

# ***WORKING SAFER AND EASIER***

for Janitors, Custodians,  
and Housekeepers



Department of Industrial Relations  
Cal/OSHA Consultation Service  
Research and Education Unit



# Publication Information

*Working Safer and Easier: for Janitors, Custodians, and Housekeepers* was developed and prepared for publication by the Cal/OSHA Consultation Service, Research and Education Unit, Division of Occupational Safety and Health, California Department of Industrial Relations. It was distributed under the provisions of the Library Distribution Act and *Government Code* Section 11096.

Published 2005 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 the *California Code of Regulations, Title 8*, or the *Labor Code* for detailed and exact information, specifications, and exceptions.

The display or use of particular products in this booklet is for illustrative purposes only and does not constitute an endorsement by the Department of Industrial Relations.

*In Memory of Douglas Binion*

# Contents

## INTRODUCTION

## FACT SHEETS FOR CREATING A SAFER WORKPLACE

### Tips for Managers

1. A Safe and Healthful Workplace
2. Commitment to Safety and Health
3. Effective Communication
4. Training
5. Work Assignment
6. Productivity and Rest Breaks
7. Buying Equipment and Supplies
8. Equipment Maintenance Program

### General Guidelines

9. Know Your Body
10. Organizing Work
11. Workplace Awareness
12. Preventing Slips, Trips, and Falls
13. Chemicals and Their Health Effects
14. Procedures for Safe Handling and Use of Chemicals
15. Using Personal Protective Equipment

### Using Ergonomics

16. Moving Barrels/Carts
17. Emptying Office Trash Cans
18. Lifting Garbage from a Barrel
19. Dumping Trash Bags
20. Moving Furniture
21. Lifting and Moving
22. Carrying Buckets
23. Mopping
24. Wringing Mops
25. Emptying Mop Buckets
26. Sweeping
27. Scrubbing
28. Cleaning Tile Walls
29. Making Beds
30. Handling Soiled Linens
31. High Dusting
32. Wiping and Dusting
33. Taking Breaks

## ACKNOWLEDGMENTS

## WORKER TRAINING AND INSTRUCTION RECORD

## EMPLOYEE SAFETY POSTERS

# Introduction

Janitors, custodians, and others who work in the cleaning industry need a safe and healthful workplace. Two educational products have been developed: one is a series of fact sheets, and the other is a series of posters. Both products have been designed to be used by companies of any size and in places such as schools and universities, office buildings, apartments, and rental properties. They may also be used by housekeeping services for hospitals, hotels, and motels.

- *Tips for Managers* (fact sheets 1–8) are intended to provide business owners, managers, and supervisors with helpful tips for managing the staff and the workload. It may increase productivity in a safe and healthful way.
- The remaining fact sheets are intended for owners, managers, and supervisors to use when training employees during new employee orientation, tailgate meetings, classroom training, and whenever sharing of information is useful:

*General Guidelines* (fact sheets 9–15) address various topics to help increase awareness of the most common workplace hazards. They give ideas for greater efficiency and the prevention of injuries.

*Using Ergonomics* (fact sheets 16–33) address specific tasks and the risks involved. They feature ways of using equipment and best work practices.

- The posters are to be displayed where they can help janitors, custodians, and housekeepers with the tasks they perform routinely. Practical suggestions for accomplishing tasks safely are shown in photos. The posters are designed to be displayed a few at a time in areas frequented by employees. Managers should periodically change the display to give employees new tips on working safely yet efficiently.

Using this information can help employers, managers, and supervisors lower the cost of doing business, reduce workers' compensation costs, and retain a more stable workforce that delivers quality work with greater efficiency and productivity. Employees can benefit by protecting their health, income, and future job opportunities.

# Tips for Managers

Workplace hazards can be costly as workers may suffer injuries. You can make a difference by implementing the tips in the following fact sheets:

1. A Safe and Healthful Workplace
2. Commitment to Safety and Health
3. Effective Communication
4. Training
5. Work Assignment
6. Productivity and Rest Breaks
7. Buying Equipment and Supplies
8. Equipment Maintenance Program





Employers are responsible for providing a safe and healthful workplace. They must follow state laws governing job safety and health. The type of tasks performed by your employees and the job hazards they may face determine which Cal/OSHA regulations to implement.

One regulation calls for all employers to develop an Injury and Illness Prevention Program. The Injury and Illness Prevention Program is the first and most important way for an employer to reduce potential workplace hazards. The Injury and Illness Prevention Program is a blanket or umbrella safety program that can incorporate other required Cal/OSHA regulations. Depending on the types of tasks performed, you may be required to develop programs involving lock-out/tag-out procedures, personal protective equipment, bloodborne pathogens and other biological hazards, or a hazard communication program, and so on.

**Note:** These fact sheets do not address all the safety and health hazards that may exist at your worksite. It focuses on some of the most common hazards encountered.

For further resources on how to develop an effective safety and health program, review the *Guide to Developing Your Workplace Injury & Illness Prevention Program* and the *California Code of Regulations, Title 8 (T8 CCR), Section 3203, Injury and Illness Prevention Program*. That guide and other Cal/OSHA publications may be viewed, downloaded, and ordered free of charge from the Department of Industrial Relations Web site (<http://www.dir.ca.gov/dosh/puborder.asp>).

You can also get help in identifying and correcting safety and health hazards in your workplace by calling the Cal/OSHA Consultation Service. To schedule a free technical assistance visit, obtain further information, or learn about other services, contact your nearest area office of the Cal/OSHA Consultation Service or call our toll-free number at (800) 963-9424.

Although Cal/OSHA Enforcement and Cal/OSHA Consultation Service are both part of the Division of Occupational Safety and Health (DOSH), the Consultation Service performs a separate function.





Support from top management and employees is critical for a safer workplace. It is essential to:

- Look carefully at the work environment to identify problems and potential risks.
- Get ideas from employees on reducing or eliminating risks.
- Take corrective actions. Be sure to follow up.
- Let workers know that safety rules protect their health and ability to make an income.
- Instruct workers they are expected to use safe work practices.
- Lead by example and show your commitment to health and safety at your job.
- Observe how different employees who perform the same job vary in the way they actually accomplish the work. Variations can reveal real opportunities for risk reduction.
- Encourage employees to report hazardous conditions.
- Respond promptly to workers' concerns.
- Negotiate changes with building owners, if necessary.
- Provide personal protective equipment (PPE) free of charge to employees.



Supervisor observing and looking for a safer way to accomplish the task



Make sure enough PPE is available.

Rethink how to change a physically demanding job to make it safer or less demanding so most workers can successfully perform that job. For example, replace string mops.

- Use lightweight microfiber mops.
- Certain types of microfiber mops are designed so that, once soiled, they can be detached and laundered.
- Other types of microfiber mops are used with a bucket (see photos), and less force is needed to wring these mops.
- Use a lightweight telescopic pole to extend workers' reach.



Mopping with a microfiber mop



Less force is required to wring a microfiber mop.

Good communication in the workplace goes two ways and is an essential part of the Injury and Illness Prevention Program (IIPP). Your company may receive many benefits as a result of effective communication. It is important to:

- Be alert and report dangerous conditions.
- Suggest ways to help cut costs and improve productivity.
- Develop ideas to help solve workplace health and safety problems.
- Produce higher-quality work.
- Meet with staff regularly to talk through issues clearly and resolve problems.
- Communicate in a language that employees understand.
- Establish an open-door policy to discuss any problems employees may have.
- Understand different cultures and customs.
- Explain the reason for some decisions so workers walk away feeling their concerns were heard.
- Make staff feel comfortable about going to you for help.
- Make employees feel part of a team to further enhance teamwork, greater productivity, and employee satisfaction.
- Make employees feel valued and show appreciation for their work.
- Provide a secure method of communication (for example, a suggestion box). Employees can report anonymously their concerns or issues.



Use employees' ideas to resolve problems.



Encourage communication and sharing of ideas.



The goal is to provide employees with greater awareness of workplace hazards and the knowledge and skills to do their job efficiently and safely.

Your company benefits from higher profits, reduced high-risk behavior, and a more dependable workforce. For these reasons, it is essential not just to collect trainees' signatures but to provide effective training. Remember: well-trained employees work with confidence and are more productive, which may help your company to be successful.



Demonstrate appropriate tool use.



For each job, train employees on proper work practices.

Supervisors can contribute to workplace safety by:

- Providing training
- Making sure workers understand why and how to use equipment properly
- Monitoring work and identifying workers in need of training or refresher training as the work changes



## 4 Training (cont.)

*Remember:* Trained workers still need some time to get used to a new tool or adopting a new work practice.

### *Effective training:*

- Lets workers know that training is an investment in their own health.
- Presents the company's safety policies and procedures, including steps to take in emergencies.
- Encourages employees to avoid injuries at work through such means as proper body mechanics, proper handling of chemicals, and use of PPE.
- Is provided in a language and at a level understandable to the employee.
- Includes a demonstration by the employee of the new skill.
- Allows employees to ask questions and raise concerns.
- Uses visual aids.
- May use a mentor or a buddy system so the new worker learns from a well-trained and experienced employee.

Training cannot overcome risks built into the design of machinery or equipment; however, it does ensure that equipment:

- Is set up correctly and used appropriately. Lack of appropriate training will increase the likelihood of problems during use and the risk of injuries to the user and other personnel in the area.
- Is not misused so it will last longer (for example, pulling the electrical cord from a distance rather than pulling the plug at the outlet).
- Is reported for repairs as soon as it malfunctions. This practice is key to productivity and injury prevention.
- Is quickly returned to operation as well-trained employees are able to perform simple maintenance, such as replacing a vacuum cleaner brush or belt, on their own.



Proper use of heavy machinery is key to injury prevention.



Instruct workers in the safe use of all equipment.

Different workers excel at different jobs. Effective management recognizes what workers are good at and matches their skills and preferences to the work. Supervisors can help employees succeed in their job and deliver high-quality service. It is essential to:

- Schedule a sufficient number of staff on duty.
- Know your staff members and establish good rapport with them.
- Assign a workload that can be reasonably completed in the time limit allowed.
- Distribute work without favoritism.
- Consider assignment rotation. It promotes greater productivity while helping to reduce repetitive chemical exposure and repetitive physical stress. Do not assign 8 hours of bathroom cleaning or furniture moving to a single employee.
- Consider the training of the employee. Enhance training or provide retraining when necessary.
- Match the job assignment to the skill and capability of each person.
- Avoid assigning last-minute tasks and special requests that may prevent the worker from finishing the job on time.
- Be aware of overtime assignments. Accidents and problems are more likely to occur when workers are tired and worn out.



Match the job to the capability of the worker.



Following a heavy task, assign the employee to a lighter task.





Cleaning is intense, fast-paced, and physically demanding work. It is also repetitive, requiring the use of force and awkward body postures. Oftentimes if a supervisor expects greater productivity with new equipment, he or she adds extra tasks or allows less time to complete the job. Planning efficient workflow with your staff is critical. Avoid rework and accidents by setting reasonable workloads. Remember: productivity and work quality go down as fatigue sets in. Allow adequate rest periods for staff.

*Consider the following suggestions:*

- Instruct workers to switch hands whenever possible.
- Assign work alternating heavy and light jobs, if possible.
- Assign different jobs that require the employee to use another muscle group such as dusting followed by vacuuming.
- Ensure that workers take their mandatory rest breaks. Make drinking water available to employees.
- Frequent, shorter rest breaks are more helpful for rest and recovery than a single, longer rest break.
- Encourage workers to stretch at the beginning and throughout their work day.



**Alternate hands often.**





Purchasing the right equipment and materials can give your company a huge advantage. By providing the proper supplies and equipment, you are helping your staff to be as effective and efficient as possible while promoting safety. Do not consider only the cost when making a purchase. Ask your staff members for their ideas about requirements, features, usability, and preferences. Cleaners use equipment and supplies every day and are aware of the benefits and disadvantages with each one.



Adjustable telescopic poles help to minimize awkward body postures.



Select the right size mop head.

Avoid buying “problem” equipment and supplies by taking these actions:

- Find the best wheels or casters for the job so that equipment rolls easily. Consider the best size and material of wheels or casters as well as type of floor and work environment. Small wheels can get caught on holes and uneven floor surfaces.
- Involve staff members in the testing of equipment and materials and use their feedback.
- Provide a selection of equipment (for example, adjustable poles for short and tall workers and mop heads suited for workers of different strength).
- Buy the appropriate cleaning product for the job. Strong chemicals may harm the surface. They may wear it down and be dangerous to the health of the user.

**Remember:**

- Always keep on hand enough products and parts, particularly those that need frequent replacement.
- Choosing better equipment and materials saves time. Equipment in good condition contributes to higher productivity and less fatigue.



Provide vacuum cleaner bands as needed.



Motorized buffer covers more surface area.



Maintenance of equipment is an investment for greater productivity. One way to protect your investment is to make a maintenance schedule and stick to it. Equipment in safe working order allows for healthier work practices. Unexpected or forceful actions required to operate faulty or poorly maintained equipment can lead to strain and injuries.

- Inspect and maintain wheels and casters. Rolling is easier when wheels and casters are clean and well lubricated.
- Establish a reporting procedure so that workers have a way to report broken or faulty equipment.
- Make sure that broken or malfunctioning equipment is tagged, removed from service, and repaired as soon as possible to maintain productivity and prevent worker injury.
- Arrange for alternate equipment when machinery breaks down.



Instruct employees to report faulty equipment.

*Remember: equipment in good working order saves effort, time, and money.*



Service request tag front and back



# General Guidelines

This section provides information on basic hazard awareness as well as general guidelines for injury prevention, greater efficiency, and productivity.

9. Know Your Body
10. Organizing Work
11. Workplace Awareness
12. Preventing Slips, Trips, and Falls
13. Chemicals and Their Health Effects
14. Procedures for Safe Handling and Use of Chemicals
15. Using Personal Protective Equipment







Custodians, janitors, and housekeepers suffer injuries that frequently involve bone, cartilage, muscle, and nerves. The most common body parts affected are the following:

Back	Shoulders	Neck	Arms
Wrist/hands/fingers	Knees	Ankles	Elbows

What causes injuries? Certain actions can lead to fatigue, discomfort, or pain when you do them *over and over without a break*. These are:

- Exerting *force* to perform a task or to use a tool (e.g., lifting corners of mattresses or scrubbing with a brush)
- Working in *awkward postures*, such as bending or twisting the back to clean the tub, overhead reaching for dusting, or mopping with elbows away from the body
- *Remaining in the same position* for a long time with little or no movement
- *Continuous pressure* from a hard surface or edge on any part of the body (for example, kneeling or crawling while cleaning the bathroom floor)
- Working in very hot or cold temperatures
- Holding equipment that *vibrates* (for example, the handle of a pressure washer)

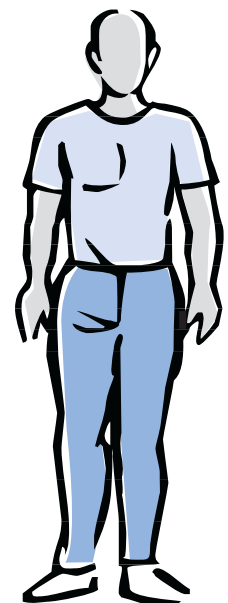
Be sure to report right away any injuries to your supervisor. If you feel discomfort, pain, or other symptoms, you must either change the way you work or the equipment you use. If no changes are made, your symptoms may get worse and keep you from working at all.

You may have a problem if you have any of these symptoms:

- Constant fatigue
- Cold hands
- Swelling
- Numbness
- Tingling
- Changes in skin color of hands and fingertips
- Weakness or reduced grip strength
- Loss of sensation
- Aching, burning, or shooting pain
- Decreased range of motion

If you develop any symptoms:

- Talk with your supervisor about your symptoms right away.
- Follow your company's medical management program. If necessary, seek medical treatment to prevent the problem from getting worse.
- Work with your supervisor to find the cause of the problem.
- Always look for better ways to do your job.





Some causes of unsafe behavior are shortage of time and pressure to get the job done. People will work fast in a disorganized way and pay no attention to safety. They may struggle to handle their duties and last-minute chores. Carelessness and rushing can lead to injury.

### *Tips and improvement ideas*

- Plan your workday in advance. To avoid unnecessary work, set the order of the tasks you have been assigned.
- Before starting, make sure that the tools and equipment are in good working order.
- Identify special tasks that require additional personal protective equipment (PPE), materials, and other equipment. Coordinate with other workers to arrange for help before starting the job.
- Alternate heavy and lighter tasks throughout the day, if possible.
- Establish the best way to accomplish each task. If in doubt, talk to your supervisor and ask questions.



Make sure you have the right tools and equipment.



Share issues and concerns with your supervisor.



Janitorial tasks are often repetitive. As you become accustomed to the work routine, you may overlook the hazards. A busy schedule, fatigue, or the past success of shortcuts may blind you to safety rules.

### *Tips and improvement ideas*

- Report difficulties or unusual findings to your supervisor.
- Be aware of your surroundings and changing conditions at all times. Examples include placement of furnishings, uneven pavement, wet floors, swinging doors, and poor lighting.
- Pay attention to the task. Hazards are still present even though you have been doing the work for years.
- Remember to work safely in order to prevent injuries.



Report findings and problems to your supervisor.



Be attentive to changeable outdoor and indoor conditions.



One of the most common hazards for janitors, custodians, and other cleaning workers is slipping on wet floors or tripping over an object. A slip or trip may result in a fall. A fall may cause a devastating injury (for example, head injuries, broken bones), bruises, sprains, or strains.

### Slips

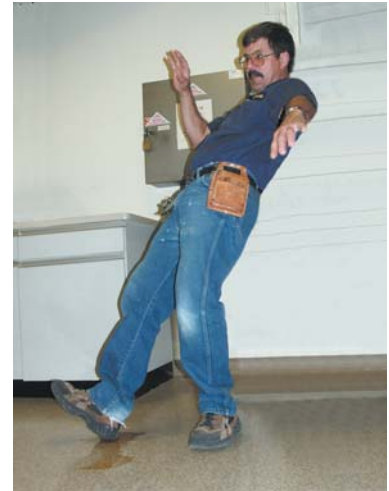
Slips happen where there is too little friction or traction between the footwear and the floor. Common causes of slips are:

- Wet, waxed, or oily surfaces
- Occasional spills
- Weather hazards (that is, ice, rain, or snow)
- Improper footwear (that is, high heels, shoes with slick soles)
- Loose, unanchored rugs or mats
- Floors or other surfaces that do not have some degree of traction in all areas

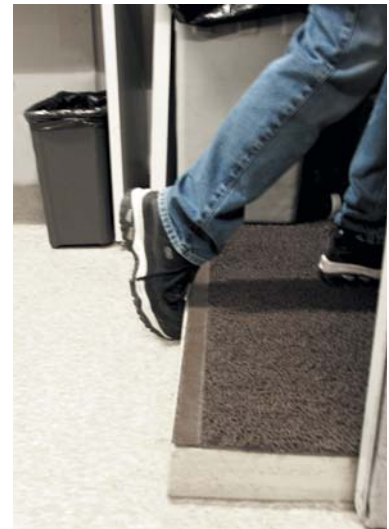
### Trips

Trips happen when your foot strikes or hits an object, causing you to lose your balance and eventually fall. Common causes of tripping are:

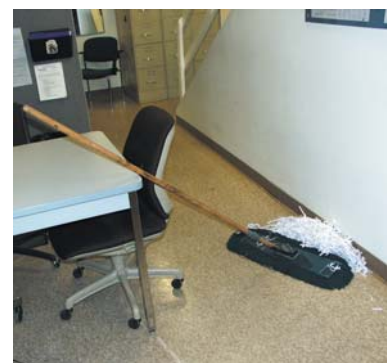
- Obstructed view
- Poor lighting
- Clutter
- Wrinkled carpeting
- Cables or cords left in the open
- Bottom drawers left open
- Uneven (steps, thresholds) surfaces



Slipping on wet floor



Tripping on step



Tripping hazard

## 12 Preventing Slips, Trips, and Falls - Part A

### Prevention of Falls

Both slips and trips result from some kind of change in the contact between the feet and the ground. Good housekeeping, improvements to flooring, proper footwear, appropriate pace of walking, and proper visibility are critical for preventing fall accidents.

### Housekeeping

Good housekeeping is the first and most important step in preventing falls due to slips and trips. It includes the following practices:

- Clean all spills immediately.
- Mark spills and wet areas with warning signs and barricades.
- Spread grease-absorbent compound on oily surfaces.
- Mop or sweep debris from floors.
- Remove obstacles from walkways and always keep them free of clutter.
- Secure mats, rugs, and carpets that do not lay flat by tacking or taping them down.
- Always close file cabinet or storage drawers.
- Cover cords and cables that cross walkways.
- Keep working areas and walkways well lit.
- Replace burned-out light bulbs and faulty switches.



Place a warning sign by wet floors.

Without good housekeeping practices, other preventive measures such as installation of sophisticated flooring, specialty footwear, or training on techniques of walking and safe falling will never be fully effective.

### Flooring

Changing or modifying the flooring is the next level of preventing slip, trips, and falls. Floors can be modified by:

- Recoating or replacing floors
- Installing mats or pressure-sensitive abrasive strips or applying an abrasive coating
- Installing metal or synthetic decking

However, it is critical to remember that high-tech flooring requires good housekeeping as much as any other flooring. In addition, resilient, nonslippery flooring prevents or reduces foot fatigue and contributes to slip-prevention measures.



### Footwear

In workplaces where floors may be oily or wet or where workers spend considerable time outdoors, prevention of fall accidents begins with selecting proper footwear. No footwear has antislip properties for every condition. Consultation with manufacturers is highly recommended.

Properly fitted footwear increases comfort and prevents fatigue, which, in turn, improves safety for the employee.

### Appropriate Pace

People working in a rush can get into a situation that may lead to a slip, trip, or fall. Reduce the chances of a fall by taking the following actions:

- Take your time and pay attention to where you are going.
- Adjust your stride to a pace that is suited to the type of flooring and the tasks you are doing.
- Walk with the feet pointed slightly outward.
- Make wide turns at corners.

### Proper Visibility

- Always use the available light sources to provide sufficient light for your tasks.
- Use a flashlight if you enter a dark room.
- Ensure that things you are carrying, pushing, or pulling do not prevent you from seeing any obstructions, spills, and so on.



Wear stripping shoes when stripping wax from a floor.



Carrying large objects can block your view.

The material was adapted from information provided by the Canadian Centre for Occupational Health and Safety (CCOHS), 135 Hunter Street East, Hamilton, Ontario L8N 1M5; telephone: (905) 572-4400; toll-free 1-800-263-8466; fax: (905) 572-4500; e-mail: [inquires@ccohs.ca](mailto:inquires@ccohs.ca).



As an employee, you have the right to protect yourself from hazardous chemicals at the workplace. By law, your employer must inform you about the health hazards of the chemicals you work with. You need to:

- Be informed of any operations in your work area where hazardous chemicals are present.
- Know the location of the written hazard communication program, including the list(s) of hazardous chemicals and the Material Safety Data Sheets (MSDS).
- Know and understand the labeling system, each section of the MSDS, and how to obtain and use the appropriate hazard information.
- Get training in how to detect the presence or release of hazardous chemicals.

Employers must communicate with employees in terms or in a language that is understandable to all affected employees. Employees must understand the meaning of terms such as “hazardous” and “Material Safety Data Sheets.”

- **Hazardous** means the likelihood that a substance might cause injury.
- **Material Safety Data Sheets (MSDS)** have information on health hazards, specific physical characteristics of chemicals, protective measures, and precautions for the safe handling, use, and storage of each chemical.

### Hazardous chemicals can make you sick

Janitors, custodians, and other cleaning workers are potentially exposed to a wide variety of hazardous chemicals. Many traditional cleaning products (e.g., glass cleaner, floor finish, metal polish, toilet bowl cleaner, disinfectants) contain solvents that can be harmful to the body. Those solvents pose many hazards: from mild health effects, such as skin and eye irritation, to long-term diseases, such as heart and kidney failure, sterility, or cancer. Many chemicals can cause injuries or illnesses, including rashes, burns, asthma, and other breathing problems.



Employees work with different types of cleaning products.



Chemical cabinet

### Know how chemicals enter and affect the body

Each chemical has a certain way of entering the body. A chemical may enter the body through the:

- **Nose**
- **Skin and eye contact**
- **Mouth**

#### Nose

The most common way chemicals enter the human body is by breathing them in. Harmful dusts, mists, gases, or vapors can irritate the nose, throat, and respiratory tract. Chemicals can also dissolve and enter the bloodstream, causing damage to other parts of the body. The organs that are most commonly affected by chemicals are the liver, kidneys, and heart. The nervous system and reproductive system are also attacked. Some signs or symptoms of chemical overexposure include dizziness, headache, nausea, tiredness, and irritability. If you think that you have been overexposed to chemicals, get to fresh air and seek medical attention.

#### Skin contact

Chemical contact with the skin may cause burning, redness, or irritation. Some chemicals can dissolve the natural protective oils in the skin, causing the skin to become dry and cracked, and make it easier for chemicals to enter the bloodstream. However, the skin does not need to be broken for some chemicals to enter the bloodstream. If you get any chemicals on your skin or clothes, wash the exposed skin with plenty of soap and water and seek medical attention.

#### Eye contact

If a chemical gets into the eyes, it may cause burning, redness, or irritation. Some corrosive products may permanently damage the eye and can cause blindness. You will need to flush your eyes with water for about 15 minutes and seek medical attention.

#### Mouth

The least common source of exposure is when chemicals are accidentally swallowed. A chemical left on the hands prior to eating is a common way for hazardous chemicals to enter the body. Dusts, mists, or small particles may also drop on a sandwich or into a drink. The worker may not realize contamination has occurred. Food and beverages should never be stored or consumed in an area where there are hazardous chemicals. Make sure to wash your hands thoroughly before eating, drinking, or smoking.



**Eyewash station**

You must be trained on how to protect yourself from the hazardous chemicals you work with. Training must include:

- Appropriate work practices
- Personal protective equipment (PPE)
- Emergency procedures



Study the Material Safety Data Sheets.



Don't mix chemicals.

### Appropriate Work Practices

To avoid exposure, learn how to handle and use chemicals safely. Always be sure to follow the directions for proper use and never mix incompatible products. For example, one of the most common hazards is accidentally mixing household bleach with an ammonia cleaning product. This mixture results in a toxic gas that irritates the lungs.

- To prevent the buildup of hazardous concentrations, use products as directed and use them for the right application.
- Follow the advice in the Material Safety Data Sheet (MSDS) and instructions on the container label. Place appropriate hazard warnings on all containers.
- Dilute products, if recommended, to reduce the concentration of chemicals.
- Store chemicals separately from one another.



Label all containers.

## Personal Protective Equipment (PPE)

Use the appropriate gloves, a rubber apron, or other protective clothing if prolonged or repeated skin contact may occur. Use safety glasses with side shields, splash goggles, or a face shield when eye or face contact may occur. Also, use nonslip safety shoes when working in a wet or slippery environment. Make sure the PPE is maintained in good condition. For more information, refer to Fact Sheet #15, *Using Personal Protective Equipment*.

The employer has the responsibility to provide the proper PPE at no cost to employees.

## Emergency Procedures

Even though a mishap or injury may never have occurred at your workplace, you still need to prepare and plan for emergencies. If you or a coworker gets hurt or injured, you will need to know the first aid procedures (first aid kits, eye wash station, etc.) and the emergency contact phone numbers.

Contact your supervisor when you encounter an unknown chemical spill. Qualified personnel with specialized training should be the only ones allowed to clean up chemical spills. There should be a spill kit designed specifically for your facility. Spill kits may include:

- Materials to contain liquids
- An absorbent material
- A neutralizing agent
- Waste containers
- A brush and scoop
- Personal protective equipment (PPE)
- Or other products



A well-stocked first aid kit

### Other Safe Work Practices

Other ways to reduce the chances of exposure to hazardous chemicals include:

- Provide a dispensing station that automatically dilutes and mixes the right amount of products for the job.
- Substitute with less toxic materials. Buy green seal certified products or environmentally safe products having a reduced amount of harmful solvents.
- To reduce airborne contaminants, avoid aerosol spray products.
- Wash hands thoroughly before eating, drinking, or smoking.



Dispensing station

### Resources

Fact sheet 14 does not take the place of a well-developed hazard communication program. For more details on developing a hazard communication program, refer to the *California Code of Regulations, Title 8 (T8 CCR), Section 5194, "Hazard Communication."* The references listed below can also help you develop an understanding of hazardous chemicals.

*Cleaning for Health: Products and Practices for Safer Indoor Environment.* New York: INFORM, Inc., 2002. This document is available online at [www.informinc.org/cleanforhealth.php](http://www.informinc.org/cleanforhealth.php) or may be obtained by calling (212) 361-2400, ext. 240.

*Guide to the California Hazard Communication Regulation.* Sacramento: California Department of Industrial Relations, 2002. This document is available online at <http://www.dir.ca.gov/dosh/puborder.asp> or may be obtained by calling (916) 574-2528.

*Understanding Toxic Substances, An Introduction to Chemical Hazards in the Workplace.* Hazard Evaluation System and Information Service (HESIS). Oakland: California Department of Health Services, 1996. This document is available online at [www.dhs.ca.gov/ohb/HESIS/hesispub.htm](http://www.dhs.ca.gov/ohb/HESIS/hesispub.htm) or by calling (510) 622-4328.







Personal protective equipment (PPE) is used to protect workers from workplace hazards. Janitors and custodians encounter different types of hazards at work:

- **Physical hazards**, including things like cuts from a sharp object or slipping and falling on a wet floor
- **Health hazards**, including the breathing of toxic materials or skin contact with strong cleaning products



Get training on the use of PPE.

**Note:** Know the hazards at your workplace to select the right protective equipment. Before wearing any type of PPE, make sure you are properly trained.

The first step in ensuring your safety is by using less toxic materials to reduce workplace hazards. Your employer is required to provide you with PPE, if needed. Make sure that you use PPE correctly, that it fits properly, and that you always maintain it in good condition.

Personal protective equipment includes safety glasses, goggles, face shields, gloves, aprons, safety shoes, or boots. For some tasks you may need respiratory protection, which requires specialized procedures and training. (For further guidance on respiratory protection, refer to the Cal/OSHA publication, *Respiratory Protection in the Workplace: A Practical Guide for Small-Business Employers*.)

**Eye Protection**—Safety glasses, goggles, and face shields protect the eyes from flying objects, impact hazards, or chemical exposures. Safety glasses and goggles should fit comfortably and allow clear vision. Goggles should be worn over your own glasses.

Always wear eye protection (splashproof safety goggles or a face shield) when using hazardous chemicals.



Safety goggles



Safety glasses



Face shield

**Hand Protection**—Gloves can protect the hands from injury. There are different types of gloves made of materials to protect hands from chemicals, biological agents, cuts or abrasions, or temperature extremes. Gloves for protection from chemicals are usually made of butyl rubber, neoprene, nitrile, or natural rubber. Check with the MSDS to know the type of glove that is recommended.



Double-coated gloves



Rubber gloves

Some gloves are double coated for increased protection. For example, a natural rubber glove coated with a second layer of neoprene will protect from a greater number of chemicals.

Gloves that are too large may make it harder to grip objects. If gloves are too small, they may impair circulation to the hands. Your employer should provide gloves in different sizes to ensure that each employee can select a pair that fits properly. Some people, however, may have an allergic reaction to gloves made of latex or natural rubber.

**Safety Shoes and Boots**—Proper footwear can help prevent slips on wet floors. Some rubber sole shoes are designed just for working in a wet environment. Antifatigue soles and insoles can also reduce worker fatigue after long hours of standing on hard surfaces. Other safety shoes and boots (steel toed) are designed to protect the feet from hard impacts.



Rubber boots help to reduce slips on wet floors.

# Using Ergonomics

This section addresses some of the most common tasks. Each fact sheet is designed to address one particular task and provide improved ways of accomplishing it.

16. Moving Barrels/Carts
17. Emptying Office Trash Cans
18. Lifting Garbage from a Barrel
19. Dumping Trash Bags
20. Moving Furniture
21. Lifting and Moving
22. Carrying Buckets
23. Mopping
24. Wringing Mops
25. Emptying Mop Buckets
26. Sweeping
27. Scrubbing
28. Cleaning Tile Walls
29. Making Beds
30. Handling Soiled Linens
31. High Dusting
32. Wiping and Dusting
33. Taking Breaks





The more supplies and tools loaded on the barrel or cart, the greater the force needed to push it, particularly on carpet. Materials unevenly distributed around the barrel or cart also contribute to instability. Running the barrel over uneven surfaces, such as elevator gaps or over thresholds, can further cause the barrel to tip over.



A rim caddy allows even distribution of supplies.



Beware of uneven surfaces.

### *Tips and improvement ideas*

- Stock the cart or barrel only with materials you will need.
- Set up a caddy and a caddy apron at exactly opposite sides of the barrel. Weight is more evenly distributed, and the barrel is less likely to tip over.
- Place the most frequently used products/tools closer to you.
- Pay attention to uneven surfaces. With a firm grip, push the barrel slowly to prevent it from tipping.



Slow down when rolling over thresholds.

***If the barrel tips, let go of it!  
Don't try to stop it as you can strain yourself.***



Don't assume that trash cans weigh about the same each time. Injuries can occur when lifting an unexpectedly heavy trash can.



Do not stoop over to reline trash cans.



Bend your knees and keep your back straight.



Remain upright while relining trash cans.

### *Tips and improvement ideas*

- Look over the contents of trash cans.
- Always wear gloves when emptying trash cans.
- Check the weight of the trash can by tilting or tapping it.
- Use proper lifting techniques. Bend your knees and keep your back straight as you pick up or lower trash cans.
- Firmly grasp the lip around the rim of the can. Use two hands if the can is heavy. Avoid bending your wrists.
- Position the trash can on the barrel rim for emptying the contents and replacing the lining. This position allows for good body posture. Keep fingers away from falling objects.
- Whenever possible, alternate hands to pick up and lower trash cans.
- Be sure not to place your hand at the bottom of the liner bag since there might be sharp points.
- Empty trash cans frequently to avoid accumulating heavy loads.
- Dispose of glass in a separate container to avoid the risks of cuts or lacerations.



Dispose of glass properly.





Heavy lifting again and again becomes even more difficult when the contents of the bag have been pushed down to avoid extra trips to the dumpster. A strong suction is generated by the vacuum of air when a filled garbage bag is lifted from a barrel. Extra force is then needed to pull the bag out.

### *Tips and improvement ideas*

- Do not overfill or compact trash in the barrel.
- Prevent overfilled barrels. Empty the barrels when they become half full.

### *Before pulling the bag:*

- Do not dig in the garbage.
- Look for any sharp or protruding objects.
- Check the load and get help if it is too heavy or awkward.

### *Then:*

- Tie the bag.
- Remember to bend your knees and keep the load close to your body. Keep your back straight and do not twist.

### *To make the lift easier:*

- Use a barrel with lift vents on the sides. This design reduces suction.
- Drill holes around the walls of the barrel close to the bottom to reduce suction.
- Ask for help especially when the bag is overfilled and too heavy.



Use a barrel with holes.



Use a barrel designed with lift vents.



Use proper lifting techniques. Keep the load close to your body.



The dumping of heavy trash bags requires high force again and again. Awkward postures are often involved.

### Tips and improvement ideas

- Wear gloves at all times.
- Roll barrels and other equipment containing trash bags as close as possible to the dumpster.
- If the bag is too heavy, get help.
- With feet and body facing the dumpster, step closer and toss the bag forward into the dumpster. Avoid twisting. Do not toss sideways.
- Use a step-up platform next to the dumpster to empty trash bags. It will reduce lifting above shoulder height.
- Place the dumpster next to the loading dock, if one is available.



This cart forces employee to reach and work harder.



Use equipment to move trash bags closer to dumpster.



Use proper lifting techniques.



Face the dumpster, step closer and toss the bag straight ahead.



Drop trash bags into the dumpster.

## 19 Dumping Trash Bags (cont.)

- Use a mechanized trash dumper, if available. It saves time and effort and increases efficiency. Mechanized dumping may be done by a:
  - Portable trash dumper
  - Hydraulic lift truck
  - Stationary tilt truck/hopper dumper



Portable trash dumper - automated or hand crank style



A hydraulic pump operated by a foot pedal raises the compacted garbage to waist height.



Remove the container from the compacted garbage.



Slide the compacted trash into the dumpster located next to the loading dock.



Stationary tilt truck/hopper dumper. Trash is dumped at the push of a button.



Moving and rearranging heavy pieces of furniture involves forceful exertions, and it is often done by a single worker.

### *Tips and improvement ideas*

- Use equipment and devices to help move furniture.
- Call on a team, if available, dedicated to moving furniture.



Use spring-loaded tables on wheels.



Use a harness system.



Use rolling carts to move stacks of chairs and tables.



Devices for reducing friction help to easily move heavy furnishings over vinyl, tile, and carpet.



Lifting and carrying of heavy loads again and again may lead to a serious back injury.

### *Tips and improvement ideas*

- Check the weight to be sure that you are comfortable with the lift. *Do not lift anything you think is too heavy!*
- Use handles, handholds, or cutouts, if available.
- Use carts with large wheels. A larger wheel rolls easily and requires less force over door thresholds, elevator gaps, etc. Small wheels get caught on holes and other floor irregularities.
- Bend your knees and, with your back straight, lift the load with a good grip, and keep the load close to the body. *Do not* lift and twist.
- Get assistance.
  - Plan the lift and communicate with your partner.
  - Make sure team members understand their role.
  - Use lift assist equipment or devices whenever possible.



Get help and coordinate the move.



Use an electric pallet jack.



Use a convertible three-way dolly.





Some jobs require lifting and carrying heavy buckets. With prolonged use, a thin handle causes significant contact pressure on the hand.

### *Tips and improvement ideas*

- Increase the diameter of the handle by adding padding or by attaching a thicker handle.
- With a thicker bucket handle, you will have greater grip strength and feel less pressure on your hand.
- Alternate hands.
- Fill the bucket taking into account:
  - The weight of the product. Do not overfill the bucket. Keep it light enough to carry comfortably.
  - Your physical strength
  - Carrying distance
  - Condition of the floor, such as uneven, slippery, or cluttered
  - Characteristics of the floor, such as steps or slopes
- Mark buckets with a 2/3 fill line.
- Consider dividing the contents equally into two buckets. Carry one bucket in each hand.



Avoid heavy compression on your hand by padding the handle or using a handle with a bigger diameter.





A worker who cleans floors by hand uses rapid and repetitive hand movements while kneeling, crouching, or crawling. There is also sustained bending of the upper body and neck.

### *Tips and improvement ideas*

- Place a “Caution: Wet Floor” sign in the area.
- Use knee pads if you have to kneel.
- Select mop heads that do not readily shed loose threads.
- Consider smaller mop heads. They are lighter when wet, and easier to squeeze.
- Adjust the length of telescopic mop handles to the height of your forehead to reduce bending.
- Avoid extreme reaches to the right and left and twisting.
- Avoid excessive bending of wrists.
- Alternate mopping styles. Swing mop in a horizontal figure 8 direction.
- Pad the handle or use a padded mop handle to cushion and improve your grip.



**Pad the handle.**



**Avoid extreme reaches to the right and left.**



**Stand upright and keep elbows close to your body.**



Alternate right and left hands at the top of the mop handle.



Use a mop bucket with separate compartments for clean and dirty water.

- Use microfiber mops if they are appropriate to use. They offer these advantages:
  - Soiled mops are detachable and can be laundered.
  - The mop head pivots and is easier to maneuver.
  - No wringing is required.
  - Floors dry quickly.
  - The mop itself is lighter so mopping is faster.



Use a portable hose with an adapter to fill the mop bucket at almost any sink. It saves trips and time. Be sure not to overfill the bucket.

Typically, janitors bend at the waist and have to push the lever hard to squeeze the mop. This action causes intense contact pressure over the hand and wrist. It also adds strain to the lower back.



### *Tips and improvement ideas*

- Bend your knees and keep your back straight as you push the mop wringer handle down.
- Use a mop bucket raised off the floor to reduce the bending and force needed to wring the water out.
- While squeezing the mop, place your foot in front of the wheel to prevent the bucket from moving.



A wide base adds stability to a tall mop bucket.



Certain types of microfiber mops require much less force to squeeze the mop dry.



Emptying mop buckets involves lifting of heavy buckets, bending at the waist, awkward arm and hand postures, carrying a heavy load, and holding it while dumping the dirty water.



Sinks mounted on the ground instead of waist height allow the worker to avoid heavy lifting.



Use mop buckets with a drain opening.

#### *Tips and improvement ideas*

- Use the smallest amount of cleaning solution possible.
- With bent knees, lift the bucket keeping it close to your body. Keep your back straight and do not twist.
- Rest the bucket on the edge of the sink while dumping water.
- If possible, arrange for sinks mounted on the floor at the start of new construction or for a remodel.



Dump water while resting the bucket on the sink.



Bend your knees and keep your back straight while lifting the bucket.





Sweeping floors may involve awkward positions of wrists and prolonged contact pressure on hands. In addition, the back and neck are often in an awkward forward bent posture.

### *Tips and improvement ideas*

- Do not bend your back. Use lightweight brooms, standup dustpans, and lobby brooms. They allow you to remain upright. If needed, bend your knees and not your back.
- Wear knee pads and kneel down to get closer to the work.
- Add a foam sleeve over the broom handle for a more comfortable and better grip.



Avoid bending or twisting your wrists.



Keep wrists straight.



Get closer to the work.



Pad the broom handle.



Avoid bending your back. Remain upright and keep elbows close to your body. A curved handle allows a straight wrist.





Cleaning by hand while kneeling is forceful work done again and again with awkward arm and hand movements. The trunk of the body and neck are bent and are often in fixed positions.



### *Tips and improvement ideas*

- Use a long-handled scrub brush.
- Avoid extreme bending of wrists and hands: up and down and to the sides.
- Alternate tasks between right and left hands.
- Get closer to the work. Walking as you scrub the tub or floor will reduce excessive stretching and reaching.



Use adjustable long handled scrubbers with pivoting heads. They allow workers to remain upright . Bending, extended reaches, and twisting are minimized.



Use tools with padded nonslip handles for better grip and greater efficiency.



Use a power scrubber.



Use knee pads to reduce prolonged contact stress when kneeling or crawling.



Housekeepers often step into the tub, overreaching and twisting to wash and wipe the tile around the bathtub. Ladders are frequently used and increase the risk of slips and falls.



Avoid stepping into the tub and overreaching.

#### *Tips and improvement ideas*

- Do not step into the tub or use a ladder.
- Adjust the length of a telescopic handle to minimize awkward bending and overreaching.
- Stand upright and use a lightweight long-handled mop or squeegee.
- Switch from the right to the left hand at the top of the pole.
- Use your legs, not just your arms, to generate force.



Using a long handled tool allows for efficiency and improved body posture.



Attach a long-handled pole to a mop or a squeegee.





Housekeepers forcefully lift and hold each mattress corner with one hand and tuck in the bedsheet with the other. This work is done again and again while the worker is in awkward body postures such as forward bending and twisting.



Prolonged and repetitive bending is hard on your back.

### *Tips and improvement ideas*

- Position the bed away from the wall, if possible.
- In health care settings, be sure to raise the bed before making it.
- Do not stretch to overreach. Walk around the bed to get as close as possible to the work.
- Use a fitted bottom bedsheet over the mattress.
- Do not stoop or bend your back. Instead, bend your knees and crouch briefly while pulling the corner of the bedsheet over the mattress. Also, bend your knees to minimize bending of your back as you lift the mattress corner and tuck in the top bedsheet.
- Purchase a lighter-weight mattress, if feasible.
- Assign a team of two people to make beds.



Bend your knees and crouch as you tuck in the bedsheet.



Use fitted bedsheets.





Repeated lifting and carrying of heavy bags full of soiled linens often requires forceful exertions and awkward postures.

**Tips and improvement ideas**

- Use hampers on wheels to roll the cart of linens directly to the laundry chute.
- Avoid awkward body postures. Clear the path to make room for maneuvering the cart and handling the bag of linens.
- Remove the bags by sliding them off the side of the cart frame.
- Prevent overfilled bags. Establish a policy that a new bag must be used when the existing one reaches an agreed-on level of fullness (for example, half full).



Start a new linen bag. Do not overfill.

*It is safer to empty half-full laundry bags more often than to handle very heavy, overfilled bags of soiled linens.*



Roll the hamper.



Slide the linen bag off the cart.



Dispose of bag down the chute.



Reaching up while holding a duster for long periods of time requires awkward and fixed positions of the arms, shoulders, and neck. This task can lead to pain and stiffness in the neck, shoulders, arms, and upper back.

### *Tips and improvement ideas*

- Wear face/eye protection.
- Use a lightweight telescopic handle. There is no need to stand on tiptoes or use ladders.
- Lengthen the duster handle to keep the elbows close to the body and minimize overreaches.
- Stand at an angle and not directly under the dusting area.
- Switch your right and left hands at the end of the pole handle.
- Consider a backpack-style vacuum cleaner with extensions.
- Limit the time spent on over-the-shoulder work activities.
- Alternate high dusting with work that does not require reaching high.
- Be sure to allow for more frequent breaks.



Standing directly under the area forces the neck to tilt back.



Standing at an angle allows improved body posture.



Alternate left and right hands at the top of the handle.



A backpack style vacuum cleaner also allows improved body posture.



Extending the shoulder and arm to wipe forcefully with the whole hand for long periods of time is tiring. There is also twisting and bending of the wrist.

### *Tips and improvement ideas*

- Fold and scrunch a towel. Hold it as you would hold an eraser. This position helps to keep your wrist straight.
- Avoid bending or twisting hands and wrists.
- Alternate right and left hands. Switch often.
- Use a sponge, duster, or other extension tool.
- Keep elbows close to the body as you work.
- Walk and get closer to the work to avoid stretching and overreaching.



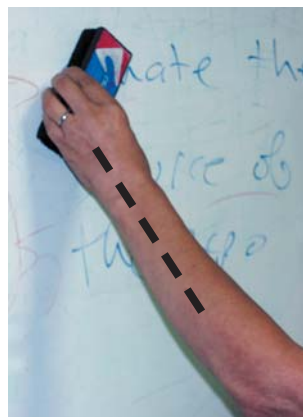
Avoid extending arm and bending wrist.



Use a good body posture with safe arm, wrist, and hand position



Hold the dusting cloth as you would hold an eraser.



Keeping a straight wrist prevents injuries.



Working intensely and rapidly while in awkward postures, exerting force, and struggling to keep up with work are factors often associated with an increased risk of injury.

### *Tips and improvement ideas*

- Do not skip your rest breaks. Take mandatory rest breaks every two hours. Breaks allow rest and recovery from physical exertion.
- Taking several rest breaks is better than taking one long lunch break.
- Learn to work using your right and left hands. Alternate between left and right hands whenever possible.
- It is better to rest tired muscles by changing to another task that uses different muscle groups.
- Alternate heavy jobs with lighter ones whenever possible.
- Stretch at the beginning and throughout your workday.



Alternate hands when holding the handle.



Alternate hands often.





# Acknowledgments

## Writers, Editors, and Photographers

**Zin Cheung**, M.S., CIE Certified Industrial Ergonomist, Associate Industrial Hygienist, Research and Education Unit, Cal/OSHA Consultation Service, Sacramento, California

**Russell Denney**, Associate Industrial Hygienist, Research and Education Unit, Cal/OSHA Consultation Service, Sacramento, California

The authors thank the following persons and organizations for their review, comments, and support in the development of this document:

## Editorial and Technical Review

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

**Jackie Chan**, M.P.H., Research Scientist, Occupational Health Branch, California Department of Health Services, Oakland, California

**Mariana Ciocan**, RPT, Physical Therapist, Advanced Medical Center and Physical Rehabilitation, Sacramento, California

**Debbie Coughlin**, PT, CEES, Ergonomic Specialist, Catholic Healthcare West, Sacramento, California

**Richard DaRosa**, M.S., Senior Industrial Hygienist, Cal/OSHA Consultation Service, Sacramento, California

**Mario Feletto**, M.S., M.P.H., Area Manager, Research and Education Unit, Cal/OSHA Consultation Service, Sacramento, California

**Julio C. Gaitan**, M.S., Associate Industrial Hygienist, Asbestos Consultant, Trainers' Approval and Certification Unit, Division of Occupational Safety and Health, Sacramento, California

**Lilia Garcia**, Executive Director, Maintenance Cooperation Trust Fund, Los Angeles, California

**John Howard**, M.D., M.P.H., J.D., LL.M., Director, National Institute for Occupational Safety and Health, Washington, D.C.

**Nan Lashuay**, Director, Community Occupational Health Project, University of California, San Francisco

**Pamela Tau Lee**, Labor Services Coordinator, Labor Occupational Health Program, School of Public Health, University of California, Berkeley

**Linda Lopez**, Manager of Custodial Services, Elk Grove Unified School District, Elk Grove, California

**Dave Mattos**, Principal Supervisor, Custodial Division, University of California, Davis

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

**Alison Heller-Ono**, M.S., PT, CIE, CMC, CEO of Worksite International, Monterey, California

**Alicia Perez**, PT, CEES, Ergonomics Specialist, The Physiotherapy Advantage, Oakland, California

**Ann B. Pudoff**, CIE, CLS, Health and Safety/Ergonomics Specialist, M.O.S.T. Consulting, Sacramento, California

**Kristy Schultz**, M.S., CIE, Associate Ergonomics Specialist, Research and Education Unit, Cal/OSHA Consultation Service, Sacramento, California

**Suzanne Teran**, M.P.H., Bilingual Training Coordinator, Labor Occupational Health Program, School of Public Health, University of California, Berkeley

**Fran Hurley-Wagner**, M.S., C.R.C., Certified Industrial Ergonomist, First Response Ergonomics, Sacramento, California

# Acknowledgments

**Alison Ascher-Webber**, Executive Director, Leadership Training & Education Fund, SEIU Local 1877, Oakland, California

**Steven Yuen**, Instructor, City College of San Francisco, School of Applied Science and Technology, Custodial Training Program, San Francisco, California

## Layout and Design

**Ken Jackson**, Graphic Designer, Link One Professionals, LLC, Sacramento, California

## Cooperators for Onsite Development and Research

*All in One Building Maintenance*, Hayward, California

**Michael L. Matawaran**, General Manager

*Clean System US*, San Rafael, California

**Rich Milke**, Managing Director

*Crothall Healthcare Inc., Eden Medical Center*, Castro Valley, California

**Raymond Fischbach**, Director, Environmental Services

*Custodial Division, University of California*, Davis

**Chet Biddle**, Principal Supervisor, Night Operations

**Clarence Jackson**, Manager

**Dave Mattos**, Principal Supervisor, Day Operations

*Delta Industries*, King of Prussia, Pennsylvania

**George Johnson**, Sales Representative

*Eagle Grip Handle Co.*, Lincoln, California

**Bob Bunyard**

**Eleina Ortiz**, Housekeeper, Reno, Nevada

*Elk Grove Unified School District*, Elk Grove, California

**Linda Lopez**, Manager of Custodial Services

*Grip System*, Stockton, California

**Robert Ripoyla**, Owner

*Gripworks*, Arnold, Missouri

**Andy Belval**, National Sales Manager

*Nelson and Associates*, South San Francisco, California

**Steve Nelson**, President

*Pro Team, Inc., The Vacuum Company*, Boise, Idaho

*Rubbermaid Commercial Products*, Winchester, Virginia

**David Mathis**,

Regional Account Manager

*SEIU Local 1877*, Oakland, California

**Alison Ascher-Webber**, Executive Director, Leadership Training & Education Fund

*Simtec, Co. EZ Moves ® Furniture Slides*, Irwin, Pennsylvania

**Candace Edwards-Holsing**, Director of Marketing/Sales

*Super 8 Motel*, Vacaville, California

**Karen Alford**, General Manager

*Vestil Manufacturing*, Angola, Indiana

**Josh Rykard**, Sales Engineer

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







# Cal/OSHA Consultation Programs

Toll-free number: 1-800-963-9424

Internet: [www.dir.ca.gov](http://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

● **Research and Education Unit**  
Sacramento, CA 95825  
(916) 574-2528



State of California  
Arnold Schwarzenegger, Governor  
John Rea  
Director of Industrial Relations

