. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to eyes by ingestion.

4 Keep away from heat, sparks and open flames. No smoking. Keep container tightly closed. Do not breath vapors. Do not eat, drink or smoke when using this product. Wear protective gloves and clothing. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area.

5 ABC Chemical Company • 123 Main Street • Allston, MA 02134 • www.abc.com • 617.555.1212

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1.Product identifier to define chemical ingredients

2.Signal words such as “DANGER” or “WARNING”

3.Hazard statements such as “Fatal if swallowed”

4.Precautionary statements regarding storage, disposal and/or handling

5.Company identifying information

6.Hazard symbols or pictograms surrounded by a red diamond (Note: the red diamonds cannot be left blank)



What's missing?

Make sure all containers are labeled with a descriptive name and hazard warning.

HazCom – Label elements: GHS Pictograms



Pictogram Meanings

Physical Hazards



- Explosives
- Self-Reactives
- Organic Peroxides



- Oxidizers



- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

- Gases Under Pressure



Pictogram Meanings

Physical/Health Hazard



○ Corrosive

Pictogram Meanings

Health Hazards



- Acute Toxicity (severe)

- Carcinogen
- Respiratory Sensitizer
- Reproductive Toxicity
- Target Organ Toxicity
- Mutagenicity
- Aspiration Toxicity



- Irritant
- Dermal Sensitizer
- Acute Toxicity (harmful)
- Narcotic effects
- Respiratory Sensitizer
- Irritation

- Aquatic Toxicity

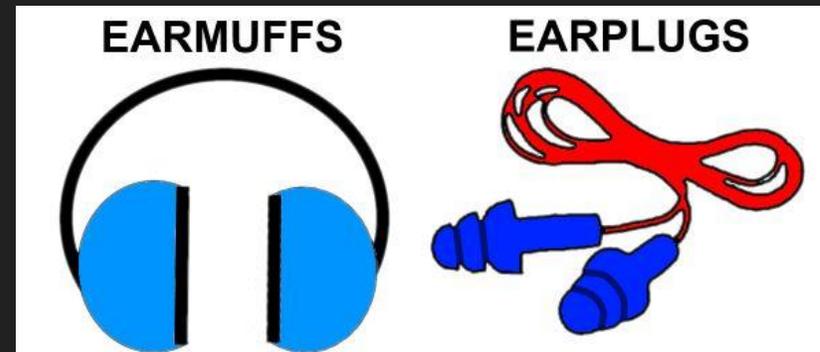
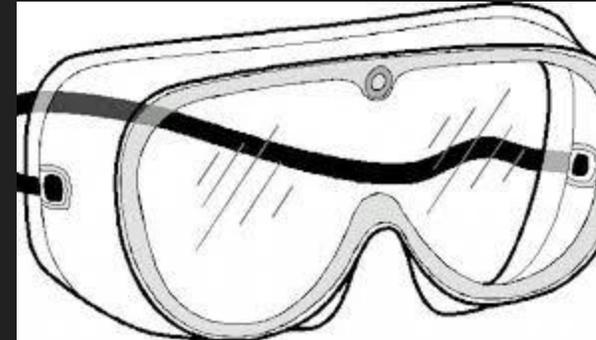


Control or Eliminate the Hazard

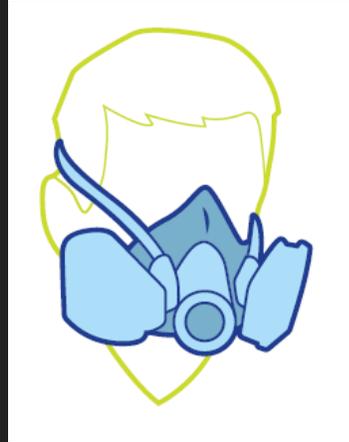
- Ventilation - use local exhaust
- Use least toxic solvent/chemical possible
- Use personal protective equipment
- Reduce speed or otherwise dampen noise on equipment
- Employees authorized to conduct Lockout/Tagout must shut off and lock-out all power sources, including electrical, mechanical, hydraulic, and pneumatic, before servicing or maintenance activities are performed on equipment
- Do not eat or allow food in work areas

Methods of Protection

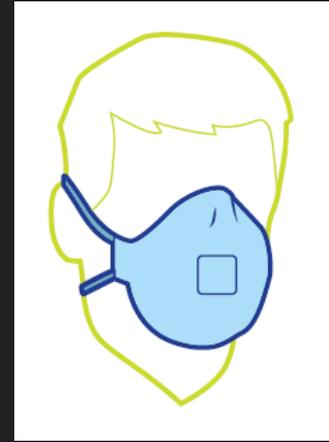
- Safety Goggles or Glasses
 - Chemical splash goggles – use when handling chemicals
 - Glasses for wood dust, metal shavings
- Gloves
 - Disposable – only use once!
 - Reusable – Heavy duty, clean immediately after use
 - Heat resistant
- Ear Protection
 - Ear plugs
 - Ear muffs



Methods of Protection



Half-face respirator



Dust mask

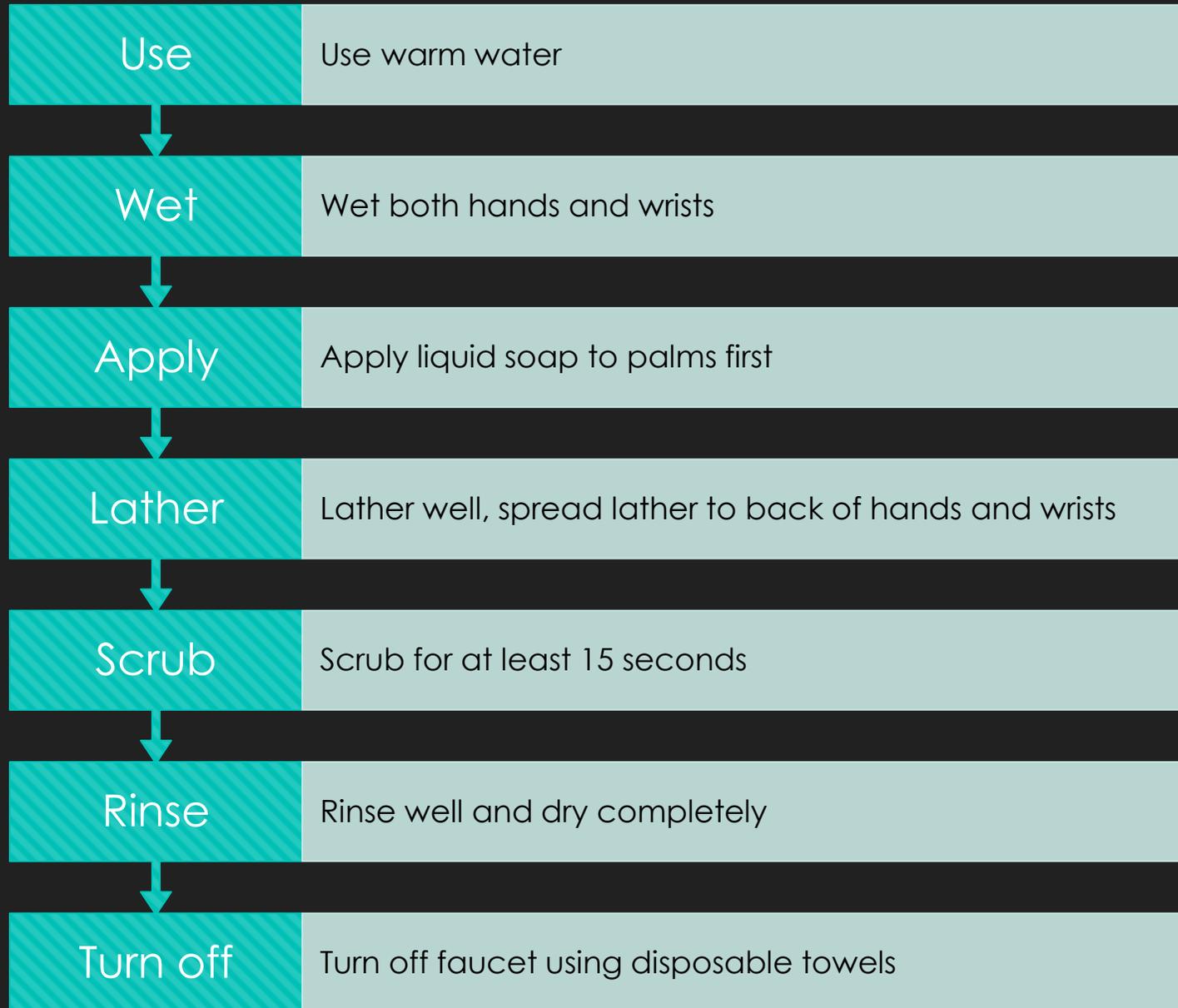
- If using a half-face respirator you must comply with the Respiratory Protection Program
- If using N95/dust mask, user must review and sign “Voluntary User” form

What is wrong with this picture?



Fire extinguishers should *not* be kept in a cabinet!
Flammable items should be kept in a “flammables cabinet.”
Fuel cylinder should *not* be kept in a cabinet!

Wash Your Hands



Emergency Procedures

- Know where eyewash is located
- Immediately report to health office if exposed
- Contact supervisor for spills greater than one gallon



Eyewash Stations



- ⦿ Eyewashes and emergency showers are secondary items of protection.
- ⦿ Plumbed eyewashes & showers are to be flushed and recorded once per week (3 minutes minimum).
- ⦿ Portable eyewash stations are to be checked weekly to make sure they are accessible & fluid hasn't been discharged

Note: Life of fluid is approximately two years

Check expiration date!

Hazardous Waste

- Must be labeled as “hazardous waste” with a descriptive name and date
- Paper towels, rags used for stains may be thrown in trash
- Paper towels, rags used for thinners must be disposed of as hazardous waste
- Aerosol cans that are empty may be thrown in trash; if there is any product left in an aerosol can it must be disposed of as hazardous waste
- Latex paint may be thrown in trash if solid (no liquid left)
- Oil-based paints or stains must be disposed of as hazardous waste, regardless of liquid/solid

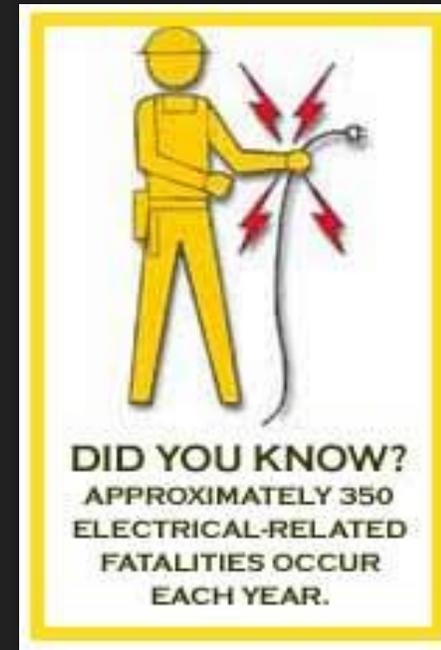
Machine Guarding

- All hazards associated with a machine shall be guarded
- Machines shall be anchored to the floor or bench top
- Guards should never be taken off or moved aside – be a good role model for students!
- If a guard breaks, take equipment out of service and contact head custodian for repair
- Grinder wheels should have no more than $\frac{1}{4}$ inch space at top and $\frac{1}{8}$ inch space at bottom



Electrical Safety

- Do not service equipment unless it is locked out first.
- Only the head custodian is authorized to conduct lockout/tagout on hard-wired equipment
- Electrical cords should never be repaired, especially with duct tape
- Frayed or worn cords should be replaced
- Equipment should have a 3-prong (grounded) plug or be double insulated



Compressed Gas



- Gas cylinders should be labeled with contents and whether empty/full
- Gas cylinders should be chained to the wall
- Fuel (acetylene) and oxygen cylinders are to be stored at least 20 feet away from heat sources or combustible materials or with a fire rated wall in between them, unless being used

Welding Hazards

- Use proper gloves, apron, and goggles/face mask
- Always weld behind a curtain or behind closed doors (not in front of others)
- Ensure adequate ventilation is available in the welding area
- Supervision of students while welding is a must
- Make sure you have proper personal protective equipment



Asbestos

- A group of naturally occurring minerals that can be separated into fibers.
 - Naturally occurring mineral
 - “Fiber” crystals
 - High tensile strength
 - Poor conductor of heat & electricity
 - Does not burn under normal conditions
 - Does not chemically break down under normal conditions

- Mold and mildew resistant
- Lightweight
- Highly attractive as a building material as it was plentiful and relatively cheap
- Problematic when inhaled or ingested
- Aerodynamic



Uses of Asbestos

Thermal System Insulation (TSI)

- Pipe Insulation
- Boiler Insulation
- Mechanical Insulation

Surfacing Material

- Spray or Troweled Application
 - Fireproofing
 - Acoustical
 - Decorative

Miscellaneous

- Floor Tile
- Ceiling Tile
- Gaskets & Cements
- Mastics & Adhesives

Roofing Materials

- Membranes
- Flashings
- Insulation
- Patching Materials
- Shingles
- Siding



Diseases Associated with Asbestos

- Asbestosis - scarring of the lungs
- Lung Cancer - the carcinogenic capability of asbestos causes the scar tissue to mutate, resulting in cancer
- Mesothelioma - a cancer form caused only by asbestiform mineral exposure. Affects the lining of chest cavity or abdomen called the pleura mesothelium and peritoneal mesothelium respectively.



Asbestos Friability

- Friable Asbestos-Containing Material (ACM) is any material containing more than one percent asbestos that when dry may be crumbled, pulverized, or reduced to powder by hand pressure. It also refers to non-friable materials which release dust when they are impacted or removed.



QUESTIONS?

Cassie Bowser

IEA, Inc.

507-345-8818

Cassandra.Bowser@ieainstitute.com



The background of the slide features a microscopic view of various biological structures, including large, clear, spherical cells and smaller, more complex bacterial-like organisms. The color palette is warm, with shades of orange, red, and brown. On the right side, there are abstract, overlapping geometric shapes in similar colors, creating a modern, layered effect.

Infectious Disease and Bloodborne Pathogens Training

Purpose of OSHA Standard

- ▶ To reduce or eliminate occupational exposure to potentially infectious materials which could cause disease or death.
- ▶ Designed to protect 5.6 million workers in healthcare and related occupations.

What's In It For Me?

- ▶ **Reminder on how to protect yourself from infectious diseases, including Bloodborne Pathogens (BBPs)**
- ▶ **Satisfy OSHA requirement for annual training**

Infectious Diseases

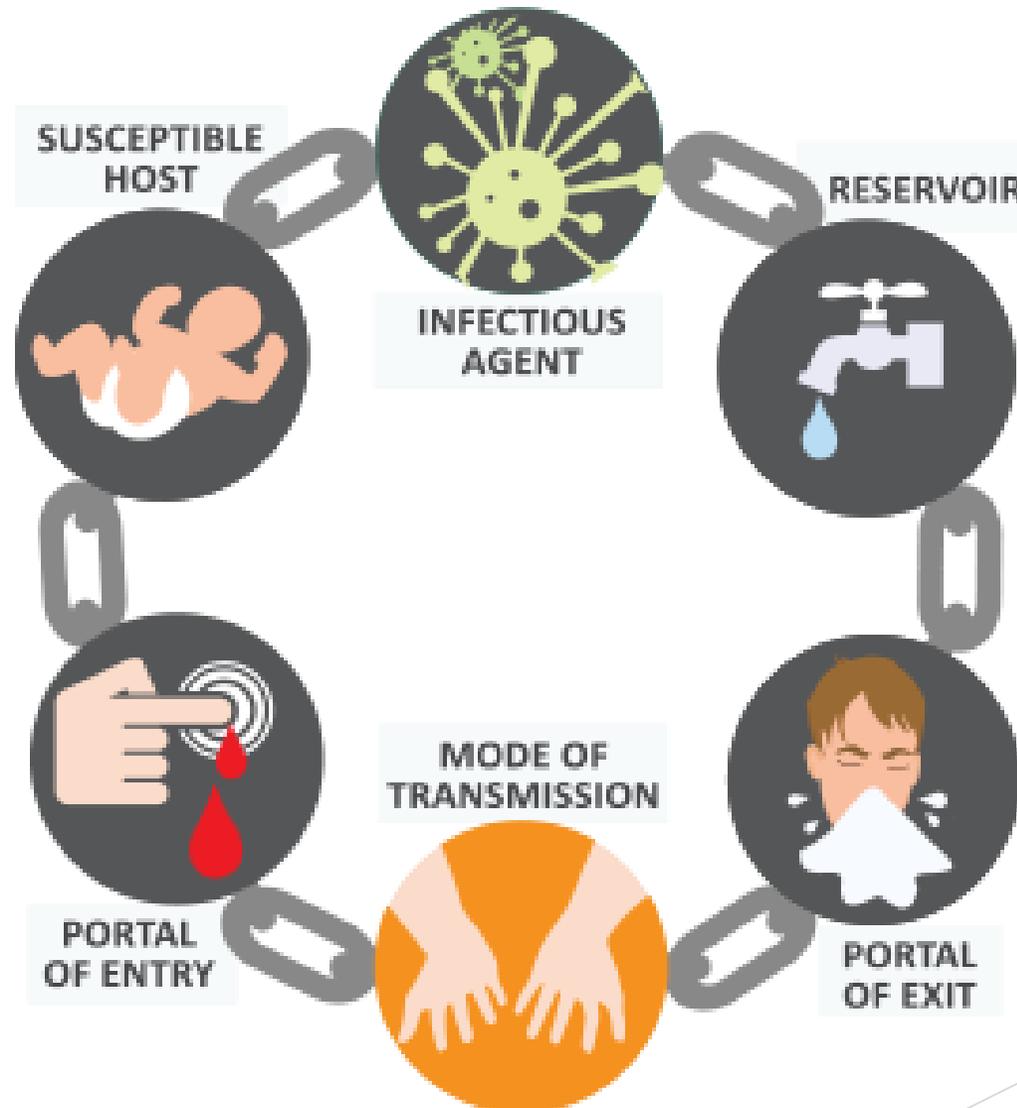
A disease caused by a microorganism or other agent, such as a bacterium, fungus, or virus, that enters the body of an organism



Common Infectious Agents

- ▶ **Chicken pox (varicella-zoster virus)**
- ▶ **Conjunctivitis (Pink eye)**
- ▶ **Influenza (flu)**
- ▶ **Human papillomavirus (HPV) (warts)**
- ▶ **MRSA (methicillin-resistant staphylococcus aureus)**
- ▶ **Pertussis (whooping cough)**
- ▶ **Strep Throat**
- ▶ **Bloodborne Pathogens**

The Infection Chain



Definition of Bloodborne Pathogen

- Pathogenic microorganism
- Present in human blood
- Can cause disease in humans

Most common BBPs are:

- Hepatitis B
- Hepatitis C
- HIV

BBP Program Requirements

- Evaluation of employee activities
- Develop Exposure Control written plan
- Designate a Program Coordinator
 - Alyssa Anderson
- Practice Universal Precautions
- Hepatitis B vaccinations and titers
- Post exposure procedures
- Personal protective equipment
- Training
- Annual review
- Recordkeeping



Who is covered in
your district?

Who Does it Cover?

- ▶ All employees for whom exposure can be “reasonably anticipated” as part of their normal job duties
- ▶ Health care occupation primary focus
- ▶ Employer responsible for evaluating potential for exposure
- ▶ Excludes Good Samaritan activities

Who is typically covered in school districts?

Nurses

Health Office Assistants

Special Education Teachers/Paras

Coaches/Trainers/Lifeguards

Custodians

Transportation Staff

Playground Assistants

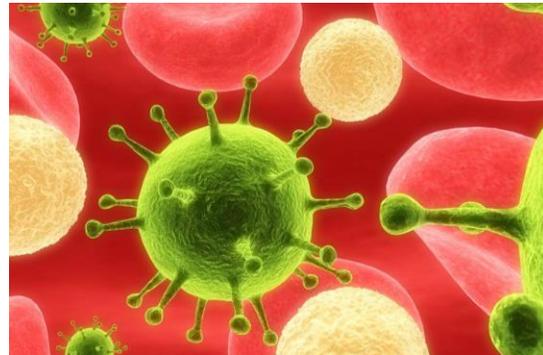
Early Education/Daycare Staff

- ▶ **HIV**
- ▶ **Hepatitis B (HBV)**
- ▶ **Hepatitis C (HCV)**



Human Immunodeficiency Virus

- ▶ Attacks immune system
- ▶ Not vaccine preventable
- ▶ Virus is killed easily outside the body



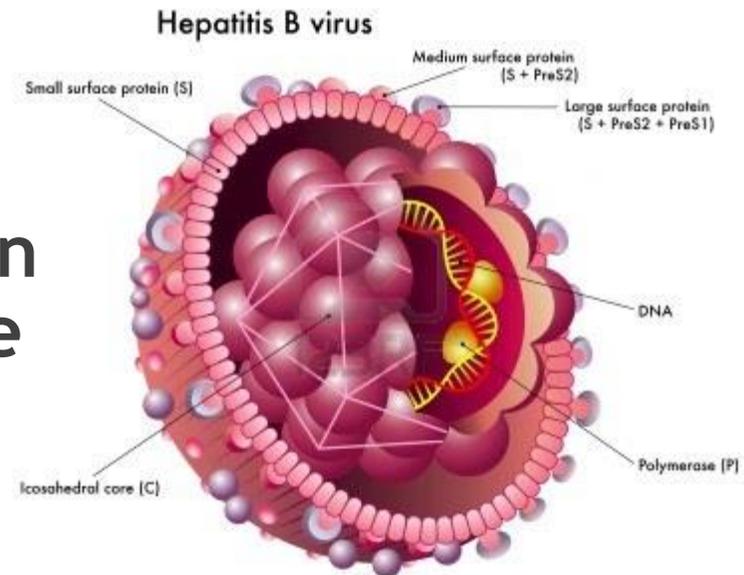
Symptoms of HIV

- ▶ Weakness
- ▶ Fever
- ▶ Sore throat
- ▶ Nausea
- ▶ Headaches
- ▶ Diarrhea
- ▶ Sometimes no immediate symptoms



Hepatitis B Virus (HBV)

- ▶ Attacks liver
- ▶ 6-10% of people infected after age five become chronic
- ▶ Death occurs in 15-25% of chronically infected people
- ▶ Vaccine preventable
- ▶ Virus is only killed by high-level bactericides it can live up to 7 days outside the body



Symptoms of Hepatitis B

- **Fatigue**
- **Possible stomach pain**
- **Loss of appetite**
- **Nausea**
- **Jaundice**
- **Darkened urine**
- **Sometimes asymptomatic (~30%)**

Hepatitis B Vaccination

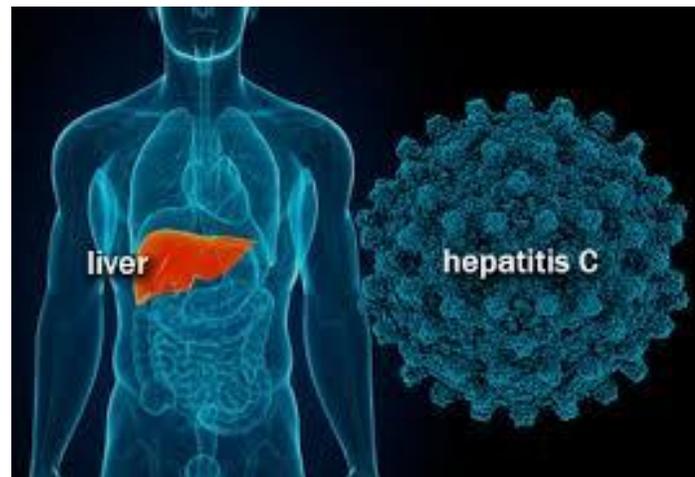
- ▶ **Three injections in deltoid muscle**
- ▶ **Mild to no side effects**
- ▶ **Produces only one antibody**
- ▶ **Vaccine has been available since 1982**

Hepatitis B Vaccination

- ▶ **Series of three injections**
- ▶ **Vaccination Schedule**
 - ▶ Initial
 - ▶ One month after initial
 - ▶ Four to six months after initial
- ▶ **95% effective when all doses taken**

Hepatitis C (HCV)

- ▶ Attacks liver
- ▶ 50-55% develop chronic liver disease
- ▶ FDA to approve potential new cure for chronic HepC



Symptoms of Hepatitis C

- ▶ **80% of carriers are asymptomatic and may be for 20-30 years**
- ▶ **Fatigue**
- ▶ **Weight loss**
- ▶ **Nausea**
- ▶ **Depression**

Modes of Transmission

- ▶ Sexual contact
- ▶ Saliva (dental procedures only)
- ▶ Exposure to another person's blood
 - ▶ Contaminated needle sharing
 - ▶ Blood contact with non-intact skin or mucous membranes
 - ▶ Transfusions
- ▶ Infected mother to child
- ▶ Most new cases are from IV drug use

Common Occupational Transmission



- ▶ Needle-sticks
- ▶ Contaminated sharps/glass/ceramics
- ▶ Mucous membranes (eyes, nose, mouth)
- ▶ Open wound that is exposed to someone else's blood (includes skin rash, dermatitis broken cuticles, cut)

**Important to discuss job responsibilities
up front prior to start of work!**

Universal Precautions

**It is your responsibility to treat every
everyone as if they are infected with a BBP, no
matter how unbelievable it may seem.**



Engineering Controls: Safe Needles Devices

District will:

- ▶ Review Exposure Control Plan including tasks and procedures for possible sharps injuries - annually
- ▶ Review exposure incident records for needle stick injuries
- ▶ Document considerations and implementation of effective engineering controls
- ▶ Maintain Sharps Injury Log - list type and brand of device used

Engineering Controls - Sharps

- ▶ **Sharps containers**
 - ▶ **Closable**
 - ▶ **Puncture resistant**
 - ▶ **Leak proof**
 - ▶ **Labeled or color coded**
- ▶ **Determine sharp disposal method**
 - ▶ **Use licensed contractor**
 - ▶ **Deliver to local hospital**
 - ▶ **Mail-in systems**

Administrative Controls

- ▶ **No food or application of cosmetics in the area where blood or other body fluids are present!**
- ▶ **Direct victims in self-care where possible**
- ▶ **Hand-washing facilities**

District's Exposure Control Plan

- ▶ Employees at risk to exposure are eligible to receive the Hepatitis B vaccine series at the school district's expense.
- ▶ Fill out the Intent or Decline form.
- ▶ Only necessary to have Hepatitis series vaccine series once. Lasts a lifetime.
- ▶ Box to check if already have received.

Hand-washing



- ▶ Use warm water only
- ▶ Apply liquid soap to palms first
- ▶ Lather well; spread lather to back of hands and wrists
- ▶ Scrub for at least 15 seconds, including fingernails and area between fingers
- ▶ Rinse well & dry completely
- ▶ Turn off faucet using disposable towels

Personal Protective Equipment

- ▶ Possible PPE needed for protection from Bloodborne Pathogens:
 - ▶ Gloves - *latex alternative*
 - ▶ Smock/aprons
 - ▶ Eye protection
 - ▶ Paper face masks
 - ▶ CPR masks
 - ▶ Face shields
 - ▶ Booties

Gloves



- ▶ Don prior to contact with blood
- ▶ Check for proper fit
- ▶ Check for punctures
- ▶ Wash hands before/after
- ▶ Pull snug to insure good fit
- ▶ Peel off from wrist to fingers
- ▶ Dispose of in waste container
- ▶ Do not reuse

First Aid Procedures

- ▶ Use personal protective equipment
 - ▶ Instruct injured person on self-care
 - ▶ Wash hands thoroughly
 - ▶ Report if required by district
-
- ▶ **NOTE:** If the employer has people trained in first aid, then adequate first aid supplies must be readily available for use.



Cleaning Procedures

- ▶ Use disposable gloves & eye protection
- ▶ Use disposable towels to absorb spill
- ▶ Clean spill area with soap and water
- ▶ Use proper disinfectant
- ▶ Allow to air dry (5-15 minutes)
- ▶ Dispose of waste (including disposable gloves) in proper container

**CONTACT CUSTODIAL STAFF FOR
CLEAN UP WHENEVER POSSIBLE!**

Infectious Waste

- Typically in normal trash
- Red biohazard bags require special disposal procedures.
Use only IF:
 - Saturated or dripping
 - Pourable



What is an Exposure?



- ▶ Blood contact with mucous membranes
- ▶ Blood contact with broken skin
 - ▶ Dermatitis, cuticles, cuts
- ▶ Piercing mucous membranes or skin
 - ▶ Needle sticks, bites, cuts

Post-Exposure Procedures

For Exposed Individuals:

- ▶ Wash exposed area thoroughly (up to 15 minutes)
- ▶ Report incident to supervisor ASAP
- ▶ Fill out internal paperwork as necessary (First Report of Injury/Sharps Injury Log)
- ▶ Proceed to local health care provider for exam and follow-up

Post-Exposure Procedures

- ▶ Identify source individual
- ▶ Blood test for source individual (if authorized)
- ▶ Blood test for exposed individual (if authorized)
- ▶ Findings & diagnosis confidential
- ▶ Treatment and counseling by physician (if indicated)

Recordkeeping

- ▶ ***Medical***

- ▶ Duration of employment + 30 years

- ▶ ***Sharps Log***

- ▶ Five years beyond completion of that calendar year

- ▶ ***Training***

- ▶ Three years

- ▶ ***Exposure Incident***

- ▶ Duration of employment + 30 years

Follow the link
to complete your training:

https://docs.google.com/forms/d/e/1FAIpQLScW5ULZjwMrklp5SLSuQsczpUq2jA8rKku0QRlO8SKxv60ngg/viewform?usp=sf_link



Cassie Bowser

IEA, Inc.

507-345-8818

Cassandra.Bowser@ieasafety.com