

TSTC HARLINGEN

BLOODBORNE

PATHOGENS

ANNUAL UPDATE



# BLOODBORNE PATHOGENS

## OSHA Standard (29 CFR 1910.1030)

- ◆ Provides Requirements Of Employer
- ◆ Requires Identifying At-Risk Employees
- ◆ Requires Training For At-Risk Employees
- ◆ Requires Retraining Within 365 Days
- ◆ Requires HBV Vaccination Opportunity
- ◆ Requires A Written Exposure Control Plan

# BLOODBORNE PATHOGENS

- ◆ What Are They?
- ◆ What Do They Mean To You?



# BLOODBORNE PATHOGENS



- ◆ Bloodborne: Carried By And Lives In Human Blood (Or Other Body Fluids Or Substances)
- ◆ Pathogen: A Micro-Organism (Virus, Fungus, Or Bacteria) That Can Cause A Disease

# TYPES OF PATHOGENS



- ◆ Virus: A Parasitic Microscopic Protein Material (DNA Or RNA) Covered By An Envelope Of Lipoprotein. Nonliving
- ◆ Bacteria: One-Celled Living Organism
- ◆ Fungi: Single And Multi-Celled Plants
- ◆ Yeast: One Celled, Oval Shaped Fungus
- ◆ Mold: A Growth Of Fungi

# ILLNESSES PATHOGENS CAUSE

- ◆ Virus: Measles, Colds, Mumps, Influenza, Polio, Hepatitis A, B, & C, AIDS, Measles, Herpes
- ◆ Bacteria: Pneumonia, Tuberculosis, Typhoid, Tetanus
- ◆ Yeasts & Molds: Meningitis, Asthma, Allergies

# HOW PATHOGENS ENTER THE BODY

- ◆ Through Alimentary Canal
- ◆ Through Parenteral Openings
- ◆ Through Mucous Membranes
  - In Mouth, Nose, And Eyes
  - By Sexual Contact





# HEPATITIS A VIRUS

- ◆ Acquired Primarily Through The Fecal-Oral Route - NOT A BLOODBORNE PATHOGEN
- ◆ The “Restaurant” Kind of Hepatitis
- ◆ Causes An Infection Of The Liver
- ◆ Cannot Be Identified From Other Hepatitis Forms W/O Testing



# HEPATITIS A VIRUS

- ◆ Can Be Stable For Up To 18 Months
- ◆ Heating Foods Above 180° F. For 1 Minute Will Kill
- ◆ Good Hygiene (Washing Hands) Can Prevent
- ◆ A 1:10 Solution Of Household Bleach Is A Good And Inexpensive Disinfectant

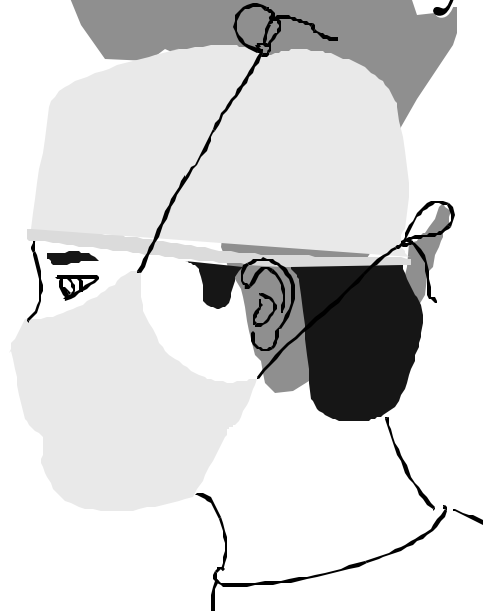
# SYMPTOMS OF HAV



- ◆ Flu-like, Fatigue, Appetite Loss
- ◆ Colon Ulcers and Inflammation
- ◆ Lung Disease, Anemia Increase
- ◆ Jaundice, Liver Problems
- ◆ Fever, Acne, and Joint Pain

# HEPATITIS B VIRUS

- ◆ Very Contagious, Dangerous Infection
- ◆ 100 Times More Contagious Than HIV (Human Immunodeficiency Virus)



# HEPATITIS B VIRUS

- ◆ Contracted From Contact with Blood, Blood Products, And Other Body Substances
- ◆ Some People Are Carriers, Never Get Sick, And Can Infect Others





# HEPATITIS B VIRUS

- ◆ Affects Different Individuals Differently
- ◆ No Cure, But There Are Preventive Vaccines
- ◆ Cannot Be Identified From Other Forms Without Testing



# SYMPTOMS OF HBV

- ◆ Flu-like, Fatigue, Appetite Loss
- ◆ Colon Ulcers & Inflammation
- ◆ Lung Disease, Anemia Increase
- ◆ Jaundice, Liver Problems
- ◆ Fever, Acne, & Joint Pain



# HEPATITIS C VIRUS

- ◆ A Viral Infection of the Liver
- ◆ Spread By Contact With Blood (or Other Potentially Infectious Materials) of an Infected Person
- ◆ Current Risk Rate is 1:10,000



# HEPATITIS C VIRUS

- ◆ Once Contracted, Over 70% Chronic
- ◆ Cannot Be Identified From Other Forms Without Testing
- ◆ No Preventive Vaccine Available Yet



# SYMPTOMS OF HCV

- ◆ Flu-like, Fatigue, Appetite Loss
- ◆ Colon Ulcers & Inflammation
- ◆ Lung Disease, Anemia Increase
- ◆ Jaundice, Liver Problems
- ◆ Fever, Acne, & Joint Pain

# HUMAN IMMUNODEFICIENCY VIRUS (HIV)

- ◆ Spread By Exchange Of Human Blood, Human Blood Products, Or Other Potentially Infectious Materials
- ◆ Attacks Body's Immune System
- ◆ May Take Years To Show Positive Signs

# HUMAN IMMUNODEFICIENCY VIRUS (HIV)

- ◆ Usually Develops Into AIDS
- ◆ AIDS Never Kills
- ◆ Death Caused By Other Infections
- ◆ Far Less Contagious Than HBV



# SYMPTOMS OF HIV

- ◆ Fatigue
- ◆ Night Sweats
- ◆ Weight Loss
- ◆ Gland Pain Or Swelling
- ◆ Muscle And Joint Pain
- ◆ Fever

# PREVENTION TECHNIQUES



- ◆ Universal Precautions Or Body Substance Isolation
- ◆ HBV Vaccine & HBIG Shot
- ◆ Engineering Controls
- ◆ Work Practice Controls
- ◆ Personal Protective Equipment

# UNIVERSAL PRECAUTIONS

- ◆ Treat All Human Blood And Other Potentially Infectious Materials (OPIM) As A Possible Source Of Contamination And Infection



# UNIVERSAL PRECAUTIONS

## BODY FLUIDS

- ◆ Human Blood Or Products Made From Human Blood
- ◆ Saliva In Dental Procedures
- ◆ Semen & Vaginal Secretions

# UNIVERSAL PRECAUTIONS BODY FLUIDS

- ◆ Fluids Surrounding Body Organs
- ◆ Any Fluid Containing Human Blood
- ◆ Any Unidentifiable Body Fluid

# BODY SUBSTANCE ISOLATION FLUIDS

- ◆ Nasal Secretions
- ◆ Sputum
- ◆ Sweat Or Tears
- ◆ Vomitus
- ◆ Feces
- ◆ Urine

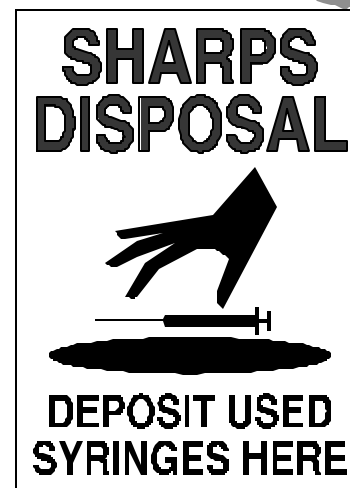
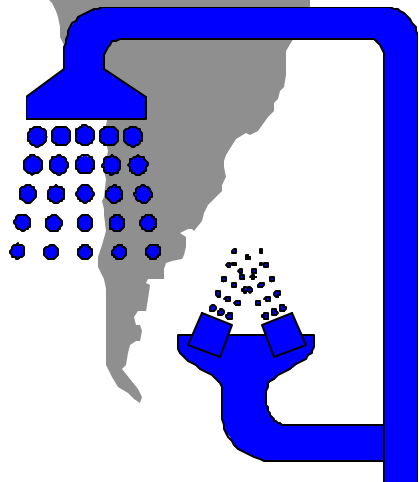


# HBV VACCINE

- ◆ Employer Must Always Provide At-Risk Employees With The Opportunity
- ◆ Employee Must Take Shots OR Sign A Declination Form
- ◆ Three Shots Over Six Months
- ◆ 95% Effective And Few After-Effects
- ◆ HBIG Shot After Exposure

# ENGINEERING CONTROLS

- ◆ Any Physical Device Or Equipment Used Or Installed To Prevent Occupational Hazard Exposure, Illness, Or Injury
- ◆ Examples: Gloves, Eye Wash Stations, Sharps Containers, Broom And Dust Pan





# WORK PRACTICE CONTROLS

- ◆ The Process And Procedures Used To Assure Work Is Conducted In A Safe And Healthy Manner
- ◆ Examples: Washing Hands After Wearing Gloves, Not Reusing Needles, Always Wearing Eye Protection In Labs, Never Touching Broken Glass With Bare Hands, Etc.



# WORK PRACTICE CONTROLS

- ◆ Minimize Splashing, Spraying, Misting, Etc.
- ◆ Mouth Suctioning Of Blood Or Other Potentially Infectious Materials Prohibited
- ◆ Proper Decontamination And Sterilization
- ◆ Cleanup Care And Maintenance Of Equipment

# WORK PRACTICE CONTROLS



- ◆ No Eating, Drinking, Smoking, Applying Cosmetics Or Lip Balm, Or Handling Contact Lenses Where There Is A Risk Of Contamination
- ◆ Proper And Timely Handwashing (The Greatest Deterrent To Infection)

# PERSONAL PROTECTIVE EQUIPMENT



◆ LATEX GLOVES

◆ GOWNS

◆ APRONS

◆ FACE SHIELDS

◆ MASKS

◆ GOGGLES

◆ HARD HATS

◆ STEEL TOED  
BOOTS

◆ RUBBER COATS

◆ RUBBER BOOTS

◆ CPR MICROSHIELD

◆ RESPIRATORS

◆ SCBA GEAR



# HOUSEKEEPING

- ◆ Keep Work Area Clean, Dry, And Uncluttered
- ◆ Follow Regular Routines In Inspecting Equipment
- ◆ Follow Exposure Control Plan To Clean Spills Or Releases

# HOUSEKEEPING

- ◆ Keep Storage Areas Free From Hazards
- ◆ Properly Label And Handle Hazardous Materials And Hazardous Waste

**HAZARDOUS  
WASTE**

ACCUMULATION  
START DATE \_\_\_\_\_

CONTENTS \_\_\_\_\_

**HANDLE WITH CARE**

CONTAINS HAZARDOUS OR TOXIC WASTE

# BIOHAZARD WASTE DISPOSAL



- ◆ Biohazard Bags Must Be Florescent Red, Or If Another Color, Labeled With Black Symbol On Red Background
- ◆ Sharps: Put Nothing But Sharps (Needles, Broken Glass, Knives, Scissors, Etc.) In A Sharps Container

# POST-EXPOSURE PROCESS



- ◆ Call Emergency Response
- ◆ Report Exposure Or Suspected Exposure To Your Supervisor
- ◆ To Minimize Exposure Of Others, Isolate Affected Area

A grayscale world map is visible in the background of the slide, showing the outlines of continents and major landmasses.

# POST-EXPOSURE PROCESS

- ◆ If Giving Assistance, Don Appropriate PPE
- ◆ Disinfect Yourself Immediately
- ◆ Clean And Disinfect Accident Area
- ◆ Properly Dispose Of Regulated Waste



# REPORT INCIDENT IMMEDIATELY

- ◆ Report How, When, Where, Who, Etc.
- ◆ Determine And Include The Source Of Blood
- ◆ Describe Events In As Much Detail As Possible
- ◆ Submit Report To Your Supervisor

# POST-EXPOSURE TESTING OF SOURCE PERSON

- ◆ If Person Is Known, Oklahoma Requires Source Individual To Be Tested (Federal Does Not)
- ◆ Results Are Required To Be Made Known To Victim And Employer
- ◆ All Test Records Are Otherwise Confidential



# POST-EXPOSURE MEDICAL CARE

- ◆ If Work Related, Must Be Provided By The Employer
- ◆ Only The Victim's Medical Records Pertaining To The Incident May Be Viewed As Part Of The Follow-Up
- ◆ Written Report Due To The Employer From The Health Professional Within 15 Days



# CAUTIONS AND REMINDERS

- ◆ Is It An Accident Or Incident?
- ◆ Do Not Attempt To Help Beyond Skill Or Expertise
- ◆ If The Victim Is Conscious, Let Them Control Their Own Blood Flow
- ◆ Never Touch Other's Blood Or OPIM!