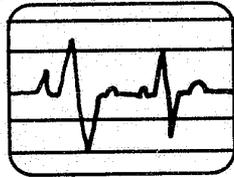




CALIFORNIA DEPARTMENT
OF CORRECTIONS



Office of
**Health Care
Services**

**PROTECTION AGAINST OCCUPATIONAL
EXPOSURE TO HEPATITIS B VIRUS AND
HUMAN IMMUNODEFICIENCY VIRUS (HIV)**

138229

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Introduction

This document is intended to provide you with information to protect yourself from exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV) while performing work-related tasks.

The identified tasks do not comprise an exhaustive list of possible occasions for potential exposure to infected blood and body fluids. These are merely some of the most common ones. In order to afford yourself the most protection, remember these things:

1. You cannot tell by looking at someone if he/she is infected with HBV, HIV, or other communicable diseases.
2. You should always consider that everyone is potentially infectious and exercise universal precautions. These include the use of disposable gloves; non-reverse airways for CPR; covering broken skin (e.g., cuts) with clean, dry bandages; avoiding contact with blood and body fluids; and frequent hand washing.
3. Think before you act. Make sure you have or know where protective gear is available. Put on disposable gloves before you act whenever possible.
4. Read available literature and attend In-Service Training (IST) classes so that you understand about HBV and HIV infection and how to protect yourself.

It is easier to become infected with Hepatitis B than with HIV. Hepatitis is treatable, is rarely but sometimes fatal, and there is a vaccine against HBV. HIV, the virus which causes AIDS, may be harder to "catch", but it is not curable, it remains in your body forever, and usually leads to AIDS. AIDS is a fatal disease.

Read this document and keep it handy as a reference guide.

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)**
(Assessment and Recommendations Based On Federal Guidelines)

AUG 31 1992

1. BACKGROUND

ACQUISITIONS

The United States Departments of Labor, and Health and Human Services have jointly issued guidelines for protecting workers from exposure in the work place to two dangerous viruses: Hepatitis B Virus (HBV); and Human Immunodeficiency Virus (HIV), which has been identified as the cause of AIDS.

The guidelines provide a process for identifying job tasks in which occupational exposure to HBV and/or HIV could occur, and for assessing the likelihood of exposure. In addition, they recommend precautions and protections for avoiding exposure, and tell what actions to take if exposure occurs.

2. "EXPOSURE" (DEFINITION)

The guidelines state that: "The mere presence of, or casual contact with, an infected person cannot be construed as 'exposure' to HBV or HIV."

"Exposure" is defined as "actual skin, mucous membrane, or parenteral contact with blood, body fluids and tissues." ("Parenteral contact" occurs typically through skin that is cut, punctured, scraped, diseased, or otherwise non-intact.)

IMPORTANT NOTE: The guidelines stress that exposure to HBV or HIV seldom results in infection with the virus. The Centers for Disease Control estimates that, even with direct exposure to HIV-infected blood, the odds against becoming infected from a single exposure are greater than 99 to 1. On the other hand, the infection rate is substantially higher for a single exposure to HBV, which is easier to contract than HIV. Estimates put the infection rate for HBV at from 6% to 30% of those exposed. Different from the situation with HIV, however, an effective vaccine has been developed to immunize those in immediate risk of probable infection from HBV.

3. POTENTIAL FOR OCCUPATIONAL EXPOSURE

Only a few work tasks—those that can involve direct contact with blood, body fluids, or tissues—have any potential for exposure to HBV and HIV. For most tasks, the potential for exposure is extremely low, if possible at all.

To rate the exposure potential of all job tasks, the guidelines establish three categories:

- a. Category I includes tasks which require exposure to blood, body fluids, and tissues as an inherent and routine job activity (e.g., a nurse drawing blood or a doctor performing surgery). Persons who perform Category I Tasks are required to use appropriate protective measures while engaged in those tasks.

Recommendations for use of protective measures are detailed in the chart which follows.

- b. Category II includes tasks which may require exposure to blood, body fluids, and tissues as an incidental and occasional job activity (e.g., a peace officer giving First Aid). Persons who perform Category II Tasks shall have ready access to appropriate protective measures for use when needed.

In the chart, about a dozen kinds of activities have been identified as Category II Tasks. These include First Aid and CPR, cleanup of spills of blood and body fluids, intervention in fights and disturbances, and the like, in addition to occasional performance of the two Category I Tasks (urine sample collection and skin checking).

Recommendations for availability and use of protective measures are detailed in the chart.

- c. Category III includes tasks which have no inherent potential for exposure to blood, body fluids, and tissues (e.g., a worker handling implements and utensils, using shared telephone or restroom facilities, making personal contacts such as shaking hands or conducting interviews). Persons who perform Category III Tasks require no special precautions or protective measures for their performance.

4. GENERAL PRINCIPLES OF PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO HBV AND HIV

- a. The only job tasks that have the potential for exposure to HBV and HIV are those that can bring a worker's mucous membranes or broken skin into direct contact with blood, body fluids, or tissues.
- b. In practical terms, blood, semen and vaginal secretions are the body fluids to be concerned about. These fluids contain HBV and HIV in concentrations strong enough to transmit infection. However, the federal guidelines recommend that workers routinely protect themselves against exposure to all body fluids, even those which have not been found to transmit the HBV or HIV infections.
- c. For a fully safe, mistake-free approach to avoiding occupational exposure, all blood and body fluids must be treated as potentially infectious. It is not possible—either medically or legally—to always know who may be infected.
- d. In most instances, potential exposure is foreseeable and therefore avoidable. Each worker should: (1) analyze his or her own job and identify tasks that realistically involve a potential for exposure; (2) know how to protect himself or herself from exposure and; (3) have a plan in mind of how to do so.
- e. As much as possible, workers should avoid direct, unprotected contact of the skin and mucous membranes with blood or body fluids. This can be done by: (1) keeping open cuts or sores covered with clean bandages; (2) using protective measures (e.g., gloves, airways for CPR, disinfectant) if contact with blood or body fluid is foreseen; (3) knowing where protective measures are available if needed, and using them in the event of unforeseen emergencies; (4) avoiding unprotected contact with any sharp objects that could be contaminated with blood or body fluids (e.g., hypodermic needles, knives, razors).
- f. Even if exposure cannot be avoided, the virus can be killed instantly through washing with soap and water or dousing with any one of several common disinfectants which are approved by the Environmental Protection Agency (EPA) for this purpose.

- g. If exposure occurs, any blood or body fluids that spill or splash—on skin, clothing, objects, or environment—must be decontaminated immediately. As detailed in the chart, any of the following disinfectants will kill HIV on contact: (1) hydrogen peroxide; (2) alcohol; (3) household bleach in a solution of 1 part bleach to 10 parts water.
- h. If exposure occurs, or a worker is concerned that exposure may have occurred, this must be reported to the worker's supervisor for medical evaluation, follow-up, and documentation as necessary, as required by Senate Bill 1913 and Proposition 96.

CONCLUSION

The federal guidelines indicate that, in the presence of diseases as dangerous as AIDS and Hepatitis-B, reasonable and responsible people using simple and sensible precautions can live and work without undue fear or worry.

HBV and HIV are unquestionably dangerous, but they can be defended against easily and inactivated instantly. Using the information in this document, the attentive and careful person will be able to anticipate and avoid exposure to these viruses, and function confidently and effectively in personal and professional life.

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY I TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>COLLECTION OF URINE SAMPLES</p>	<ul style="list-style-type: none"> -Highly improbable, but theoretically possible through direct contact (2) with a splash or spill of urine. -HIV has been isolated in a few samples of the urine of infected persons, but in small amounts. -No case of HIV transmission through urine is known, as urine is not an effective transmitter of HIV. -Nonetheless, as with all body fluids, (3) caution is necessary when handling urine samples. 	<ul style="list-style-type: none"> -Always have disposable latex, vinyl, or rubber gloves and approved disinfectant (4) available in your work area as part of your usual work supplies. Be prepared to use them. -Wear gloves throughout the urine sample collection process; have a container of approved disinfectant at hand. -Avoid direct contact with urine. -Avoid contamination of the outside of the bottle. -After removing gloves, routinely wash hands with soap and water. -Dispose of used gloves. 	<ul style="list-style-type: none"> -Immediately wash affected skin areas with soap and water. (5) If eyes are affected, wash them with copious amounts of water. If mouth is affected, rinse with plain water or any available mouthwash. -Decontaminate any affected clothing, objects, furniture, and area with an approved disinfectant. -If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.
<p>SKIN CHECKING INTRAVENOUS NARCOTIC AND DRUG USER</p>	<ul style="list-style-type: none"> -HBV and HIV are present in the blood of infected persons in variable, but significant concentrations. -Very low, but possible through direct contact (2) with infected blood. Probability would increase if a drug user has punctures or sores exuding blood or other fluids. -However, even in the case of needlesticks, less than 1% of health care workers who accidentally injected themselves with HIV-infected blood became infected themselves. 	<ul style="list-style-type: none"> -Always have disposable latex, vinyl, or rubber gloves and approved disinfectant (4) available in your work area as part of your usual work supplies. -Before conducting a skin check, determine visually if the individual has any areas of non-intact skin. -Wear disposable gloves when examining any individual having non-intact skin, or when your own skin is broken. -Change gloves after contact with each person. Do not re-use gloves. -After removing gloves, routinely wash hands with soap and water. -Dispose of used gloves. 	<ul style="list-style-type: none"> -Immediately wash affected skin areas with soap and water. -Decontaminate any affected clothing, objects, furniture, and area with approved disinfectant. -If concerned that exposure has occurred, report the event to the supervisor for medical evaluation and followup.

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>PERSONAL CONTACT INTERVENTION TO MAINTAIN INSTITUTIONAL ORDER AND SECURITY E.G., BREAK UP FIGHTS; SUBDUE BELLIGERENT INDIVIDUALS; APPLY RESTRAINTS</p>	<p>-Risk of exposure to HBV or HIV ranges from "low" in the case of direct, brief skin or mucous membrane contact (2) with blood, to "theoretically possible, but highly improbable" for direct contact with other body fluids that would normally be encountered in the performance of this task (e.g., sweat or saliva).</p> <p>-HIV has been isolated in several body fluids. (3) but there is evidence of transmission only through blood, semen, vaginal secretions, and possibly breast milk.</p> <p>-There is no case of infection attributable to contact with any other body fluid that would normally be encountered in performance of this task.</p> <p>-Less than 1% of health care workers who have experienced direct contact with infected blood have become infected themselves.</p> <p>-However, risk of exposure increases with:</p> <ul style="list-style-type: none"> ◦ the amount of body fluid with which there is contact (the greater the volume of blood, the higher the risk); and ◦ the duration of the contact (the longer blood is in contact with skin or mucous membranes, the higher the risk). <p>-Nonetheless, with all body fluids, caution is necessary when contact is possible.</p>	<p>-Always know where disposable gloves and EPA approved disinfectant (4) are kept at the work place. Be prepared to use them.</p> <p>-As much as possible, avoid direct contact with blood and body fluids, especially splashes of fluids to the eyes and mouth, and onto open wounds.</p> <p>-Keep any cuts and open wounds covered with clean bandages.</p> <p>-If time permits, put on disposable gloves before intervening in a situation where blood or other body fluids are in evidence. NOTE: However, if it is not possible to obtain and put on gloves, intervene as existing policy and procedure dictate, and then follow guidelines under "What To Do If Exposure Occurs," on this page.</p>	<p>-Immediately wash affected skin areas with soap and water. (5)</p> <p>-If the eyes are affected, wash then with copious amounts of water. If the mouth is affected, rinse with plain water or any available mouthwash.</p> <p>-Decontaminate affected clothing, objects, furniture, and area with an approved disinfectant.</p> <p>-If bitten, as with any human bite wound, seek medical attention immediately. Encourage "backbleeding" by applying pressure and "milking the wound," as with a snakebite.</p> <p>-If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>FIRST AID FOR SUDDEN ILLNESS, OR INJURY FROM WORK ACCIDENTS, ATHLETICS, FIGHTS (NOT REQUIRING MOUTH-TO-MOUTH OR CARDIOPULMONARY RESUSCITATION)</p>	<p>-Risk of exposure to HBV or HIV ranges from "low" in the case of direct, brief skin or mucous membrane contact (2) with blood, to "theoretically possible, but highly improbable" for direct contact with other body fluids that would normally be encountered in the performance of this task.</p> <p>-HIV has been isolated in several body fluids, (3) but there is evidence of transmission only through blood, semen, vaginal secretions, and possibly breast milk.</p> <p>-There is no case of infection attributable to contact with any other body fluid that would normally be encountered in performance of this task.</p> <p>-Less than 1% of health care workers who have experienced direct contact with infected blood have become infected themselves.</p> <p>-However, risk of exposure increases with:</p> <ul style="list-style-type: none"> ° the amount of body fluid with which there is contact (the greater the volume of blood, the higher the risk); ° the duration of the contact (the longer blood is in contact with skin or mucous membranes, the higher the risk). <p>-Nonetheless, with all body fluids, caution is necessary when contact is possible.</p>	<p>-Always know where disposable gloves and EPA approved disinfectant (4) are kept at the work place. Be prepared to use them.</p> <p>-As much as possible, avoid direct contact with blood and body fluids, especially splashes of fluids to the eyes and mouth, and onto open wounds.</p> <p>-Keep all cuts and open wounds covered with clean bandages.</p> <p>-In the event of bleeding, or the presence of other body fluids, put on disposable gloves before rendering First Aid. NOTE: If, however, you do not have gloves at hand or accessible, render First Aid as existing policies and procedures dictate, and then follow guidelines under "What To Do If Exposure Occurs," on this page.</p> <p>-When work assignments take employees away from quick access to supplies of gloves and disinfectant, (e.g., work crew supervision; transportation; supervision of recreation) at least one staff member must always have gloves and disinfectant at hand, (either in a First Aid kit or on his/her person) to deal with bleeding and spills of blood or body fluids.</p>	<p>-Immediately wash affected skin areas with soap and water. (5) If the eyes are affected, wash them with copious amounts of water. If the mouth is affected, rinse with plain water or any available mouthwash.</p> <p>-Decontaminate affected clothing, objects, furniture, and area with approved disinfectant.</p> <p>-If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>FIRST AID REQUIRING MOUTH-TO-MOUTH RESUSCITATION OR CARDIOPULMONARY RESUSCITATION (CPR) (6)</p>	<p>-Highly improbable, although theoretically possible through direct contact (2) with saliva, if saliva contains blood.</p> <p>-HIV has been isolated in the saliva of infected persons, but in microscopic amounts and weak concentrations.</p> <p>-No case of HIV transmission through saliva is known, as saliva is not an effective transmitter of HIV.</p> <p>-Nonetheless, as with all body fluids, (3) caution is necessary when contact with saliva is possible.</p>	<p>-Always know where protective airways, disposable gloves, and approved disinfectant (4) are kept at the work place and be prepared to use them.</p> <p>-When mouth-to-mouth resuscitation or CPR must be administered, put on gloves before, and use a protective airway during resuscitation. NOTE: If, however, you do not have gloves and an airway at hand or immediately accessible, administer mouth-to-mouth resuscitation or CPR without them and then follow the guidelines under "What To Do If Exposure Occurs" on this page.</p> <p>-When work assignments take employees away from quick access to work place supplies of airways, disposable gloves, and disinfectant, (e.g., work crew, supervision of recreation) at least one staff member must always have an airway, gloves, and disinfectant at hand (either in a First Aid kit or on his/her person) to administer mouth-to-mouth resuscitation or CPR.</p>	<p>-After using an airway to administer mouth-to-mouth resuscitation or CPR, immediately put the device into a plastic bag, seal it with tape, and turn it over to the work location supervisor for delivery to medical staff for full sterilization before reuse, or disposal as appropriate.</p> <p>-In the event of direct skin contact with saliva, immediately wash affected skin areas with soap and water. (5)</p> <p>-If direct mucous membrane contact with saliva has occurred, rinse the mouth with plain water or any available mouthwash. Eyes should be washed with copious amounts of water.</p> <p>-Decontaminate affected clothing, objects, furniture, and area with approved disinfectant.</p> <p>-If concerned that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>
<p>RESPONSE TO CERTAIN RISK BEHAVIORS OR ACTIONS OF INDIVIDUALS IN CUSTODY:</p> <p>-SHARING OF PERSONAL ITEMS e.g., TOOTHBRUSH, RAZORS, TOWELS FOOD, UTENSILS</p> <p>-TATTOOING WITH SHARED IMPLEMENT</p> <p>-SEXUAL ACTIVITY HAVING THE POTENTIAL FOR EXCHANGE OF BODY FLUIDS</p>	<p>-The risk of exposure is ordinarily low.</p> <p>-However, sharing of toothbrushes and razors is of special concern because they have much greater than usual potential for causing direct contact (2) of a person with the infected blood of another.</p> <p>-Tattooing and sexual activity are of extreme concern because the probability of exposure is very high. These are among the highest risk activities for transmission of HBV and HIV.</p>	<p>-Always know where disposable gloves and approved disinfectant (4) are kept at the work place. Be prepared to use them.</p> <p>-Deter inmates from the described behaviors through both education and prevention efforts.</p> <p>-Keep all cuts and open wounds covered with clean bandages.</p> <p>-If time permits, put on disposable gloves before intervening in a situation where blood or other body fluids are in evidence. NOTE: However, if it is not possible to obtain and put on gloves, intervene as existing policy and procedure dictate and then follow guidelines under "What To Do If Exposure Occurs," on this page.</p>	<p>-If sharing of toothbrushes, razors, or tattooing implements is encountered, decontaminate (5) the items immediately. Do not come into direct contact with any blood or body fluid.</p> <p>-If sexual activity is encountered, or becomes known after the fact, refer all participants to the medical staff for evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>DEALING WITH AGGRESSIVE OR ASSAULTIVE BEHAVIORS: E.G., SPITTING OR BITING</p>	<p>-Highly improbable, although theoretically possible through direct contact (2) with saliva, if saliva contains blood.</p> <p>-HIV has been isolated in the saliva of infected persons, but in small amounts.</p> <p>-Saliva is not an effective transmitter of HIV.</p> <p>-No case of HIV transmission through saliva is known, even in the case of biting when skin is broken by the bite, and the biter has blood in his/her mouth (e.g., from bleeding gums).</p> <p>-Nonetheless, as with all body fluids, (3) caution is necessary when contact with saliva is possible.</p>	<p>-Always know where approved disinfectant (4) is kept at the work place. Be prepared to use it.</p> <p>-If performance of duties, or defense of self or others requires contact with an aggressive/assaultive person, try to avoid contact with saliva and be careful to avoid being bitten.</p>	<p>-Immediately wash affected skin areas with soap and water. (5)</p> <p>-If the eyes are affected, wash them with copious amounts of water. If mouth is affected, rinse with plain water or any available mouthwash.</p> <p>-Decontaminate affected clothing, objects, furniture, and area with approved disinfectant.</p> <p>-If bitten, as with any human bite wound, seek medical attention immediately. Encourage "backbleeding" by applying pressure and "milking the wound," as with a snakebite.</p> <p>-If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>
<p>SEARCHES OF PERSONS OR PREMISES, AS REQUIRED BY DEPARTMENTAL POLICY AND PROCEDURES</p>	<p>-Risk of exposure to HBV or HIV is very low, but possible from:</p> <p> • Puncture with needles, or cuts with sharp instruments contaminated with infected blood.</p> <p> • Direct contact (2) with infected blood or other body fluids if person searched has open sores or wounds.</p> <p>-HIV has been isolated in several body fluids, (3) but there is evidence of transmission only through blood, semen, vaginal secretions, and possibly breast milk.</p> <p>-Less than 1% of health care workers who have accidentally stuck themselves with needles contaminated with HIV infected blood have become infected themselves.</p> <p>-Nonetheless, with all body fluids, caution is necessary when contact is possible.</p>	<p>-Always know where disposable gloves and approved disinfectant (4) are kept at the work place. Be prepared to use both.</p> <p>-If it is necessary to search manually, always wear protective gloves and feel very slowly and carefully.</p> <p>-Whenever it is possible and safe to do so, ask persons to empty their own pockets.</p> <p>-Whenever possible, use long-handled mirrors to search hidden areas.</p> <p>-Whenever possible, use implements (e.g., stick or probe) to search in and under furniture.</p> <p>-Use puncture-proof containers to store sharp instruments, and clearly marked plastic bags to store other possibly contaminated items.</p> <p>-Use tape when sealing packaged contraband or evidence.</p> <p>-If departmental policies and procedures would require that a search be conducted in the field, away from the work place, always carry gloves and a container of approved disinfectant.</p>	<p>-Immediately wash affected skin areas with soap and water.</p> <p>-Decontaminate affected clothing, objects, furniture or area with approved disinfectant.</p> <p>-If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
COLLECTION OF URINE SAMPLES	<ul style="list-style-type: none"> -Highly improbable, but theoretically possible through direct contact (2) with a splash or spill of urine. -HIV has been isolated in a few samples of the urine of infected persons, but in small amounts. -No case of HIV transmission through urine is known, as urine is not an effective transmitter of HIV. -Nonetheless, as with all body fluids, (3) caution is necessary when handling urine samples. 	<ul style="list-style-type: none"> -Always know where disposable gloves and approved disinfectant (4) are kept at the work place. Be prepared to use them. -Before urine sample collection, obtain gloves and disinfectant. -Wear gloves throughout the urine sample collection process; have a container of approved disinfectant at hand. -Avoid contamination of the outside of the bottle. -After removing gloves, routinely wash hands with soap and water. -Dispose of used gloves. 	<ul style="list-style-type: none"> -Immediately wash affected skin areas with soap and water. If eyes are affected, wash with copious amounts of water. If mouth is affected, rinse with plain water or any available mouthwash. -Decontaminate any affected clothing, objects, furniture and area with an approved disinfectant. -If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.
SKIN CHECKING INTRAVENOUS NARCOTIC AND DRUG USERS	<ul style="list-style-type: none"> -HBV and HIV are present in the blood of infected persons in variable, but significant concentrations. -Very low, but possible through direct contact (2) with infected blood. Probability would increase if a drug user has punctures or sores exuding blood or other fluids. -However, even in the case of needlesticks, less than 1% of health care workers who accidentally injected themselves with HIV-infected blood, became infected themselves. 	<ul style="list-style-type: none"> -Always know where disposable gloves and approved disinfectant (4) are kept at the workplace. Be prepared to use them. -Before performing a skin check, obtain gloves and disinfectant. -Before conducting a skin check, determine visually if the individual has any areas of non-intact skin. -Wear gloves when examining any individual having non-intact skin, or when your own skin is broken. -Change gloves after contact with each individual. Do not re-use gloves. -After removing gloves, routinely wash hands with soap and water. -Dispose of used gloves. 	<ul style="list-style-type: none"> -Immediately wash affected skin areas with soap and water. -Decontaminate any affected clothing, objects, furniture, and area with an approved disinfectant. -If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>CLEANUP OF SPILLS OF BLOOD OR BODY FLUIDS; DISPOSAL OF ITEMS CONTAMINATED WITH BLOOD OR BODY FLUIDS</p>	<p>-Risk of exposure to HBV or HIV ranges from "low" in the case of direct, brief skin or mucous membrane contact (2) with blood, to "theoretically possible, but highly improbable" for direct contact with other body fluids that would normally be encountered in the performance of this task.</p> <p>-HIV has been isolated in several body fluids, (3) but there is evidence of transmission only through blood, semen, vaginal secretions, and possibly breast milk.</p> <p>-There is no case of infection attributable to contact with any other body fluid that would normally be encountered in performance of this task.</p> <p>-Less than 1% of health care workers who have experienced direct contact with infected blood have become infected themselves.</p> <p>-However, risk of exposure increases with:</p> <ul style="list-style-type: none"> ° the amount of body fluid with which there is contact (the greater the volume of blood, the higher the risk); and ° the duration of the contact (the longer blood is in contact with skin or mucous membranes, the higher the risk). <p>-Nonetheless, with all body fluids, (3) caution is necessary when contact is possible.</p>	<p>-Always know where disposable gloves and approved disinfectant (4) are kept at the work place. Be prepared to use them.</p> <p>-Never begin to clean up any spill or splash or body fluid without first:</p> <ul style="list-style-type: none"> -putting on gloves; and -decontaminating the spill or splash with approved disinfectant. <p>-Decontaminate the entire spill or splash of blood or body fluids. Cover area with paper towels and soak the towels with approved disinfectant. Let the towels sit for at least 30-60 seconds. Use cardboard or other mechanical means to pick up the soiled towels and place them in an impervious contaminated waste bag for disposal. Wipe the area dry with disposable towels and make sure that all of the contaminated material is removed.</p> <p>-For a very large spill, first mop up the fluid. Flood the area with approved disinfectant. Let the disinfectant sit for 30-60 seconds. Using a second mop, mop the area clean. Place the mop heads in clearly identified impervious bags for decontamination or disposal.</p> <p>-If a blood spill is so extensive that it cannot be decontaminated or cleaned up without the need to step in it, disposable shoe coverings should be used.</p> <p>-Place all possible contaminated clothing, bedding, and other items in clearly identified impervious plastic bags for decontamination, laundering, or disposal. Seal bags with tape; do not use staples.</p>	<p>-If direct contact with the skin or mucous membranes occurs during cleanup of a spill or splash, immediately wash affected skin areas with soap and water. If eyes are affected, wash them with copious amounts of water. If mouth is affected, rinse with plain water or any available mouthwash.</p> <p>-If there is concern that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY II TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>LAUNDERING INSTITUTIONAL CLOTHING AND BEDDING</p>	<p>-Risk of exposure to HBV or HIV ranges from "low" in the case of direct, brief skin or mucous membrane contact (2) with blood, to "theoretically possible, but highly improbable" for direct contact with other body fluids that would normally be encountered in the performance of this task.</p> <p>-HIV has been isolated in several body fluids, (3) but there is evidence of transmission only through blood, semen, vaginal secretions, and possibly breast milk.</p> <p>-There is no case of infection attributable to contact with any other body fluid that would normally be encountered in performance of this task.</p> <p>-Less than 1% of health care workers who have experienced direct contact with infected blood have become infected themselves.</p> <p>-However, risk of exposure increases with:</p> <ul style="list-style-type: none"> ° the amount of body fluid with which there is contact (the greater the volume of blood, the higher the risk); and ° the duration of the contact (the longer blood is in contact with skin or mucous membranes, the higher the risk). <p>-Nonetheless, with all body fluids, (3) caution is necessary when contact is possible.</p>	<p>-Laundry workers are to wear disposable gloves and gowns or disposable plastic aprons whenever handling and sorting unwashed laundry.</p> <p>-For occasional or emergency contact with unwashed laundry, gloves should be worn if clothing or bedding is soiled with blood or semen.</p> <p>-Place grossly contaminated laundry in a water soluble bag. Place that bag in a contaminated linen bag before sending for laundry.</p>	<p>-Immediately wash affected skin areas with soap and water. Decontaminate skin with an approved disinfectant.</p> <p>-If concerned that exposure has occurred, report the event to the supervisor for medical evaluation and followup.</p>

**PROTECTION AGAINST OCCUPATIONAL EXPOSURE TO
HEPATITIS B VIRUS (HBV) AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)
CATEGORY III TASKS**

JOB TASK OR WORK RELATED EVENT	PROBABILITY OF EXPOSURE (1)	HOW TO AVOID EXPOSURE	WHAT TO DO IF EXPOSURE OCCURS
<p>-All tasks, activities, and events not identified as Category I and Category II Tasks are Category III Tasks. These involve "no exposure to blood, body fluids, or tissues (although situations can be imagined or hypothesized under which anyone, anywhere, might encounter potential exposure to body fluids)." (U.S. Departments of Labor, Health and Human Services)</p> <p>-Included under Category III Tasks are the following activities about which staff asked specifically:</p> <ul style="list-style-type: none"> -Handshaking -Fingerprinting -Interviewing -Entering unsanitary environments -Collecting personal belongings -Using common bathroom facilities -Doing routine maintenance or "housekeeping" chores <p>These tasks or activities, and many more like them, involve no inherent risk of exposure to HBV or HIV, and require no special precautions.</p> <p>-It is possible, of course, that any activity might carry an unusual risk of exposure to HBV or HIV (e.g., shaking hands with someone bleeding profusely, or fingerprinting a person with open sores on the hands).</p> <p>-When faced with situations of this kind, workers must combine knowledge of sensible precautions with common sense to anticipate and avoid any unusual risk of potential exposure.</p>	<p align="center">None</p>	<p align="center">Not applicable</p>	<p align="center">Not applicable</p>

REFERENCES

- (1) **EXPOSURE** to HBV and HIV is defined as: "Actual skin, mucous membrane, or parenteral (e.g., needlestick or cut) contact with blood, body fluids, and tissues." "Both HBV and HIV appear to be incapable of penetrating intact skin, but infection may result from infectious fluids coming into contact with mucous membranes or open wounds (including inapparent lesions on the skin)." Rashes, eczema, and skin conditions, in addition to punctures and cuts, can make the skin "non-intact". (U.S. Departments of Labor; Health and Human Services)
- (2) **DIRECT CONTACT:** "The cumulative epidemiologic data indicate that transmission of HBV and HIV requires direct, intimate contact with or parenteral (e.g., needlestick or cut) inoculation of blood and blood products, semen, or tissues. The mere presence of or a casual contact with an infected person cannot be construed as "exposure to blood and tissues. Workers occupationally exposed to blood, body fluids, or tissues can be protected from the recognized risks of HBV and HIV infection by imposing barriers in the form of engineering controls, work practices, and protective equipment that are readily available, commonly used, and minimally intrusive." (U.S. Departments of Labor; Health and Human Services)
- (3) **ALL BODY FLUIDS:** "HIV has been isolated from blood, semen, vaginal secretions, saliva, tears, breast milk, cerebrospinal (brain and spinal cord) fluid, amniotic fluid, and urine and is likely to be isolated from other body fluids, secretions, and excretions." (Centers for Disease Control) "Although other fluids (besides blood, semen, and vaginal secretions) have not been shown to transmit infection, all body fluids and tissues should be regarded as potentially contaminated by HBV or HIV, and treated as if they were infectious." (U.S. Departments of Labor; Health and Human Services)
- (4) **APPROVED DISINFECTANT:** These include: (a) Hydrogen Peroxide (kept in opaque, well-sealed bottles that do not allow exposure to light and air); (b) Alcohol in a 70% solution; (c) Household Bleach in a solution of 1 part bleach to 10 parts water, freshly mixed daily; (d) a variety of commercially available EPA approved disinfectants and sterilants (e.g., Staphene).
- (5) **DECONTAMINATE:** Apply EPA approved disinfectant to clothing, object, or surface on which blood or other body fluids have been spilled or splashed.
- (6) **CARDIOPULMONARY RESUSCITATION (CPR):** "Criminal justice personnel are also concerned about infection with HIV through administration of CPR. Agencies should respond to these concerns by stressing the research showing the extreme unlikelihood of HIV transmission through saliva. At the same time, agencies should make protective masks or airways available to officers and provide training for their proper use. Devices with valves to prevent the patient's saliva from entering the care giver's mouth are preferable."

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