

## Rules and Regulations

Administrative Regulations  
Policy 117.0  
Bloodborne Pathogens



### **Purpose:**

The following policy is mandated by the Occupational Safety and Health Administration (OSHA) regulations on occupational exposure to blood borne pathogens, 29CFR Part 1910.103. A complete copy of this regulation is available in the Fire Chief's office.

This Policy was provided by the State of Ohio Department of Health and the Williams County Department of Health in an effort to assist the Bryan Fire Department comply with these regulations. The effective date of this Policy is June 24, 1992.

### **Policy:**

#### Exposure Control Plan

Since personnel working in this department are exposed to individuals infected with HIV, HBV, or other blood borne pathogens, and examination cannot reliably identify these individuals, the following SOG shall be consistently used.

The plan shall include:

1. Definitions and terms
2. Universal Precautions Guidelines
3. Hepatitis B Vaccination Policy
4. Release of Liability for Hepatitis B
5. Management of Exposures
6. Post Exposure Report
7. Informed Consent to HIV antibody testing
8. Job Exposure Determination
9. Housekeeping

Each new employee will receive a copy of this plan and receive orientation and training on its contents no later than ten (10) working days after release to respond on emergency calls. Documentation of employee training and orientation of this plan will be kept in the training records of the department.

Copies of this plan will be issued to all employees and a copy will be available for review from the Fire Chief. All personnel shall be expected to read and follow all recommended guidelines and policies.

This plan shall be reviewed annually and updated whenever necessary to reflect new or modified tasks and procedures which effect occupational exposure and to reflect new or revised employee positions with relation to occupational exposure.

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Training shall be given to all department employees annually and whenever the exposure control plan has been modified. Documentation of this training shall be kept on departmental training records.

Medical records shall be maintained for at least the duration of duty plus 30 years. Training records shall be kept for 3 years minimum. All records shall be kept confidential. Departmental employee records shall not be disclosed or reported without the employees expressed written consent to any person within or outside the department except as may be required by law.

For the purpose of this Policy, the following definitions shall apply:

Blood- means human blood, human blood components, and products made from human blood.

Blood borne Pathogens- means pathogenic microorganisms that are present in human blood and cause disease in humans. These pathogens include, but not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Contaminated- means the presence of, or the reasonably anticipated presence of, blood or other potentially infectious materials on an item or surface.

Contaminated Laundry- means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps- means any contaminated object that can penetrate the skin including, but not limited to needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination- means the use of physical or chemical means to remove, inactivate, or destroy blood borne pathogens on the surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Exposure Incident- means a specific eye, mouth, or other mucous membrane, non intact skin, or peritoneal contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

HBV- means Hepatitis B virus

HIV- means Human immunodeficiency virus.

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Occupational Exposure- means reasonable anticipated skin, eye, mucous membrane, or peritoneal contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other potentially infectious materials mean:

1. The following human fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
2. Any unfixed tissue or organ (other than intact skin) from a human (living or dead).

Peritoneal- means piercing mucous membranes or other skin barrier through such events as needle sticks, human bites, cuts and abrasions.

Personal Protective Equipment-means specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirt or blouses) are not considered to be personal protective equipment.

Source Individual- means an individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

Sterilized- means the use of a physical or chemical procedure to destroy all microbial life including resistant bacterial endospores.

Universal Precautions- is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other blood borne pathogens.

Regulated Waste- means liquid or semi liquid blood or other potentially infectious materials: contaminated items that would release blood or other potentially infectious materials in a liquid or semi liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological waste containing blood or other potentially infectious materials.

Work Place Controls- means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two handed technique).

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### Universal Precautions

Since medical history an examination cannot reliably identify all patients infected with HIV or other blood borne pathogens, blood and body fluid precautions shall be consistently used for all patients. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

1. Gloves (disposable-single use) should be worn for touching blood and body fluids, mucous membranes, or non intact skin of all patients, for handling item or surfaces soiled with blood or body fluids. Gloves should be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Gloves are in Rescue 25 and in all first aid trauma kits, extra gloves are available in the station for personnel wishing to carry a pair in their fire equipment.

Disposable (single-use) gloves shall not be washed or decontaminated for reuse. All gloves will be deposited in a marked container (after use and while still at the scene) for later disposal. Gloves will not be thrown on the ground or left where they may become accessible to the general public.

2. Goggles (available on all vehicles) shall be worn when body fluid contact is a possibility. Contaminated goggles should be placed in a container (trash bag) for later decontamination. Face shields on helmets should also be worn in conjunction with goggles or as stand alone protection.

3. Hands and other skin surfaces shall be washed thoroughly and immediately if contaminated with blood or body fluids. Hands shall be washed after gloves are removed. Waterless hand soap is available on Rescue 25 and Engine 21. Hands or other skin surfaces shall be washed with running water as soon as feasible.

4. Mucous membranes shall be flushed with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

5. Hands shall be kept away from the face, eyes, nose, etc. of the care giver while providing care.

6. All personnel shall take precautions to prevent injuries caused by needles and other sharp instruments or devices during procedures.

7. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited where there is a reasonable likelihood of occupational exposure.

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8. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

9. To minimize the need for direct mouth to mouth resuscitation, mouth to mask emergency resuscitation mask are available in all first aid trauma kits.

10. Surfaces soiled with blood or body fluids should be thoroughly washed with soap and water, then disinfected with a 10% solution of household bleach and water (1 pint bleach to 9 parts water). Personnel cleaning the equipment should wear gloves and wash hands thoroughly when finished.

### Hepatitis B Vaccination

The Hepatitis B vaccine and vaccination series shall be made available to all personnel.

The vaccine and vaccination series shall be available at no cost to the employee. It will be available from the Williams County Health Department and given by a licensed healthcare professional (R.N.).

The Hepatitis B vaccination shall be made available to all personnel who have occupational exposure within 10 days prior to release to run on emergency calls.

If an employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that an employee is immune, or the vaccine is contraindicated for medical reasons, the employee shall show written proof of this.

Participation in a prescreening program is not a prerequisite for receiving Hepatitis B vaccination's.

If an employee initially declines Hepatitis B vaccination but at a later date decided to accept the vaccination, the Hepatitis B vaccination will be made available at that time.

An employee who declines to accept the Hepatitis B vaccination shall sign a statement to that effect. (See enclosed form)

If a routine booster dose(s) of Hepatitis B vaccine is recommended by the U.S. Public Health Services at a future date, such booster dose(s) shall be available to all employees who have an occupational exposure.

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**Release From Liability for Hepatitis B**

As an employee of the City of Bryan, Ohio Fire Department, I understand that I am subject to occupational exposure to blood and other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I understand that Hepatitis B vaccine has an 80-95% efficiency level in providing protection from Hepatitis B when the completed series of three doses of vaccine are administered. I further understand that in addition to the acute illness, Hepatitis B virus infection can lead to a chronic carrier state, chronic hepatitis, cirrhosis, and is associated with a higher risk of liver cancer. I understand that there is no effective treatment or cure for Hepatitis B.

I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, **I decline Hepatitis B vaccination at this time.**

I understand that by declining this vaccine, I continue to be at risk in acquiring Hepatitis B.

I, therefore release the City of Bryan, Ohio and it's Fire Department of all liability should I develop acute Hepatitis B or any of its sequel.

If in the future, I continue to have occupational exposure to blood and other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me. I shall request said vaccinations in writing to the Fire Chief.

SIGNATURE:

\_\_\_\_\_SSN\_\_\_\_\_DATE\_\_\_\_\_

WITNESS SIGNATURE:

\_\_\_\_\_SSN\_\_\_\_\_DATE\_\_\_\_\_

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### Management of Exposures

If an employee of the department has a peritoneal (e.g., needle stick or cut) or mucous membrane (e.g., splash to the mouth) exposure to blood or other body fluids or has a cutaneous exposure involving large amounts of blood or prolonged contact with blood, especially when exposed skin is chapped, abraded, or afflicted with dermatitis, the source individual will be informed of the incident and tested as soon as feasible by serological evidence of HIV/HBV infection after consent is obtained. If consent is not obtained, the department shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

If the source individual is already known to be infected with HIV or HBV antibody, testing for the source individual's known HIV or HBV status need not be repeated.

Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

The exposed employee will be counseled by a medical doctor regarding the risk of infection. The exposed employee's blood shall be collected as soon as possible after the exposure and tested after consent is obtained.

If the employee consents to baseline blood collection, but does not give consent at the time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, such testing shall be done as soon as feasible.

The employee will be advised to report and seek medical evaluation for any acute febrile illness that occurs within 12 weeks after exposure. During this follow up period, the exposed employee should follow recommendations by the U.S. Public Health Service for preventing transmission.

All laboratory test shall be conducted by an accredited laboratory at no cost to the employee.

No further follow up of a employee exposed to infection as described above is necessary if the source individual is seronegative unless the source individual is at high risk of HIV infection. In the latter case a subsequent specimen (12 weeks following exposure) may be obtained from the employee for antibody testing.

If the source individual cannot be identified, decisions regarding appropriate follow up will be individualized in consultation with a medical doctor and the Chief of the department.



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The department will be responsible for maintaining all medical records relevant to the appropriate treatment of the employee.

The department will ensure that the health care professional (individual's physician and/or department medical doctor) that is evaluating the employees exposure is provided with the following information:

- A. A copy of this SOG.
- B. A description of the exposed employees duties as they relate to the exposed incident.
- C. Documentation of the route(s) of exposure and circumstances under which exposure occurred.
- D. Results of the source individual's blood testing, if available.
- E. All medical records relevant to the appropriate treating of the employee including vaccination status.

The department shall obtain and provide the employee with a copy of the evaluating health care professional's (individual's physician and/or department medical doctor) written opinion within 15 days of the completion of the evaluation.

The health care professional's written opinion for post exposure evaluation and follow up shall be limited to the following:

- A. That employee has been informed of the results of the evaluation.
- B. That the employee has been told about medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

All other findings or diagnosis shall remain confidential and shall not be included in the written report.

Medical records of this exposure shall be maintained for at least the duration of duty plus 30 years.

If the patient has a peritoneal or mucous membrane exposure to blood or other body fluids of an employee, the patient will be informed of the incident, and the same procedure outlined above for management of exposure will follow for both the source employee and the exposed patient.

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**Post Exposure Report**

Name \_\_\_\_\_ SSN \_\_\_\_\_ Date \_\_\_\_\_

Exposed Employee:

A. Describe in detail incident of exposure: (Document route (s) of exposure and the circumstances under which the exposure incident occurred): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Consent signed for serological testing of source individual \_\_\_\_yes \_\_\_\_no.  
If no, state why \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

C. Results of source individual's testing \_\_\_\_\_.

D. Consent signed for serological testing of exposed employee \_\_\_\_yes \_\_\_\_no.  
If no, state reason why \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

E. Results of exposed employees testing \_\_\_\_\_.

F. Further post exposure results of serological testing:

6 weeks \_\_\_\_\_ Date \_\_\_\_\_  
12 weeks \_\_\_\_\_ Date \_\_\_\_\_  
6 months \_\_\_\_\_ Date \_\_\_\_\_

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G. Describe counseling and follow up given to the exposed worker by the medical health care professional: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

H. If serological testing is positive, describe counseling given to both source individual and exposed worker concerning spread of disease, health maintenance etc.: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I. Health care professional's (individual physician and/or department medical doctor) opinion for post exposure evaluation and follow up: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Physician Signature \_\_\_\_\_ Date \_\_\_\_\_

Employee Signature \_\_\_\_\_ Date \_\_\_\_\_

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### Job Exposure Determination

Each job in the Bryan Fire Department has been evaluated according to task and procedures performed in relationship to job exposure.

Job occupational exposure means reasonable anticipated skin, eye, mucous membrane, or peritoneal contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. Other potentially infectious materials may be: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid, saliva, any body fluid that is visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. Also any unfixed tissue or organ (other than intact skin) from a human (living or dead).

Job Category 1- High Probability \* Blood exposure 1%  
\*\* Other exposure 50%

Personnel:

Firefighters  
EMT's  
Police Officers

Task and Procedures:

Administer first aid at scene  
Control bleeding  
Apply dressings  
Perform CPR  
Start IV's  
Extraction of personnel  
Examination of body  
Comes in contact with blood, emesis, urine and other body fluids

All fire department employees are in the State of Ohio Department of Health's, Job Category 1 and shall be advised and offered the Hepatitis B vaccination series. (See Hepatitis B Vaccination Policy) All employees in this category shall receive orientation and training in Universal Precautions upon assignment of duty.

Job exposure categories will be reviewed annually and updated as necessary to reflect new or modified task and procedures.

\*Blood- blood, genital secretions, tissue (CFS), synovial, amniotic, plural, peritoneal, pericardial and visibly body fluids.

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\*\*Other- Saliva, sputum, wound drainage, urine, feces, etc.

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### Housekeeping

Maintaining our equipment and facilities in a clean and sanitary condition is an important part of our blood borne pathogens standard operating procedure.

All equipment and surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials. Some of the equipment and or supplies which might be contaminated are:

- JAWS, Extrication Tools and Equipment
- O2 mask and tanks
- Blankets
- Backboards
- Straps
- Fire Gear
- Goggles
- First Aid Trauma Kits
- Gloves
- Other miscellaneous equipment

Immediately, or as soon as possible, after contamination, all equipment shall be washed and decontaminated.

All trash containers shall be inspected, cleaned and decontaminated as soon as possible if visibly contaminated.

Avoid handling any contaminated equipment with bare hands, use gloves and if necessary wear goggles.

Contaminated laundry is handled as little as possible and is not sorted or rinsed where it is. Laundry shall be cleaned as soon as possible.

Surfaces soiled with blood or body fluids should be thoroughly washed with soap and water, then disinfected with a 10% solution of household bleach and water (1 pint of bleach to 9 parts water). Personnel cleaning the equipment should wear gloves and wash hands thoroughly when finished.

**\* Fire gear must not be bleached.**