



**Cal/OSHA, DOT HAZMAT, EEOC,
EPA, HAZWOPER, HIPAA, IATA,
IMDG, TDG, MSHA, OSHA, and
Canada OHS Regulations and
Safety Online Training**

Since 2008

This document is provided as a training aid
and may not reflect current laws and regulations.

Be sure and consult with the appropriate governing agencies
or publication providers listed in the "Resources" section of our website.

www.ComplianceTrainingOnline.com



[Facebook](#)



[LinkedIn](#)



[Twitter](#)



[Website](#)



Exposure Control Plan for Bloodborne Pathogens



Department of Industrial Relations
Cal/OSHA Consultation Service
Education Unit

Exposure Control Plan for Bloodborne Pathogens Supplement



This is a supplement to the Cal/OSHA booklet entitled "Exposure Control Plan for Bloodborne Pathogens". This supplement, its companion booklet entitled "A Best Practices Approach for Reducing Bloodborne Pathogens Exposure", and the bloodborne pathogens standard should be used to develop your Exposure Control Plan.

Please follow these instructions at the following pages in the Exposure Control Plan for Bloodborne Pathogens booklet:

◆Page 2, Exposure Determinations

It is recommended that you identify in the spaces provided in the form the name of the person or group that is responsible for making exposure determinations.

◆Pages 5-6, Schedules and Methods of Implementation

To properly develop this aspect of your Exposure Control Plan, you must first determine which elements of subsections 5193(d), (f), (g) and (h) apply to your workplace. You can do this by reviewing these subsections in the bloodborne pathogens standard and by reviewing the information and forms on pages 28-75 of the companion Cal/OSHA booklet "A Best Practices Approach for Reducing Bloodborne Pathogens Exposure".

NOTE: Some elements of the above listed subsections are applicable primarily to healthcare environments and laboratories, e.g., (d)(3)(A)--Needleless Systems, Needle devices, and non-Needle Sharps. Other elements, such as (d)(3)(I)-Hygiene, and subsection (f)--Hepatitis B Vaccination and Bloodborne Pathogen Post-Exposure Evaluation and Follow-up, apply equally to virtually all workplaces subject to the bloodborne pathogens standard.

Once you have determined which subsections are applicable to your workplace, you should determine and describe in your Exposure Control Plan how you will comply with the requirement. One example of how this can be done is to identify the person(s) or group(s) responsible for implementing these requirements, and defining their responsibilities, e.g., gathering information, making decisions, and identifying sources from which equipment will be purchased.

◆Page 7, Provisions for the Initial Reporting of Exposure Incidents

Remember that an exposure incident is an emergency to be responded to as soon as possible.

The purpose of the form provided on this page is to provide and gather information related to exposure incidents. However, the form mentions the term "first aid incident", which is any incident in which an employee provides first aid and in which blood or OPIM is involved. A first aid incident may or may not be an exposure incident, depending on whether the employee was actually exposed to blood or OPIM while providing first aid.

Normally, employers need not record a first aid incident if it is not an exposure incident. However, if an employer has opted not to provide pre-exposure Hepatitis B vaccinations to designated first aid providers, as allowed by the exception to subsection (f)(1)(A), then the employer must record all first aid incidents, whether or not they are exposure incidents, and may use this form to do so.

◆Page 15, Sharps Injury Log

If you marked "Yes" in the box titled "If No" located in the middle of the Sharps Injury Log, then you must record the employees opinion on **how** a protective mechanism could have prevented the injury.

The question at the eighth red bullet of Item No. 4 in the Sharps Injury Log asks whether the employee believes that "...any controls (e.g., engineering controls, administrative or work practice) could have prevented the injury." The question to be asked the employee is whether any control measure **other than** the protective mechanism referred to in the "If No" box could have prevented the injury.

The background of the slide is a grayscale electron micrograph of biological tissue. It shows various cellular structures, including large, roughly spherical organelles with internal membranes and smaller, more uniform particles. Several of these particles and larger structures contain bright red spots or patches, which likely represent specific components stained for visualization, such as viral particles or specific organelles. The overall texture is granular and detailed, typical of high-magnification microscopy.

**Exposure
Control Plan
for Bloodborne
Pathogens**



Publishing Information

The *Exposure Control Plan for Bloodborne Pathogens* was developed by the Education Unit, Cal/OSHA Consultation Service, California Department of Industrial Relations. The document was prepared for publication by the staff of CDE Press, California Department of Education. It was distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

Published 2001 by the California Department of Industrial Relations

This booklet is not meant to be a substitute for or a legal interpretation of the occupational safety and health standards. Please see *California Code of Regulations, Title 8*, or the *Labor Code* for detailed and exact information, specifications, and exceptions.

Photo Credits

Cal/OSHA gratefully acknowledges Richard Munn, M.D., Department of Pathology, University of California Davis Medical School, for the slides used as photographs in this booklet.

Contents



Policy and Elements of the Plan	1
Exposure Determinations	2
Schedules and Methods of Implementation	5
Methods of Compliance	5
Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up	5
Communication of Hazards to Employees	6
Recordkeeping	6
Provisions for the Initial Reporting of Exposure Incidents	7
Hepatitis B Vaccination Series for Unvaccinated Employees	8
Post-Exposure Evaluation and Follow-up	9
Effective Procedures	11
Evaluation of Circumstances Surrounding Exposure Incidents	12
Work Practice Controls–Exception to Prohibited Practices	13
Gathering Sharps Injury Log Information	14
Making Periodic Determinations of the Frequency of the Use of Sharps Involved in Exposure Incidents	16
Identifying and Selecting Appropriate and Currently Available Engineering Control Devices	17
Engineering Controls–Exception 2	21
Actively Involving Employees in the Review and Update of the Exposure Control Plan	22
We Want to Hear From You	23
Acknowledgments	24



About This Booklet



This booklet was developed to help employers and employees design an effective exposure control plan in accord with *California Code of Regulations, Title 8, Section 5193*. Cal/OSHA acknowledges that the needs and resources of organizations with employees who have occupational exposure to blood or other potentially infectious materials (OPIM) vary widely. Therefore, a basic bloodborne pathogens exposure control plan has been designed to provide streamlined implementation procedures. The plan promotes the use of safer engineering controls and more effective work practices in hospitals, nursing homes, medical and dental offices, and other workplace settings where occupational exposure to blood or OPIM is likely to occur.

The exposure control plan consists of the following sections:

- “Policy and Elements of the Plan” establishes a policy statement and identifies the required elements.
- “Exposure Determinations” defines important terms and provides worksheets to list job classifications, tasks, or procedures in which employees may have occupational exposures.
- “Schedules and Methods of Implementation” contains forms to describe various procedures that may be required by 8 CCR 5193.
- “Provisions for the Initial Reporting of Exposure Incidents” provides a structure for reporting exposure incidents.
- “Hepatitis B Vaccination Series for Unvaccinated Employees” establishes a policy statement and provides a form to describe the relevant procedure.
- “Post-Exposure Evaluation and Follow-up” contains a worksheet to document the provision of post-exposure evaluation and follow-up to exposed employees.
- “Effective Procedures” provides worksheets to document various procedures, including evaluating the circumstances surrounding exposure incidents and gathering information for the Sharps Injury Log.

For More Help

A companion booklet, *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*, is also available from Cal/OSHA. It provides a practical, step-by-step approach to addressing occupational bloodborne pathogens exposure. This booklet can help with:

- Identifying and Selecting Appropriate and Effective Engineering Controls
- Assessing Engineering Controls and Work Practices
- Handling Regulated Wastes
- Cleaning and Decontaminating the Worksite
- Providing Post-Exposure Evaluation and Follow-up
- Training Employees
- Labeling
- Recordkeeping
- Obtaining Additional Information and Resources

Policy and Elements of the Plan



We provide a safe and healthful workplace for employees. Our organization’s policy is to establish, implement, and maintain an effective exposure control plan as required by the bloodborne pathogens regulation in *California Code of Regulations, Title 8 (8 CCR), Section 5193*. This written plan is designed to prevent or minimize employees’ occupational exposure to blood and other potentially infectious materials (OPIM). The plan is consistent with the requirements of the Cal/OSHA Injury and Illness Prevention Program (8 CCR 3203).

Our exposure control plan is made available upon request, for examination and copying, to our employees, the Chief of Cal/OSHA, and NIOSH (or their respective designees) in accord with 8 CCR 3204, “Access to Employee Exposure and Medical Records.”

Our organization’s written exposure control plan contains at least the following elements:

- Exposure determinations
- The schedule and method of implementation for each of the applicable subsections of the bloodborne pathogens regulation (8 CCR 5193), which include:
 - Methods of compliance
 - Hepatitis B vaccination and post-exposure evaluation and follow-up

- Communication of hazards to employees
- Recordkeeping
- Provisions for the initial reporting of exposure incidents
- Hepatitis B vaccination series for unvaccinated employees
- Effective procedures for:
 - Evaluating the circumstances surrounding exposure incidents
 - Work practice controls—exception to prohibited practices
 - Gathering sharps injury log information
 - Making periodic determinations of the frequency of use and the types and the brands of sharps involved in exposure incidents
 - Identifying and selecting appropriate and currently available engineering control devices
 - Engineering controls—exception 2 (Patient Safety Determinations)
 - Actively involving employees in the review and update of the exposure control plan for the procedures they perform

The information-gathering and documentation procedures serve as a basis for making decisions about the use of needleless systems and sharps with engineered sharps injury protection.





Exposure Determinations



Employees in our organization have occupational exposure to bloodborne pathogens. *Occupational exposure* means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious material (OPIM) that may result from the performance of an employee's duties. *Parenteral contact* means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions. OPIM includes various contaminated human body fluids, unfixed human tissues or organs (other than skin), and other materials known or reasonably likely to be infected with human immunodeficiency virus (HIV), hepatitis B virus (HBV), or hepatitis C virus (HCV) through cells, tissues, blood, organs, culture mediums, or solutions. See *A Best Practices Approach for Reducing Bloodborne Pathogens*

Exposure for a more detailed definition of OPIM.

Our policy is to conduct exposure determinations throughout the facility without regard to the use of personal protective equipment (PPE). We have committees, workgroups, lead person(s), or other individuals who conduct, evaluate, and periodically review exposure determinations. This process involves identifying all the job classifications, tasks, or procedures in which our employees may have occupational exposure to blood or OPIM. Our approach is to consider (check one ✓):

- all our job classifications at once
- selected job classifications on a staggered schedule



Other methods or procedures we use to conduct exposure determinations are specified below:

 Make copies as needed



Job Classifications in Which **All** Employees Have Occupational Exposure

All individuals in each job classification listed below have occupational exposure.

- | | | |
|----------|-----------|-----------|
| 1. _____ | 6. _____ | 11. _____ |
| 2. _____ | 7. _____ | 12. _____ |
| 3. _____ | 8. _____ | 13. _____ |
| 4. _____ | 9. _____ | 14. _____ |
| 5. _____ | 10. _____ | 15. _____ |

Examples of Job Classifications in Which All Employees Have Occupational Exposure

Examples include Anesthesia Technicians, Anesthesiologists, Central Processing Unit (CPU) Staff, Certified Nursing Assistants, Dental Assistants, Dental Hygienists, Dentists, EMT Personnel, Evidence Technicians, Firefighters, I.V. Therapists, Labor and Delivery Technicians, Laboratory Staff, Medical Technologists, Licensed Vocational Nurses, Lifeguards, Nurse Practitioners, Nursing Assistants, Pathologists, Pathology Assistants, Perfusionists, Phlebotomists, Physicians, Police Officers, Registered Nurses, Surgeons, and Surgical Technicians.



Perfusionists



Dental Assistants, Dental Hygienists, Dentists



Surgeons



Laboratory Staff



EMT Personnel



Central Processing Unit (CPU) Staff



Medical Technologists



Nurses



Phlebotomists



Job Classifications in Which **Some** Employees Have Occupational Exposure

The only individuals who have occupational exposure in the job classifications listed below *are those who perform the tasks/procedures noted.*

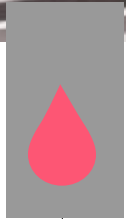
Job Classification	Tasks/Procedures in These Jobs That Have Occupational Exposure
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Examples may include:

Job Classification	Tasks/Procedures in These Jobs That Have Occupational Exposure
Dietary Employees	Handling food contaminated with vomitis, blood, or OPIM
Field Service Technicians	Doing maintenance/repairs on medical equipment contaminated with blood or OPIM
Housekeepers	Handling regulated waste, cleaning up spills or equipment
Medical Assistants	Administering injections, cleaning rooms, disinfecting equipment
Patient Escort/Transport Personnel	Transporting patients, responding to incidents
Physical Therapists	Conducting exams, providing patient therapy
Plant Operations Engineers	Doing maintenance/repairs on systems or equipment contaminated with blood, OPIM, or containing used sharps
Playground Supervisors	Providing first aid
School Bus Drivers	Providing first aid
Schoolteachers	Providing first aid
Security Services	Responding to incidents or emergencies
Technicians – EEG/EKG Mammography/Nuclear Medicine Radioimaging/Ultrasound	Patient contact activities: exams, taking vital signs Attaching/handling/cleaning diagnostic equipment Attaching/handling/cleaning diagnostic equipment Attaching/handling/cleaning diagnostic equipment

Make copies as needed

Schedules and Methods of Implementation



For additional assistance in addressing the requirements of subsections (d) through (h) of 8 CCR 5193, obtain a copy of *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*.

Our organization has developed a schedule and methods of implementation for the applicable subsections (d) through (h) of 8 CCR 5193. We have determined which subsections are applicable to our organization and documented the pertinent information as follows:



Subsection
(d) Methods of Compliance

Applicable (✓)
yes no (Specify reasons below)

Schedule and methods of implementation:

Comments: _____

This subsection *does not* apply for the following reasons:



Subsection
(f) Hepatitis B Vaccination, Post-Exposure Evaluation, and Follow-up

Applicable (✓)
yes no (Specify reasons below)

Schedule and methods of implementation:

Comments: _____

This subsection *does not* apply for the following reasons:



Subsection (g) Communication of Hazards to Employees	Applicable (✓) yes <input type="checkbox"/> no <input type="checkbox"/> (Specify reasons below)
---	---

Schedule and methods of implementation:

Comments: _____

This subsection *does not* apply for the following reasons:



Subsection (h) Recordkeeping	Applicable (✓) yes <input type="checkbox"/> no <input type="checkbox"/> (Specify reasons below)
---	---

Schedule and methods of implementation:

Location of records (e.g., sharps injury log, employees' medical records, training records):

Comments: _____

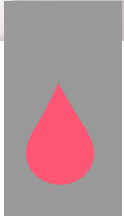
This subsection *does not* apply for the following reasons:

 Make copies as needed

Provisions for the Initial Reporting of Exposure Incidents



Our organization reports all exposure incidents as soon as possible (and in no case later than the end of the work shift during which they occurred) regardless of whether first aid was rendered. An *exposure incident* means specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties. *Parenteral* means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions. All employees (including designated first-aid providers who provide first aid regularly and those who render first aid only as a collateral duty) receive training about our policy.



The following individual(s) are designated by our organization to receive reports of exposure incidents:

Contact person(s): _____ Telephone/pager number: _____

_____ Telephone/pager number: _____

After-hours contact person: _____ Telephone/pager number: _____

The exposure incident report includes at least the following:

- ◆ The names of all employees involved in the exposure incident (including all first-aid providers who have rendered assistance regardless of whether personal protective equipment was used).
- ◆ A description of the exposure or first-aid incident, including:
 - The time and date
 - A determination of whether an exposure incident occurred. This determination is necessary to ensure that the proper post-exposure evaluation is conducted and prophylaxis and follow-up are made available immediately if an exposure incident has occurred.

Person receiving the report: _____ Telephone/pager number: _____

The exposure incident report is recorded on a list of first-aid incidents (when the rendering of first aid is involved). If the exposure incident involves a sharp, the Sharps Injury Log (see page 15) will also be completed. The exposure incident report is provided to the Chief of Cal/OSHA upon request.

Note: The following forms are separate documents with their own requirements: (1) Provisions for the Initial Reporting of Exposure Incidents, (2) the Sharps Injury Log, (3) the Doctor's First Report of Injury and Illness (5021), and (4) the Federal OSHA Log 200.



Make copies as needed

Post-Exposure Evaluation and Follow-up



For additional assistance with post-exposure evaluation and follow-up, obtain a copy of the booklet *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*.

Our organization has made prearrangements for appropriate post-exposure evaluation and follow-up for all employees involved in an exposure incident. An *exposure incident* means specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM

that results from the performance of an employee's duties. After an exposure incident is reported, we make *immediately* available to the exposed employee a confidential medical evaluation and follow-up. Follow-up may include post-exposure prophylaxis (when medically indicated), counseling, and evaluation of a reported illness, if appropriate. For each exposure incident, we document the route(s) of exposure and the circumstances under which the exposure incident occurred.



Personnel Designated to Provide Post-Exposure Evaluation and Follow-up

Name of In-house Health Care Professional(s):

Telephone/Pager Number:

Name of Alternate Health Care Provider(s):

Telephone/Pager Number:

Description of Procedures

1. Appropriate Post-Exposure Evaluation _____

2. Post-Exposure Prophylaxis _____

3. Follow-up _____

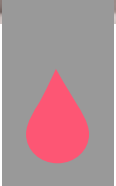
4. Additional Services _____

Effective Procedures





Evaluation of Circumstances Surrounding Exposure Incidents



For additional assistance, obtain a copy of *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*.

Our policy is to evaluate the circumstances (including the route(s) of exposure) under which all occupational exposure incidents occur. This evaluation is conducted as soon as possible after a report of an exposure incident is submitted. For each reported exposure incident, we gather and evaluate, if possible, the following information:

Date and location (department, unit, floor, dental operator, etc.) of exposure incident:

Employee(s) job classifications:

Tasks and procedure(s) performed:

Routes of exposure (e.g., eye, intact skin, non-intact skin, mouth, other mucous membranes, parenteral contact, etc.):

Description of sharp(s) or other device(s) involved (including type and brand):

Personal protective equipment worn:

Other pertinent information:

Date of evaluation: _____

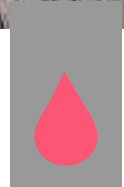
Evaluator(s) name(s):

Telephone/pager number _____

Telephone/pager number: _____

 Make copies as needed

Work Practice Controls Exception to Prohibited Practices



Our organization prohibits the bending, recapping, or removal of contaminated sharps from devices *except when*:

- It can be demonstrated that there is no feasible alternative to this action or that a specific medical or dental procedure requires such action, and
- That action is performed by using a mechanical device or a one-handed technique.*

For each device and the associated task and procedure, describe the reason(s) for the bending, recapping, or removal of contaminated sharps:

The name of the supervisor making the decision to bend, recap, or remove contaminated sharps:

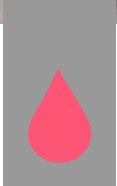
Date: _____

**One-handed technique* refers to a procedure in which the needle of a reusable syringe is capped in a sterile manner during use. The technique employed requires the use of only the hand holding the syringe so that the free hand is not exposed to the uncapped needle.

 Make copies as needed



Gathering Sharps Injury Log Information



A *sharp* is any object used or encountered that can be reasonably anticipated to penetrate the skin or any other part of the body, resulting in an exposure incident. Sharps include, but are not limited to, needle devices, scalpels, lancets, broken glass and capillary tubes, exposed ends of dental wires and knives, drills, and burs. An *exposure incident* means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

A *sharps injury* means any injury caused by a sharp, including but not limited to cuts, abrasions, or needlesticks. A Sharps Injury Log has been established and maintained as a record (in either written or electronic form) of *each* exposure incident involving a sharp. Our policy is to maximize the utility of the Sharps Injury Log by filling out the information as completely as possible in easy-to-understand language. The log documents our organization's sharps injury history in sufficient detail to support the development of effective exposure-control strategies.




Sharps Injury Log

The following information, if known or reasonably available, is documented within 14 working days of the date on which each exposure incident was reported.

1. Date and time of the exposure incident: _____
2. Date of exposure incident report: _____ Report written by: _____
3. Type and brand of sharp involved: _____
4. Description of exposure incident:
 - Job classification of exposed employee: _____
 - Department or work area where the incident occurred: _____
 - Procedure being performed by the exposed employee at the time of the incident: _____

 - How the incident occurred: _____
 - Body part(s) involved: _____
 - Did the device involved have engineered sharps injury protection? Yes (✓) _____ No (✓) _____
 - Was engineered sharps injury protection on the sharp involved? Yes (✓) _____ No (✓) _____

If Yes	If No
<p>A. Was the protective mechanism activated at the time of the exposure incident? Yes ___ No ___</p> <p>B. Did the injury occur before, during, or after the mechanism was activated?</p> <p>_____</p> <p>Comments: _____ _____</p>	<p>A. Does the injured employee believe that a protective mechanism could have prevented the injury? Yes ___ No ___</p> <p></p>

- Does the exposed employee believe that any controls (e.g., engineering, administrative, or work practice) could have prevented the injury? Yes (✓) _____ No (✓) _____
- Employee's opinion: _____

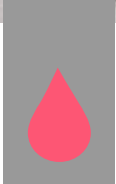
5. Comments on the exposure incident (e.g., additional relevant factors involved):

6. Employee interview summary:

7. Picture(s) of the sharp(s) involved (please attach if available).



Making Periodic Determinations of the Frequency of the Use of Sharps Involved in Exposure Incidents



Periodic determinations are made on the frequency of use and the types, models, or brands of sharps involved in the exposure incidents documented on our Sharps Injury Log. We make these determinations (which include a review of our Sharps Injury Log) _____ (e.g., monthly, quarterly, semiannually, annually).

The Use of Sharps Involved in Exposure Incidents

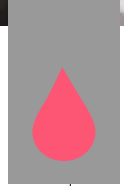
<i>Areal/Location or Unit</i>	<i>Type/Model/Brand of Sharp</i>	<i>Task or Procedure Performed</i>	<i>Date and Description of Exposure Incident</i>	<i>Frequency of Use of Sharps*</i>	<i>Supervisor Making the Determination</i>

* Reasonable and effective methods are employed to approximate the frequency of use of sharps involved in exposure incidents (e.g., looking at purchase records or in-house tracking records, statistical sampling, combinations of these or other methods). The methods employed by our organization include the following:

Comments: _____

 Make copies as needed

Identifying and Selecting Appropriate and Currently Available Engineering Control Devices



For additional assistance with identifying and selecting engineering controls, obtain a copy of *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*.

Our policy is to select appropriate and effective engineering controls to prevent or minimize exposure incidents. Engineering controls means controls (e.g., sharps disposal containers, needleless systems and sharps with engineered sharps injury protection) that isolate or remove the bloodborne pathogens hazard from the workplace.

We first evaluate products that eliminate the use of sharps (e.g., needleless systems), if available. If these devices are not selected, we then evaluate devices equipped with engineered sharps injury protection (ESIP). ESIP means either (1) a physical attribute built into a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, which effectively reduces the risk of an exposure incident by a mechanism such as barrier creation, blunting, encapsulation, withdrawal, or other effective mechanisms; or (2) a physical attribute built into any other type of needle device or into a non-needle sharp, which effectively reduces the risk of an exposure incident.

We establish and maintain procedures for identifying and selecting appropriate and effective engineering controls, which may include the following steps:

- | | | | |
|-----------------------|-----------|-----------------------------|-----------|
| 1. Set up a Process | (✓) _____ | 4. Test and Select Products | (✓) _____ |
| 2. Define Needs | (✓) _____ | 5. Use New Products | (✓) _____ |
| 3. Gather Information | (✓) _____ | 6. Conduct Follow-up | (✓) _____ |

We modify the steps outlined above to fit our requirements as follows:



I. Set up a Process

We use a systematic process to identify and select appropriate and effective engineering controls. The process may include committees, subcommittees, working groups, a lead person, or other responsible employees. The same groups or individuals are responsible for all the steps in the process of identifying and selecting engineering controls. In our organization the setup is:

 Make copies as needed

We actively involve managers and employees from departments, units, floors, or dental operatories where engineering controls are (or will be) used. We choose individuals with expertise and experience in particular professions or specialties to evaluate new products that will be used in their area(s) of practice. Individuals involved in our process include:



2. Define Needs

We address each potential exposure of the tasks and procedures performed in various departments, units, floors, or dental operatories. We solicit input from frontline employees, supervisors, and managers. We also collect occupational exposure and injury data. We then identify our needs and establish our priorities on the basis of an analysis of all the available information.

Priority	Potential Exposures to Be Addressed	Work Area
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____



3. Gather Information

We gather information on currently available engineering controls that are designed to reduce occupational exposure to blood or OPIM. Because new technology is continually entering the marketplace, we also periodically search for information on new products.



4. Test and Select Products

Each potential exposure is addressed by applying screening criteria to the engineering controls under consideration. When available, multiple devices are screened for each potential exposure being addressed. This helps ensure that more than one product is selected for testing for a given task or procedure.

Screening criteria are applied to products in order to eliminate those with readily identifiable problems (e.g., ineffective devices, safety issues, visual obstructions). Only devices meeting an acceptable number of screening criteria are then tested in actual patient or product trials. For each exposure being addressed, we document the new products that meet an acceptable number of screening criteria and will be included in the testing.



Make copies as needed

Department/Unit/Floor/ Dental Operatory	Potential Exposure to Be Addressed	New Products Chosen to Test for This Exposure	Catalog No.
_____	_____	1 _____	_____
		2 _____	_____
		3 _____	_____
		4 _____	_____
		5 _____	_____
_____	_____	1 _____	_____
		2 _____	_____
		3 _____	_____
		4 _____	_____
		5 _____	_____

Testing Products

Testing can help evaluate whether products are actually effective at reducing or eliminating workplace exposure incidents. Frontline employees who perform the tasks and procedures associated with the exposures being addressed are involved in the testing. If available, multiple products from a single category of devices are tested for each potential exposure being addressed. The testing of new products is suspended immediately if there is any evidence that a device is causing injuries to employees or patients.

To help ensure that devices are handled safely and evaluations are objective, we provide training on the safe and proper use of devices *before* testing begins. This training is given to the groups or individuals responsible for product selection, all participants involved in the testing, and their supervisors. Participants in the testing are also given the opportunity to practice using the new devices. These practice sessions simulate, as closely as possible, the tasks and procedures involved under “real-life” conditions. Representatives of manufacturers and distributors are requested to demonstrate the intended use of their products, answer questions, and train employees in the safe operation of each device.

“Tools”

Checklists, evaluation forms, or other types of standardized “tools” are used in the testing of new products. The tools are tailored to the specific category of product under consideration. To provide a standard basis for comparison among products, we use the same checklist or evaluation form when testing multiple products within a given type or category of device.

Protocols

We may use protocols in our testing process to make the evaluation of new products more systematic. Protocols also help us document the details of each item involved in our testing process.

Selecting Products

After the testing is completed, all the information, including checklists and evaluation forms, is reviewed. Input from frontline employees involved in the testing is documented and considered when it is time to select products for purchase. Based on the analysis of all the available information,

 Make copies as needed

consensual decisions are made regarding whether to purchase particular products. If two or more products are found to be satisfactory in a given category, we consider purchasing them. We document how devices ranked and which products we have decided to purchase. We provide feedback to employees on the ranking and selection of products.



5. Use New Products

We may introduce new products on a limited basis in a pilot implementation or trial phase. During this trial period, issues associated with the day-to-day use of the new products may arise. Employees may need time to develop new skills, establish new work practices, and break old habits. Employees are *strongly encouraged* to report any problems to their supervisors during the trial period. If problems appear to be serious or widespread, they are reported to the decision makers. Problems with new products are addressed as they arise and are resolved before the new product is used throughout our organization.

All staff members (and supervisors) using the new products or devices are thoroughly trained. This training is a mix of the knowledge and skills needed to work safely. For each new device, representatives of manufacturers and distributors are requested to:

- Demonstrate its proper use and application
- Answer questions
- Provide training on its safe operation
- Provide follow-up

Training also includes practice sessions to simulate the tasks and procedures that individuals will be performing with the new devices. Multiple devices may have been selected for a given task or procedure. If this is the case, individuals are trained on all the selected devices.



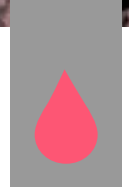
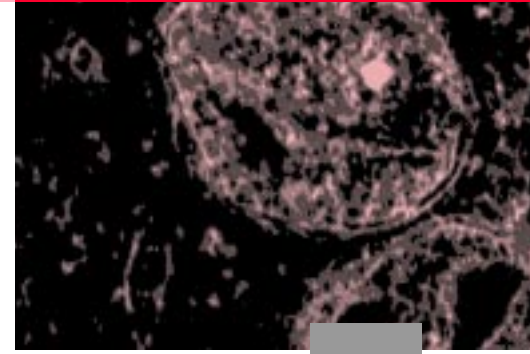
6. Conduct Follow-up

Follow-up helps ensure that new products are effective and appropriate and are replaced over time by newer, more effective technology. As newer products become available, they are screened, tested, and selected according to the process described previously.

Our follow-up process systematically reevaluates devices and incorporates the input of frontline employees who have been using the products. Decisions on the appropriateness and effectiveness of new devices are not made until employees have had enough time to adjust to using the products. Follow-up evaluations of products and the associated work practices are conducted six months after the implementation and quarterly, semiannually, or annually thereafter. *Findings are used to improve product selection and training.*

Staff members receive periodic feedback on how new products are working and what other products have become available. Follow-up training is provided if problems are discovered with work practices or currently used devices. If newer devices are selected to replace those currently being used, *all individuals* (and their supervisors) using the newer devices are thoroughly trained.

Engineering Controls— Exception 2



Additional information on Exceptions 1, 3, and 4 to using engineering controls may be found in *A Best Practices Approach for Reducing Bloodborne Pathogens Exposure*.

The use of engineering controls (e.g., needleless systems, needle devices, and non-needle sharps) is *not* required if a licensed health care professional:

- Is directly involved in the patient’s care
- Determines that the control will jeopardize the patient’s safety or the success of a medical, dental, or nursing procedure
- Exercises reasonable clinical judgment

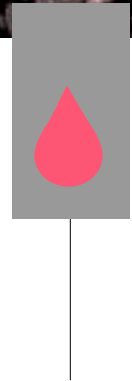
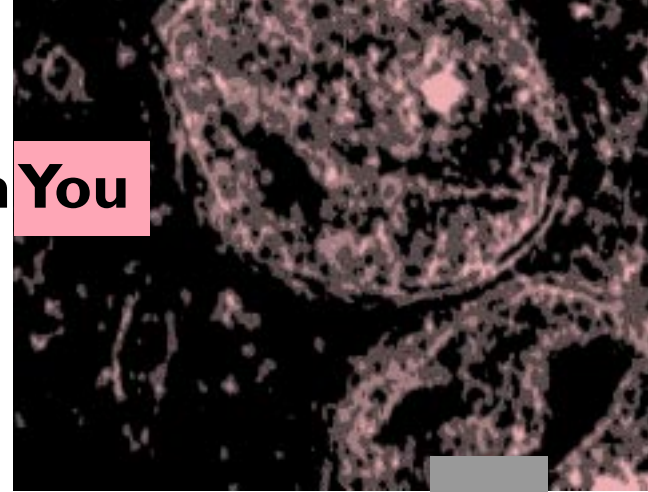
If this exception applies, the form below (or equivalent information) should be submitted to the exposure control plan administrator.

Patient Safety Determinations for Exceptions to Using Engineering Controls

Type of Control Under Consideration and Procedure(s) or Tasks(s) Involved	Name of Licensed Health Care Professional Making the Determination	Date of Determination	Reason(s) for the Exception

Comments:

We Want to Hear from You



Cal/OSHA values and welcomes your comments about our booklet. We want to provide the best service possible to employers and employees in California. To give Cal/OSHA feedback about this booklet, please fax this form to the Education Unit at (916) 574-2532, e-mail us at Dosheducation@hq.dir.ca.gov, or mail your comments to:

Education Unit
 Cal/OSHA Consultation Service
 2211 Park Towne Circle, Suite 4
 Sacramento, CA 95825

	Yes	No	Comments
1. Has the information contained in this booklet encouraged you to develop, evaluate, or improve an exposure control plan for bloodborne pathogens at your workplace?			
<ul style="list-style-type: none"> • Which worksheets are the most helpful? (For each worksheet, please indicate the title, why the worksheet was helpful, and page number[s].) • Which worksheets need improvement? (Please indicate the title and page number[s] of the worksheet and specific suggestions.) 			
2. Has the information contained in this booklet effected any other changes in your workplace regarding bloodborne pathogens issues?			
3. Are any parts of the booklet unclear or confusing? What improvements do you recommend? (Please provide the page numbers of the booklet and the specific topics.)			
4. What important issues were not addressed? (Please describe in detail.)			
5. Do you have any other comments? (When referring to specific text or sections, please indicate the page numbers.)			
6. Do you have a bloodborne pathogens success story to share with us? (If so, please provide your name and telephone number.)			

Thank you for your participation.

 Make copies as needed



Acknowledgments



Writers and Editors

Zin Cheung and **Mario Feletto**, Cal/OSHA Consultation Service, Education Unit, Sacramento, California

The authors thank the following persons and organizations for their support and assistance in the research and development of this document:

Editorial Review

Michael Alvarez, Regional Manager, Cal/OSHA Consultation Service, Sacramento, California

Dave Bare, Program Manager, Cal/OSHA Consultation Service, Sacramento, California

John Howard, Chief, Division of Occupational Safety and Health, California Department of Industrial Relations, San Francisco, California

Faye Ong, Associate Editor, CDE Press, California Department of Education, Sacramento, California

Len Welsh, Special Counsel for DOSH Regulatory Affairs, California Department of Industrial Relations, San Francisco, California

On-site Development and Research

University of California Davis Medical Center, Sacramento, California

Carl Foreman, Acting Director, Environmental Health and Safety, University of California, Davis, Health Systems, Sacramento, California

Gilda L. Gaerlan-Acosta, EH & S Specialist I, Environmental Health and Safety, University of California, Davis, Health Systems, Sacramento, California

Layout and Design

Paul Lee, Graphic Designer III, CDE Press, California Department of Education, Sacramento, California

Photo Credits

Cal/OSHA gratefully acknowledges **Emi Manning**, University of California, Davis, and the following organizations for the use of photographs that appear in the booklet:

Becton Dickinson and Company, Franklin Lakes, New Jersey

OSHA Review, Inc., Sacramento, California

Retractable Technologies, Inc., Little Elm, Texas

Venetec International, Inc., San Diego, California

Note: The titles and locations of the persons included in this list were current at the time this booklet was developed.

Blank -- back of cover

Cal/OSHA Consultation Programs

Toll-free number 1-800-963-9424 • Internet: www.dir.ca.gov

On-site Assistance Program Area Offices



**Your call will in no way trigger an inspection by
Cal/OSHA enforcement.**

• **Voluntary Protection Program**
San Francisco, CA 94142
(415) 703-5272

• **Education Unit**
Sacramento, CA 95825
(916) 574-2528

