Acknowledgements

The California Childcare Health Program is administered by the University of California, San Francisco School of Nursing, Department of Family Health Care Nursing.

We wish to credit the following people for their contributions of time and expertise to the development and review of this curriculum since 2000. The names are listed in alphabetical order:

Main Contributors
Abbey Alkon, RN, PhD
Jane Bernzweig, PhD
Lynda Boyer-Chu, RN, MPH
Judy Calder, RN, MS
Lyn Dailey, RN, PHN
Robert Frank, MS
Lauren Heim Goldstein, PhD
Gail D. Gonzalez, RN
Susan Jensen, RN, MSN, PNP
Judith Kunitz, MA
Mardi Lucich, MA
Cheryl Oku, BA
Pamm Shaw, MS, EdD
Marsha Sherman, MA, MFCC
Eileen Walsh, RN, MPH
Sharon Douglass Ware, RN, EdD
Rahman Zamani, MD, MPH

Additional Contributors
Robert Bates, Vella Black-Roberts, Judy Blanding, Terry Holybee, Karen Sokal-Gutierrez

Outside Reviewers, 2003 Edition
Jan Gross, RN, BSN, Greenbank, WA
Jacqueline Quirk, RN, BSN, Chapel Hill, NC
Angelique M. White, RNc, MA, MN, CNS, New Orleans, LA

CCHP Staff
Ellen Bepp, Robin Calo, Catherine Cao, Sara Evinger, Joanna Farrer, Krishna Gopalan, Maleya Joseph, Cathy Miller, Dara Nelson, Bobbie Rose, Griselda Thomas, Kim To, Mimi Wolff

Graphic Designers

We also want to thank the staff and Advisory Committee members of the California Childcare Health Program for their support and contributions.

California Childcare Health Program
The mission of the California Childcare Health Program is to improve the quality of child care by initiating and strengthening linkages between the health, safety and child care communities and the families they serve.

Portions of this curriculum were adapted from the training modules of the National Training Institute for Child Care Health Consultants, North Carolina Department of Maternal and Child Health, The University of North Carolina at Chapel Hill, 2004-2005.

Funded by First 5 California with additional support from the California Department of Education Child Development Division and Federal Maternal and Child Health Bureau.
LEARNING OBJECTIVES

To describe the major occupational hazards in early care and education (ECE) programs.

To develop skills to implement measures which prevent and manage occupational hazards.

To identify opportunities that promote staff health in the areas of nutrition and physical fitness.

To describe three ways a Child Care Health Consultant (CCHC) can assist ECE programs in developing and implementing staff health and safety policies.

To identify staff health and safety resources available to assist and support ECE providers and families.

WHY IS STAFF HEALTH IMPORTANT?

ECE professionals are exposed to a wide variety of job-specific health and safety risks including: infectious disease, musculoskeletal injuries, falls, environmental hazards, and stress. The health of ECE professionals impacts the quality of care they are able to provide to children. Many health and safety policies in ECE programs protect children and adults, however, some safety issues specific to adult caregivers are often neglected. It is important for ECE providers to be aware of the OSHA regulations.
WHAT THE CCHC NEEDS TO KNOW

The CCHC needs to be aware of the many occupational health hazards that ECE professionals are exposed to. These hazards are outlined in *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs, Second Edition* (CFOC) (American Academy of Pediatrics [AAP], American Public Health Association, & National Resource Center for Health and Safety in Child Care, 2002) Appendix B and are reviewed here (see Handout: Major Occupational Health Hazards).

Infectious Diseases

ECE professionals acquire infectious diseases at a higher rate than adults who have less contact with children (Holmes, Morrow, & Pickering, 1996; Reves & Pickering, 1992). The increased risk for ECE providers is attributed to the higher incidence of disease in the population they work with (young children) and to children’s greater propensity for transmitting diseases. Research examining the health effects of out-of-home child care has produced convincing evidence that children attending ECE programs have a higher incidence of common infectious diseases, and more severe diseases, than children reared in their own homes (Wald, Guerra, & Byers, 1991; Black et al., 1994; Holmes et al., 1996). Some of the diseases providers may contract from children are more serious when acquired by adults (e.g., Hepatitis A), and others may have severe consequences for staff with compromised immune systems or who are pregnant (e.g., cytomegalovirus [CMV]).

Patterns of Disease

It is critical for CCHCs and ECE staff to be aware of the different patterns of infectious diseases that may occur in ECE programs. Respiratory and gastrointestinal tract infections are the most common illnesses reported among children in ECE programs, and researchers believe these infections represent the bulk of illnesses transmitted from children to ECE staff (Cordell, 2001; Holmes et al., 1996).

Not all diseases produce the same symptomatic response from staff and children alike. In some cases, such as Hepatitis A, children may be infected but show no symptoms, while staff manifest a more serious response. Other diseases, such as *H. influenzae* type b, may produce no apparent response in staff but a more severe response in children. Some diseases, such as CMV, may produce a mild or asymptomatic response in both the children and staff. However, CMV seriously affects the fetal development in previously uninfected pregnant staff (Adler, 1989).

Currently, the infections that show a relatively high frequency in ECE programs and pose the most severe outcomes for staff are CMV, Hepatitis A, varicella-zoster (chickenpox) and Parvovirus B19 (Adler, 1989; Bale, 1999; CDC, 2001a–c; CDC, 2002; Galil et al., 2002; Pass, 1991; Pass, Hutto, Lyon, & Cloud, 1990). In addition, bloodborne infections (Hepatitis B, Hepatitis C and HIV), although infrequent in ECE programs, also have the potential for severe outcomes and are considered occupational health hazards for ECE staff.

Preventive Measures

**Staff Health Assessment and Staff Immunization**

All ECE staff should have a health appraisal conducted by a health care professional before their first day of employment in the ECE program (Aronson, 2002). The exam should include a health history, physical exam, dental exam, vision and hearing screening, TB screening, review of immune status to vaccine preventable diseases, review of occupational health concerns based on essential functions of the job, an assessment of risk from exposure to common childhood infections such as parovirus, CMV, chickenpox, and conditions that may require accommodation. These requirements are well described in CFOC (AAP et al., 2002, Standard 1.045); Appendix E provides a model health assessment form (see Handout: Child Care Health Assessment).

**Immunization.** The CDC (2003b) reports that the childhood immunization program has substantially
reduced the incidence of vaccine-preventable disease among children, but vaccine-preventable diseases such as Hepatitis A, Hepatitis B, influenza, and pneumococcal infections continue to occur among adults. In February 2002, the Advisory Committee on Immunization Practices approved a routine vaccination 2003-2004 schedule for persons aged 19 and older. The most current adult immunization schedule can be found at www.dhs.ca.gov/ps/dcdc/izgroup (Also see Handout: Recommended Adult Immunization Schedule). In addition, ECE professionals are encouraged to receive annual influenza vaccines to protect themselves, and to reduce the transmission of the flu to young children and families (Handout: Health and Safety Notes: Influenza and You; Handout: Health and Safety Notes: Vaccines are not just for children).

Hygienic procedures. To reduce the spread of infectious diseases in ECE programs, hand washing, gloving, and cleaning and sanitation of the environment and toys are necessities.

Exclusion criteria. To prevent the spread of infectious disease, exclusion policies for ECE staff should be enforced. The CFOC standards (AAP et al., 2002) list 18 conditions that should result in the temporary exclusion of a staff member for reasons of preventing the spread of illness (AAP et al., 2002, Standard 3.069). In a survey of ECE staff, Gratz & Claffey (1996) found that 87 percent of staff reported working when ill. See Handout: Staff Illness and Exclusion Policy for more information.

Notice of exposure to disease. ECE providers should provide current disease fact sheets to families and staff during disease outbreaks or exposure. California Childcare Health Program (CCHP) Disease Fact Sheets provide basic information on diseases, how to prevent the spread, when to seek medical attention and whether the disease affects pregnancy.

Blood exposure prevention plan. The OSHA Bloodborne Pathogen standard 1910.1030 requires that any workplace that exposes employees to bloodborne pathogens must have a written exposure prevention plan that explains the requirements of the standard and addresses in detail how the standard will be implemented in that specific workplace. While general guidelines may exist, each plan must be tailored to the unique characteristics of its own setting.

Pregnant staff. ECE staff who are pregnant are especially vulnerable to infectious diseases (Gratz, 1994; Gratz & Boulton, 1994). Staff who are pregnant or staff who are considering pregnancy should consult with their health care providers for advice about immunizations and other measures to promote a healthy pregnancy while working in ECE programs.

Musculoskeletal Injuries

Musculoskeletal injuries involve the supporting structures of the anatomy such as spinal discs, nerves, tendons and muscles. Ergonomics, a term that is often confused with musculoskeletal disorders, is the science of “fitting workplace conditions and job demands to the capabilities of the workers” (National Institute for Occupational Safety and Health [NIOSH], 1997b). According to NIOSH, occupations that require “frequent or heavy lifting, pushing, pulling, or carrying of heavy objects” are risk factors for musculoskeletal injury. The risk is serious, affecting 7 percent of the population and accounting for 14 percent of physician visits and 19 percent of hospital stays (NIOSH, 1997b).

Ergonomic analyses of the ECE workplace have identified the following musculoskeletal risk factors to ECE workers: heavy lifting and carrying (for example, lifting children), sitting on the floor or in child-size chairs with insufficient or no back support, kneeling, squatting, and reaching to a variety of heights (NIOSH, 1997b; King, Gratz, Scheuer, & Claffey, 1996). Characteristically, the work-related injuries reported for workers in ECE programs are injuries to the back, upper limbs, neck, and lower limbs (NIOSH, 1997a).

Preventive Measures

Ergonomic experts concur that the best methods for preventing musculoskeletal injuries among ECE staff are:

- education in proper body mechanics to understand the importance of posture in preventing strain on the lower back
- education in proper lifting and carrying techniques
• provision of furniture and fixtures at appropriate adult heights
• regular exercise and stretching for increased strength and flexibility
• maintenance of proper body weight to prevent straining back muscles
• use of proper footwear

(Aronson, 1996; American Academy of Orthopaedic Surgeons [AAOS], 2000; National Association for the Education of Young Children [NAEYC], 1998; King et al., 1996; Gratz & Claffey, 1997; NIOSH, 1997a; Wortman, 2001)

Education in Proper Body Mechanics for the Maintenance of Good Posture

The major principle of body mechanics is to maintain normal spine curves, using a wide base of support, and keeping the center of gravity over the base of support (Gratz & Claffey, 1997). The spine has a natural inward curve in the lower back area and an outward curve in the upper back area. These curves provide the shock absorption, stability and mobility needed for normal biomechanical function and they must be supported and maintained (Wortman, 2001). Good posture at rest, in movement, and at work is the primary mechanism for supporting normal spine curves and reducing the risk of injury. Good posture requires that the ears, shoulders, hips, knees and ankles conform to a vertical straight line. For example, the spine is not supported during sitting or standing in a slumped position (AAOS, 2000). Also, sitting or standing in one position for prolonged periods strains the lower back (Wortman, 2001). To maintain good posture during child care work, experts recommend the following practices:

• When sitting, providers need support for the lower back. Adult-size furniture should be used whenever possible as child furnishings do not provide adequate back support for adults.

• When rising from chairs, especially child-size chairs, providers should assume a squat position keeping the back straight, pelvis level and abdomen tight while using the thigh muscles to raise the body to standing.

(Aronson, 1996; Gratz & Claffey, 1997; AAOS, 2000; Wortman, 2001)

Education in Proper Lifting Techniques

In 1993, the U. S. Occupational Safety and Health Administration (OSHA) reported that in the general workplace, three out of four back injuries involved lifting. In a survey of injuries to ECE workers, Brown & Gerberich (1993) found that injuries involving the back accounted for the greatest proportion of total injuries (34.1 percent), and of that percentage, 49 percent involved lifting a child.

Staff should follow these guidelines to safely lift children:

• Prepare first. Plan ahead and do not rush. For example, lower crib sides before lifting a child from the bed. Be prepared to pick the child up and carry to another location before placing him/her down again.

• Make sure there is enough room to lift safely.

• Give yourself a firm base of support. Stand close to the child with your feet about shoulder width apart and with one foot alongside child and the other slightly back. Reaching out to lift and carry a child or object may hurt your back.
• Squat down, bending at the knees, not the waist. Tighten your stomach muscles to help your back stay in balance while you lift. Try to keep your chin parallel to the floor, and your back as straight as possible. Never lift a child by keeping your legs stiff, while bending over him/her.

• Have a firm grasp of the child before beginning to lift.

• Begin slowly lifting with your legs. Never twist the body during this step. Twisting stresses the muscles, ligaments and joints of the spine. If you must turn while carrying a child, turn using your feet, not your torso.

• Use slow and smooth movements. Hurried, jerky movements can strain the muscles in the back.

• To put the child down again follow the same steps in reverse order. Have a firm grasp on the child, and place your feet shoulders’ width apart, one foot slightly forward of the other. Remember to keep your back as vertical as possible and bend at the knees to lower the child. Extend arms straight down and do not rotate the trunk.

(Sources: AAOS, 2000; American Academy of Family Physicians, 2001; NAEYC, 1997; Gratz & Claffey, 1997; Wortman, 2001; See Handout: CAL-OSHA: Work smarter, not just harder: Think Ergonomics.)

Provision of Adult-Size Furniture and Fixtures

Ergonomic analyses of the ECE setting (King et al., 1996; Gratz & Claffey, 1997) commonly emphasize the lack of adult-size furnishings and adequate work heights for ECE staff. For example, King et al. (1996) observed the following problems in a center they studied:

• Crib designs (especially low playpen type cribs with no side openings). Staff were often forced to bend forward at the waist at a 90 degree angle while keeping the legs straight to lower, lift and adjust children - in violation of proper body mechanics.

• Food items and other supplies stored overhead. Staff was forced to reach and lift above shoulder height.

• Lack of adult chairs. Teachers sat on the floor or used child-size chairs, both of which were considered inadequate for adult back support.

The major injury associated with use of child-size furnishings and inadequate work surface heights is back injury (King et al., 1996).

The CFOC standards (AAP et al., 2002) echo the concerns and recommendations of ergonomic experts for child care workspaces. To reduce risk of staff injuries, especially back injuries, the standards recommend:

• Adult-height changing tables.

• Small, stable stepladders, stairs and similar equipment to enable children to climb to the changing table or other places to which they would otherwise be lifted.

• Convenient equipment for moving children to reduce the necessity of carrying them.

• Adult furniture that eliminates awkward sitting or working positions in all areas where adults work.

(AAP et al., 2002, Standard 5.080)

The Infant/Toddler Environment Rating Scale [ITERS] and the ITERS-Revised [ITERS-R] (Harms, Cryer, & Clifford, 1990, 2003) consider the provision of furniture that promotes self-help skills in children (e.g., steps to the changing table or sink), some adult-size seating for routine care, and comfortable adult seating for working with children essential components of a good or excellent quality ECE program. An excellent rating on the scale of Furniture for Routine Care and Play requires that:

Adult seating should be provided next to child-sized furnishings for care and learning (e.g., diapering/toileting, meals, play activities) so adults do not strain their backs while assisting children (Harms et al., 2003, p.13).

Falls

Only motor-vehicle injuries cause more unintentional deaths than falls. In the year 2000, in the U.S., 16,200 people died as a result of a fall; and one in five hospital
emergency room visits was due to an injury from a fall. While older adults and young children are most susceptible to fall injuries, all age groups are vulnerable (National Safety Council [NSC], 2001). Although there is no indication that the ECE setting entails a greater risk for falls than other workplace settings, the Brown and Gerberich (1993) survey indicated that falls were the second most commonly reported injury for ECE workers, accounting for 21 percent of all injuries.

The NSC distinguishes two types of falls: same-level falls, such as slips and trips, and falls from an elevation such as a ladder or down stairs. Same-level falls are more frequent (60 percent of falls), but are usually less serious than elevated falls (National Agriculture and Safety Database [NASD], 1992; Canadian Centre for Occupational Health and Safety [CCOHS], 1999).

Environmental Hazards: Exposure to Toxic Materials

Like other risks in ECE programs, concerns about environmental hazards have focused almost exclusively on the children in care and virtually ignored the staff. However, in this case, the attention to children may be justified in that they are much more susceptible to environmental hazards than adults. (Detailed information on children’s unique vulnerability to environmental hazards is presented in the CTI CCHC Session 3 Environmental Health module.) Nonetheless, some environmental hazards appear to present greater risks for ECE staff than for the children in their care. The primary environmental risks for staff in ECE programs are: exposure to cleaning products, art materials, lead, mold, mildew, and latex.

Cleaning Products

In ECE programs, staff are exposed to disinfectants and sanitizers. For example, the CFOC standards recommend that:

…countertops, tabletops, floors, door knobs, cabinet handles, food preparation and service areas, phone receivers, handwashing sinks and surrounding counters, faucets, soap dispensers, toilet seats, toilet handles, cubicle handles, toilet bowls, mops and cleaning rags, and any surfaces contaminated with body fluids be sanitized daily and whenever soiled. Utensils, surfaces, and toys that go into the mouth or have been in contact with saliva or other body fluids, changing tables, and potty chairs should be sanitized after each child’s use (AAP et al., 2002, Standard 3.030).

The sanitation solution recommended consists of chlorine bleach (a pesticide) diluted with water. The fact that the sanitation products used are typically common household cleansers may induce staff to overlook their toxicity. Kitchen and laundry disinfectants and sanitizers and products that kill mold and mildew are technically referred to as pesticides. As the Environmental Protection Agency [EPA] points out, pesticides, by definition, are harmful to humans. By their very nature, most pesticides create some risk of harm to humans, animals, or the environment because they are designed to kill or otherwise adversely affect living organisms (EPA, 2002).

Chlorine bleach, for example, is irritating to the skin and can cause serious damage to the eyes. Other common cleaning products, such as furniture cleaners and polishes, floor cleaners, and carpet shampoos and disinfectants contain volatile organic compounds. When inhaled, these compounds may cause ear, nose, and throat irritation and/or headaches. With repeated exposure, loss of coordination, nausea, and damage to the liver, kidneys and central nervous system may result.

Preventive Measures

OSHA Hazard Communication Standard 1910.1200 requires that employees be informed of the identities and hazards of the chemicals they are exposed to when working. This should be done through warning labels on containers, Material Safety Data Sheets, and employee training on the proper handling, usage, storage and transportation of the chemicals. Each ECE program must have an individualized written plan specifying how the preceding requirements will be implemented in the particular facility. By law, all hazardous chemicals must be labeled with a Danger, Warning, or Caution designation to indicate how hazardous the chemical is. Labels must also include the chemical’s ingredients, its flammability, reactivity, procedures for usage, handling, storage and disposal, first
aid instructions, and how to handle leaks and spills.

By law, chemical manufacturers and importers must provide Material Safety Data Sheets (MSDS) for all potentially hazardous materials (see Handout: Material Safety Data Sheet). MSDSs are printed pages that provide critical information about transporting, using, and storing chemicals along with what to do in case of emergencies. They must list the manufacturer’s contact information, the chemical’s ingredients, exposure limits, flammability, health hazards, how to prevent overexposure, symptoms of overexposure, and what to do in case of overexposure and instructions for safe use. An MSDS is specific to a commercial brand name.

Any sanitation materials used in ECE programs, including common cleaning products such as bleach, must be labeled and have an MSDS on file. ECE staff should carefully review labels and MSDSs prior to the use of any cleaning products so they can handle them properly. For example, the MSDS for a product may recommend using safety goggles and/or protective gloves to avoid injury.

All cleaning products should be used only for their intended purpose and according to the manufacturer’s recommendations. For example, when the instructions state, “use with adequate ventilation,” the product should preferably be used outside the building. If used inside, the ventilation should be increased during and after use by opening windows and using exhaust fans (AAP et al., 2002, Standard 5.100).

• ECE staff should limit or avoid use of high solvent cleaners when cleaning carpets.

• Cleaning products should be stored only in their original containers so that safety information is not lost, and kept safely out of reach of children (AAP et al., 2002, Standards 5.011, 5.100).

• By law (OSHA Hazard Communication Standard 1910.1200), the workplace must provide employee training programs regarding the hazards of any chemicals present in the workplace and protective measures.

• Following the Integrated Pest Management approach to pest control, in deciding between two products that produce the same cleaning results, the facility should choose the least toxic alternative. Under the heading, “Health Hazard Rating,” on product labels or MSDSs is a rating from 0–4. The lower the number, the less toxic the product.

Art Materials
ECE staff are more likely to be exposed to hazardous arts and crafts materials than the children in their care. The more toxic art substances (e.g., metals such as lead, mercury, cadmium and cobalt) are characteristic of sophisticated artists’ materials, such as pastels, pigments, inks, glazes, enamels, and solder. These kinds of materials are unlikely to be used by children in ECE programs, but may be used by staff to create posters or art work for room display. Other toxic art materials commonly used by ECE professionals, such as rubber cement, spray-on enamels and spray-fixatives, contain organic solvents, which can cause dizziness and sleepiness in the short term. Chronic low-level exposure to hazardous art materials in adults is associated with allergies, asthma, central and peripheral nerve damage, psychological and behavioral changes, respiratory damage, skin damage and cancer (American Academy of Pediatrics [AAP], 2003).

Preventive Measures
All arts and crafts materials used in ECE programs should bear two labels:

• ASTM D-4236 All arts and crafts materials imported or sold in the United States are required to meet the American Society of Testing Materials D-4236 regulations for acute and chronic health hazards. A statement to this effect must appear on the product label. However, this statement does not necessarily mean that the product is safe, but rather that the product provides information for safe use.

• ACMI The seal of the Art and Craft Materials Institute (ACMI) certifies that an art material can be used without risk of acute or chronic health hazards by anyone, including children and impaired adults (AAP, 2003).

When using solvents such as turpentine or aerosol fixatives, good ventilation is critical. Work using fixatives and brush cleaning should be performed outdoors if possible. Also, solvents should be used sparingly to
reduce exposure (Smith, 2002).

Staff should carefully review the toxicity of all art supplies used in the ECE program and whenever possible substitute less hazardous products (AAP et al., 2002, Standards 5.073, 5.100-5.111). For example, water-based paints can replace paints containing lead, and permanent markers, which may contain toxic solvents, can be replaced with non-toxic markers. Wet, rather than powdered clays, eliminate exposure to silica which is easily inhaled and harmful to the lungs, and new less-toxic brush cleaners are now available to replace those with organic solvents (Smith, 2002).

**Lead, Mold and Mildew**

Particularly in metropolitan areas, ECE programs are often housed in older buildings, probably because such buildings are plentiful and have lower rents. However, if the facility was built before 1978, the paint likely contains lead. Moreover, in most cases, the older the building, the higher the percentage of lead in the paint. Lead paint deteriorates over time due to moisture, normal use, and disturbance during renovation projects. The paint flakes and breaks down into dust that may be so fine it is invisible to normal vision and can be inhaled or ingested. Older buildings also commonly contain asbestos (a fire resistant material) in ceiling or floor tiles, pipe or furnace insulation, or on other surfaces. Over time asbestos can also deteriorate and flake into fine dust, which can be inhaled or ingested. Finally, older buildings are more susceptible to mold and mildew through excessive moisture buildup due to leaks in the roof or basement, drafty windows and doorways, and inefficient ventilation and/or air conditioning systems. All of these characteristics of older buildings pose a risk to ECE staff as well as to the children they care for. For example:

- Even at low concentrations, lead can affect the central nervous system and is associated with lower IQ scores and neurobehavioral deficits (AAP, 2003).

- Exposure to asbestos has a strong association with lung cancer (AAP, 2003).

- Mold and mildew are associated with asthma and respiratory symptoms (AAP, 2003). Li, Hsu, & Tai (1997) found a positive association between measured degrees of dampness in child care centers in Taiwan and the frequency of reported respiratory illnesses among child care staff.

**Latex**

Since ECE providers use standard precautions (including wearing latex gloves) to protect themselves against infections, ECE providers are at risk for latex allergies. Latex is a milky liquid produced by rubber trees. It is used to make a variety of common household products, such as protective gloves. Latex allergy or sensitivity is a reaction of the body’s immune system to proteins found in natural rubber latex. Symptoms can include skin redness, hives, itching, itchy eyes, sneezing, or coughing. No studies have yet been done to determine the risk the children face by being cared for with latex-covered hands. See Handout: Health and Safety Notes: Latex Allergy and Sensitivity in the Child Care Setting for more information.

**Stress in the ECE Workplace**

Stress in ECE programs is especially important because it not only affects the health and safety of the staff members themselves, but also affects the quality of care they are able to provide to young children. Staff under too much stress may be unable to offer the praise, nurturing, and direction young children need for optimal development. In a survey of Wisconsin ECE staff, Gratz & Claffey (1996) found that 35 percent of ECE providers in centers, and 29 percent of family home providers found child care work stressful or very stressful. Stress is different for each individual. What is stressful for one person may or may not be stressful for another; each of us responds to stress in an entirely different way (American Psychological Association, 1997). Thus, an ECE provider may find a situation stressful at one time but not another, and one provider may interpret a situation as very stressful, while another considers it routine.

**Definition of Occupational Stress**

A major difficulty with many descriptions of stress in the ECE environment is that stress is rarely defined. The National Mental Health Association (2003) acknowledges that stress is difficult to define because it means different things to different people. The only
agreement they note is that stress is considered a negative feeling rather than a positive feeling. NIOSH (2002) defines job stress as “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker.” An advantage of this definition is that it captures the consensus among stress researchers that occupational stress is an interactional concept. It depends upon the external demands of the workplace, the workers’ interpretations of those demands, and the worker’s resources for resolving or minimizing them.

**Documented Sources of Stress in ECE Programs**

NIOSH (2002) states that while most agree that job stress results from the interaction of the worker and conditions of the work, views differ on the relative importance of worker characteristics and working conditions as the primary cause of job stress. These viewpoints are important because they suggest different ways to prevent stress at work. NIOSH contends that working conditions are the key source of job stress, but individual worker characteristics can intervene to strengthen or weaken their influence. Research in ECE tends to concur. Examinations of sources of stress for ECE staff have focused primarily on the working conditions in ECE facilities rather than on the unique personality traits of the staff members.

Sources of occupational stress that have been documented for ECE staff are presented below (Maslach & Pines, 1977).

**Staff/Child Ratio**

Generally, ECE staff in ECE programs with high ratios:

- liked their jobs less
- gave a lower evaluation of the facility
- had less contact with parents
- felt less free to take time off when feeling stressed
- felt less free to express themselves on the job
- felt they had little influence on center policies
- approved compulsory naps and use of tranquilizers for hyperactive children
- were less likely to confer with others when they had problems

**Number of Hours Working with Children**

In comparing ECE staff who worked longer hours directly with children versus staff who divided time between direct work with children and other non-child work, staff who worked longer hours directly with children were more negative, less satisfied, and felt less free to take time off when feeling stressed (Maslach & Pines, 1977).

**Break Time**

Maslach & Pines (1977) defined break times as the opportunity for staff members to voluntarily choose to do non-child related work while other staff took over their responsibilities with the children. In ECE programs where break times were not available, staff reported:

- lower evaluations of the work relationships in the program
- lower evaluations of staff-parent relationships
- less input into the program’s policies
- less ability to express themselves on the job
- after work, they reported feeling more impatient, more irritable, more strained, more upset and more psychologically distant.

**Program Structure**

ECE staff in more open, non-structured ECE programs felt less cheerful, and more moody and irritable at the end of the day (Maslach & Pines, 1977).

**Staff Meetings**

Staff meetings provide ECE professionals with the opportunity to problem solve with co-workers, clarify goals and influence policy. In ECE programs with regular staff meetings, ECE professionals were more satisfied with their jobs, had more positive attitudes towards children, and felt they were achieving their goals (Maslach & Pines, 1977; Aronson, 2001).

**Lack of Social Support**

ECE providers who perceived little social support
report higher levels of stress (Gratz & Claffey, 1996; Kontos & Riessen, 1993).

**Inadequate Professional Support and Recognition**
The ECE profession is rarely considered a high status profession and also offers little room for advancement. This may be a factor in teachers leaving the field to obtain more highly regarded professions. Other teachers may deal with their need for achievement by placing excessive demands for perfection on themselves and their classrooms. Such demands, in the long run, may be stress producing (Hyson, 1982; AAP et al., 2002).

**Inadequate Salaries and Benefits**
The deplorable state of financial support for ECE workers is well known. Whitebook & Phillips (1999) contend that two-thirds of full-time ECE workers have annual salaries below the poverty level. Even providers at the upper end of the ECE pay scale, with a BA and several years of experience, earn an average of less than $20,000 a year. Moreover, few centers offer fully-paid health insurance, and for those that do, staff frequently do not utilize it because they cannot afford the premiums. Very few ECE facilities offer retirement plans (Whitebook & Phillips, 1999). Low wages and lack of benefits are cited as potential sources of stress for staff and major factors in staff turnover (AAP et al., 2002; Gruenberg, 1998; Jorde, 1982).

**Lack of Clear Job Expectations and Methods of Evaluation**
Elementary and secondary school education programs follow officially mandated curricula with specific goals and evaluation procedures for each unit of work. ECE workers, on the other hand, operate without a prescribed curriculum and method of evaluation. As a result, “teachers are often uncertain about just what they are supposed to be doing and how they will know if they are doing it well.” This ambiguity may create anxiety and stress (Hyson, 1982, p. 27).

**Noise/Activity Level**
Noisy classrooms and a high level of activity characterize many ECE programs (Gruenberg, 1998). Unpleasant conditions such as crowding and noise are considered generally stressful in job situations (AAP et al., 2002).

**Symptoms and Effects of Stress**
Workplace stress in ECE programs may well play a key role in causing physical illness among staff (Aronson, 2001). Some of the symptoms or early warning signs of job stress include:

- tense muscles; sore neck, shoulders, and back
- upset stomach
- headaches
- sleep disturbances, insomnia
- fatigue even when getting adequate sleep hours
- boredom, listlessness, low morale
- self medicating with alcohol, caffeine and other drugs
- loss of appetite
- irritability
- difficulty in concentrating

(Adapted from Aronson, 2001; NIOSH, 2002; Hyson, 1982; and University of North Carolina Center for Healthy Student Behaviors, 2004.)

**Preventive Measures**
Strategies for preventing occupational stress fall into two categories: changing stressful working conditions and coping with or managing stressful job situations. NIOSH (2002) maintains that improving working conditions should be given top priority. However, they acknowledge that even the best efforts to improve the workplace will not significantly reduce stress for all workers. For this reason, NIOSH recommends an approach that combines changes to the work situation and stress management as the most useful prevention strategy.
Changing the ECE Workplace to Reduce Stress

The CFOC standards recommend workplace interventions in the form of written personnel policies for such things as break times away from children to prevent potentially stressful situations for caregivers (AAP et al., 2002, Standard 3.058). Other proposed workplace interventions for reducing staff stress include:

- written job descriptions and personnel policies to insure staff clarity about their responsibilities
- regular staff meetings so that members can share feelings and concerns and feel supported by supervisors and colleagues
- involvement of staff in program decisions so that they feel control over their work environment
- regularly scheduled trained volunteers to assist during the busiest times of the day so staff can take breaks or provide individual attention to children.
- someone always on call so staff members who feel overwhelmed by the demands of the job can take a break from the children
- a pleasant, comfortable place with adult-size furniture for staff to use on breaks so that their time away from the children is relaxing
- regularly scheduled exercise breaks for staff such as a 10-minute walk twice a day.

(Adapted from: Aronson, 2001; Prevent Child Abuse North Carolina, 2000)

Managing Stress

Instead of changing stress producers in the workplace, stress management programs teach ECE providers ways to change their response to stress events. Stress management programs teach workers about the nature and sources of stress, the effects of stress on health, and personal skills to reduce stress, such as time management or relaxation exercises. The advantages of stress management programs are that they are inexpensive and easy to implement. However, without accompanying workplace modifications, the effects of these programs are often short lived (NIOSH, 2002).

To date, stress management attempts in ECE programs have focused on providing tips for building personal skills to manage stress (Aronson, 2001; Mayer, 2002). Some of the stress management tips include:

**Prioritize.** Identify those tasks that are most important and take care of those first.

**Set limits.** Don’t take on others’ problems.

**Use appropriate resources.** ECE providers can only go so far in meeting children’s needs. Recommend community resources to parents when appropriate.

**Maximize job satisfaction.** Structure the day to include as many benefits and enjoyable tasks as possible. Even five minutes of an enjoyable activity can improve health.

**Get support.** Identify other ECE staff to discuss work issues with. Share concerns and ideas.

**Laugh.** Laughter is good medicine. Find time to laugh and have fun with whatever you are doing.

**Exercise.** Physical activity is relaxing and releases hormones that self-medicate. Stretching exercises and exercises to strengthen the back are important for stress management.

Personnel Regulations Governing the Workplace

Two sets of policies apply to the ECE workplace for the protection of employees: the OSHA employee regulations and the CFOC standards (AAP et al., 2002). The CCHC should be familiar with both sets of policies.

OSHA Regulations

The OSHA Occupational Safety and Health Act of 1970 is a federal law and must be followed in the ECE workplace to protect employers and employees. As applied to ECE, the law stipulates that:

The ECE employer must:

- have a written illness and injury prevention program
• display the OSHA and labor law poster (see Handout: CAL-OSHA Safety and Health Protection On the Job)
• identify job hazards and train employees regarding those hazards (e.g., bloodborne pathogens, cleaning products, etc.)
• correct hazardous conditions that may result in serious injury
• report serious injury or fatality to nearest state OSHA office

The ECE employer must never:
• permit an employee to do work that violates OSHA law
• permit an employee to be exposed to a hazardous chemical without protection
• allow an untrained employee to perform hazardous work

The ECE employee must:
• keep workplace and coworkers safe
• report hazardous conditions
• obey state job health and safety laws

In order to carry out the purposes of this Act, OSHA representatives are authorized to visit ECE workplaces:
• to provide guidance in implementing an injury and illness prevention program
• in response to an employee complaint
• to investigate OSHA/state violations

Although all relevant OSHA regulations apply to ECE programs, the two that have the greatest impact on the protection of ECE staff are the Bloodborne Pathogens (1910.1030) and Hazard Communication (1910.1200) standards. Both of these standards require from the employer a written plan for the individual workplace. (See CTI CCHC Session 2 Illness Prevention Module for sample plan). The Bloodborne Pathogen plan must include identification of tasks with potential exposure, work practice controls (e.g., hand washing, personal protective equipment [gloves], housekeeping, infectious waste disposal), and education and training of employees on the epidemiology and transmission of bloodborne diseases and the control measures in effect at the facility. The Hazard Communication plan must include identification of the hazards, labeling of containers in the workplace, distribution of MSDSs and a training and education program for employees with respect to the hazards. The CCHC should be very familiar with these standards so that the CCHC can assist ECE programs in implementing them.

Additional laws that may apply or may not apply depending upon state regulations appear below.
• Notice to Employees regarding Worker’s Compensation Benefits
• Job Safety and Health Protection
• Family and Medical Leave Act (FMLA)
• Americans with Disabilities accommodations
• Federal Minimum Wage
• Equal Opportunity Employment requirements
• Drug Free, Smoke Free workplace

When they apply, these regulations usually must be posted along with federal OSHA regulations. Check with your state OSHA office for any additional regulations that apply in your state.

Promoting Staff Wellness: Nutrition and Physical Activity

Obesity is a well-documented health hazard. It has been linked to the development of heart disease, certain types of cancer, type 2 diabetes, stroke, arthritis, breathing problems, and psychological disorders such as depression (Office of the Surgeon General, 2001). However, for ECE professionals, obesity may also be an occupational hazard (Aronson, 1996). Caregiving requires moving quickly in an urgent situation, getting down to child level, and lifting children. Obesity increases the likelihood injury will occur during these caregiving activities (Aronson, 1996). Obesity in American society has been described as epidemic.
In 1999, 61 percent of adults in the United States were overweight or obese, and obesity among women was slightly higher than among men [26 percent versus 20.6 percent] (Office of the Surgeon General, 2001). The scant data available from ECE research appears even more alarming. In the Gratz & Claffey (1996) survey, ECE providers were asked whether they considered themselves “underweight”, “overweight”, or “about right”. The results indicated that an overwhelming majority (77 percent of directors, 69 percent of teachers, and 72 percent of family providers) rated themselves as “overweight”. Even allowing for the fact that women tend to overestimate their weight (Kuchler & Variyam, 2002), these percentages were more than double the state’s statistics for adult women who reported themselves overweight (27-30 percent) (Gratz & Claffey, 1996).

The President’s Council on Physical Fitness and Sports (U.S. Department of Health and Human Services, President’s Council on Physical Fitness and Sports, 2002) reports that regular physical activity, fitness and exercise are critically important for the health and well-being of people of all ages. Yet data from the National Health Interview Survey (1997-98) indicate that almost four out of 10 (38.3 percent) of American adults participate in no leisure time physical activity (U.S. Department of Health and Human Services, President’s Council on Physical Fitness and Sports, 2002). The statistics from the Gratz & Claffey (1996) ECE staff survey are even more sobering. ECE providers were asked the number of times per week that they engaged in physical activity for at least 30 minutes. Forty-three percent of the sample reported exercising once per week or not at all.

The President’s Council on Fitness and Sports (2002) has declared that physical fitness should be a priority of all Americans. In a Call to Action, the Office of the Surgeon General (2001) recommends that:

- Work sites create more opportunities for physical activity.
- Community facilities be available for physical activity for all people during the week and on the weekends.

The CCHC can be a valuable resource in assisting ECE staff to develop a physical conditioning program in the ECE program. As a selling point with directors, Aronson (1996) points out that conditioning programs are often offered as employee benefits and may be more economical when conducted at the worksite than elsewhere. The fitness program need not be elaborate and may require little or no equipment. For example, Aronson (1996) suggests scheduling fitness activities during children’s nap times and rotating the teachers on duty so that everyone can participate. The CCHC can help ECE providers consider how to schedule such activities so the greatest number of caregivers can participate. For example, if all staff are not needed to stay in the room with napping children, some of the caregivers can do a fitness activity during nap time as long as they remain close by in case they are needed. Rotating who stays in the room with the sleeping children during nap time and who can do a fitness activity in a nearby area gives everyone a chance to participate (Aronson, 1996).

ECE professionals can teach children about the importance of healthy eating and exercise by modeling healthy behaviors (Rafanello, 2001). By discussing foods being served at snack and meal times and seeing ECE providers eating healthy choices, children learn how healthy foods build strong bodies. By scheduling a period of physical exercise every day, children in ECE programs learn the importance of physical fitness.

**WHAT THE CCHC NEEDS TO DO**

**Assess the ECE Program’s Existing Staff Health Policies**

Assess whether staff health policies exist. If so, review the existing policies and determine if they are in compliance with all regulating agencies’ requirements. There should be statements on exclusion/inclusion for illness, mandatory breaks, safe lifting policy, etc. Assess if staff has proper equipment for protection against exposure to disease, i.e., gloves, disinfectants. Help the ECE provider determine if the plan can
be individualized when needed for a particular staff person’s special needs. Find out who is responsible for the policies and how the policies are monitored. If there are weaknesses in some areas of the plan for staff safety and health, offer realistic recommendations to improve the existing policies or development of policies if none is available.

**Assist with Resolution of Staff Health Issues That Arise**

The CCHC can help the ECE providers define problem situations and resolve conflict using the following techniques:

- Have a brainstorming session with staff to explore preventive health needs.
- Provide the current immunization schedule for adults.
- Modify the existing policy or create a new one as needed.
- Help develop a plan for training in bloodborne pathogens, standard precautions, body mechanics, etc.

**Link ECE Programs with Health Departments and Other Resources**

Assist programs in linking with the local health department, the local OSHA office and other relevant health agencies. Help ECE programs and staff access low-income health and dental insurance. Explore resources for substitute caregivers that will allow ECE staff to maintain child-adult ratios so they may take needed breaks or a day off.

**Model Safe and Healthy Behavior at All Times**

- Wash hands upon entering the ECE program or classroom.
- Remove shoes when entering infant/toddler areas.
- If you bring snacks for the staff, choose healthy ones like fruit or nuts.
- Model proper body mechanics when lifting, sitting or reaching.

**Reducing Occupational Risk for ECE Professionals**

The CCHC’s role in the area of staff health is large, mostly because few other sources of support are available for staff health and safety needs. Listed below are a sample of the roles a CCHC can play to improve and promote the health and safety of ECE staff in the areas addressed earlier in this module.

**Infectious Disease**

- Assist staff in developing health policies and procedures to prevent the spread of illness among adults.
- Provide training about how infectious diseases are spread.
- Teach staff about standard precautions (see *Handout: Health and Safety Notes: Standard and Universal Precautions in Child Care Setting*).
- Assist programs to develop an Injury and Illness Prevention Program (e.g. education and training in bloodborne pathogens, hazardous chemical identification, proper lifting techniques, etc.).
• Assist staff in developing a written exposure control plan for bloodborne pathogens to comply with OSHA Bloodborne Pathogens standard 1910.1030.

• Provide training about risks to ECE staff who are pregnant.

• Review immunization records with staff and especially with new employees. Pre-employment health assessments can be helpful in identifying caregivers’ susceptibility to occupational hazards (Aronson, 2003). The CFOC recommendations for pre-employment and ongoing staff health assessments are listed in standard 1.045 on p. 36 (AAP et al., 2002).

• Assist ECE directors to develop a system for monitoring staff immunizations.

• Provide community resources for needed referrals for immunizations.

**Musculoskeletal Injuries**

• Collaborate with ECE staff to conduct a worksite analysis to identify ways to decrease back injury risks.

• Recruit an ergonomics expert or provide training about proper lifting techniques and other measures to prevent back injuries.

• Assist staff in developing policies for prevention of musculoskeletal injuries. Posting stretching exercises and other exercises to strengthen back muscles would be helpful to ECE staff in preventing back injuries.

**Falls**

• Provide safety training to staff on how to prevent slips, trips and falls. Training should include: proper walking, carrying, climbing, descending stairs and ladders, and getting in and out of vehicles. Repeat and/or update training as needed.

• Encourage ECE program administrators and ECE staff to perform regular inspections to identify and correct any hazards that could cause slips, trips, and falls. These inspections should include attention to working and walking surfaces, housekeeping, lighting, vision, and stairways.

**Environmental Hazards**

• Encourage ECE staff to check the composition of any toxic materials being used inside the facility or on outside facility areas. Consider using only non-toxic materials.

• Advise staff to check with the Poison Control Center or the manufacturer if they have any questions about materials (AAP et al., 2002: Standard 5.101). Encourage staff to periodically review MSDSs on all potentially hazardous products used.

• Provide staff with health education programs on the risk of toxic exposure sources, first aid response to exposure, and prevention measures.

• If the facility is housed in an older building, or if lead, asbestos and mold hazards are suspected, advise staff administrators to have facility checked.

• Assist staff in developing a written hazard communication program for the workplace to comply with OSHA Hazard Communication standard 1910.1200.

**Stress**

• Work with staff to establish a comprehensive program for stress reduction in the ECE program.

• Advocate for a time and a place for staff breaks and remind staff of the need to take breaks.

• Provide training in stress management.

• Through public policy and community awareness efforts, advocate for higher staff wages and benefits.
WAYS TO WORK WITH CCHAs

Under the direction of the CCHC and the ECE program director, the Child Care Health Advocate (CCHA) can:

• Orient new employees to health and safety policies and practices specified in the regulations and in CFOC.

• Organize health and safety training for staff including the annual blood borne pathogen training required by OSHA.

• Maintain and review staff training records for current first aid and CPR training, and other mandated health and safety training.

• Assure that proper protective equipment, e.g. gloves, disinfectants, posters and safety reminders are supplied to staff.

• Work with staff and administration to improve the safety of the environment with staff health needs in mind, e.g. adult sized chairs.

• Maintain a current community resource list of support services that consider staff needs and stresses.

• Maintain a current list of substitutes so staff can find relief when sick, or for professional growth activities.

• Perform an annual environmental health assessment and chemical hazard inventory with staff assistance.

• Support employee wellness activities through a health education program using educational materials, bulletin boards and self-assessment tools.

• Act as a mentor and a coach by modeling positive health behaviors and by providing coaching to staff when needed to improve employee related health practices such as proper lifting or hand washing.
ACTIVITY: SELF STUDY

The case scenarios below summarize some of the major issues addressed in the Staff Health module. Please read each scenario and answer the associated questions. The questions focus on specific CCHC roles (advocacy, policy development, health education, and resource and referral) and how these roles are carried out in the area of staff health and safety.

Case Scenario #1

Ben Stanley, Director of the Star Center for Children, has called you and wants your help as a CCHC. He is very concerned about something he heard from the mother of one of the children and asks you to come to the center to talk with him. When you arrive, Mr. Stanley tells you that Vera Lloyd-Drake, the mother of a child in the center, came into his office this morning and was very angry and upset. She told him that Adrienne, one of the staff in the center, has Hepatitis B. Ms. Lloyd-Drake said she works in the Community Hospital as a housekeeper and saw Adrienne in the Hepatitis clinic. Ms. Lloyd-Drake has threatened to pull her child out of the center if Adrienne is allowed to stay.

What are the primary issues in this situation that need to be addressed?

How would you respond to Mr. Stanley?

How would you respond to this situation in terms of:

Advocacy?

Policy development?

Health education/training?

Resource and referral?

Case Scenario #2

While you are talking with Mr. Stanley, he also addresses another issue. He tells you he is concerned about one of the center’s caregivers, Victoria Lowell. Mr. Stanley describes Ms. Lowell as an exceptionally loving caregiver. She is, however, experiencing some health problems due to being extremely overweight. She has back problems and is unable to lift any of the children. Additionally, she has a hard time getting in and out of chairs and it is difficult for her to be involved with the children on the playground. Mr. Stanley values Ms. Lowell as an employee, but is concerned for her health and the children’s safety.
What are the primary issues in this situation that need to be addressed?

How would you respond to Mr. Stanley?

How would you balance this concern with the previous one?

How would you respond to this situation in terms of:

  Advocacy?

  Policy development?

  Health education/training?

  Resource and referral?

**Case Scenario #3**

DeeDee Stanford is the Director of the Cedar Street Child Care Center. It is a large facility with an enrollment of 57 preschoolers and 12 toddlers. The staff has approached her about the safety of using bleach as a disinfectant. Some staff prefer to use Simple Green Cleaner as a disinfectant. DeeDee has called you for help in determining the safety of bleach and in responding to staff concerns.

What are the main issues in this situation?

How would you respond to Ms. Stanford?

How would you respond to this situation in terms of:

  Advocacy?

  Policy Development?

  Health education and training?

  Resource and referral?
Case Scenario #4

You are a CCHC and have been asked by the director to make rounds of the rooms and help identify health hazards that need attention. In the toddler room you notice a staff person lifting a heavy toddler off the diaper table using improper lifting technique (knees straight, twisting while lifting). She also uses the same poor technique when taking heavy diaper bags to the garbage. You also observe the large amount of time ECE staff spend on the floor with the infants and toddlers for bottle feeding and interactions with the babies. One staff member commented that working with babies “kills your back.” When you shared this information with the director she was surprised.

How would you respond to this situation?

How would you respond to this situation in terms of:

Consultation?

Documenting staff injuries?

Advocacy?

Policy development?

Health education/training?

Resource and referral?
NATIONAL STANDARDS


1.023 Initial Orientations of Staff
1.033 Training Related to Occupational Risk Related to Handling Body Fluids
1.045 Preemployment and Ongoing Adult Health Appraisals
1.046 Daily Staff Health Assessment
1.047 Health Limitations of Staff
1.048 Occupational Pregnancy Hazards
1.049 Stress
3.026 Prevention of Exposure to Blood and Bodily Fluids
3.041 Tobacco Use and Prohibited Substances
3.058 Dealing with Caregiver Stress
3.069 Staff Exclusion for Illness
5.080 Facility Arrangements to Minimize Back Injuries
5.012 Informing Staff Regarding Presence of Toxic Substances
5.046 Noise Levels
3.007 Immunizations of Child Care Providers
6.019 Chicken Pox Effects on Pregnant Women
8.011 Content and Development of the Plan for Care of Ill Children and Caregivers
8.038 Policies Prohibiting Smoking Tobacco, Alcohol, Illegal Drugs and Toxic Substances
8.044 Written Personnel Policies
8.058 Maintenance and Content of Staff Records
8.061 Records of Illness
8.062 Records of Injury

Appendices of CFOC:
B. Major Occupational Hazards (See *Handout: Major Occupational Health Hazards*)
D. Gloving
E. Child Care Health Assessment (See *Handout: Child Care Staff Health Assessment*)
J. Cleaning up Bodily Fluids

CALIFORNIA REGULATIONS

From *Manual of Policies and Procedures for Community Care Licensing Division*

101217 (b) Statement of health (TB)
101216.1 (i) Teacher Qualifications
101216 (3) Volunteer Health
101216 (g) Physical and Mental Capability

OSHA REGULATIONS

1910.1030 OSHA Bloodborne Pathogen standard
1910.1200 Employee to be informed of hazards of the chemicals they are exposed to when working
## RESOURCES

<table>
<thead>
<tr>
<th>Organization and Contact Information</th>
<th>Description of Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Heart Association</td>
<td>Dedicated to reducing disability and death from cardiovascular diseases and stroke.</td>
</tr>
<tr>
<td>American Physical Therapy Association</td>
<td>The American Physical Therapy Association (APTA) is a national professional organization representing more than 63,000 members. Its goal is to foster advancements in physical therapy practice, research, and education.</td>
</tr>
<tr>
<td>Cal-OSHA Regional</td>
<td>District and Field Offices</td>
</tr>
<tr>
<td></td>
<td>Cal-OSHA Headquarters</td>
</tr>
<tr>
<td></td>
<td>455 Golden Gate Avenue, 10th Floor</td>
</tr>
<tr>
<td></td>
<td>San Francisco, CA 94102</td>
</tr>
<tr>
<td></td>
<td>(415) 703-5100</td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA Consultation</td>
</tr>
<tr>
<td></td>
<td>Toll-Free Number (800) 963-9424</td>
</tr>
<tr>
<td>Cal/OSHA Consultation</td>
<td>Northern California</td>
</tr>
<tr>
<td></td>
<td>2424 Arden Way, Ste. 410, Sacramento, CA 95825</td>
</tr>
<tr>
<td></td>
<td>(916) 263-0704</td>
</tr>
<tr>
<td>San Francisco Bay Area</td>
<td>San Francisco Bay Area</td>
</tr>
<tr>
<td></td>
<td>1515 Clay Street, Ste. 1103, Oakland, CA 94612</td>
</tr>
<tr>
<td></td>
<td>(510) 622-2891</td>
</tr>
<tr>
<td>Central Valley</td>
<td>Central Valley</td>
</tr>
<tr>
<td></td>
<td>1901 North Gateway Boulevard, Ste. 102</td>
</tr>
<tr>
<td></td>
<td>Fresno, CA 93727</td>
</tr>
<tr>
<td>San Fernando Valley</td>
<td>San Fernando Valley</td>
</tr>
<tr>
<td></td>
<td>6150 Van Nuys Boulevard, Ste. 307</td>
</tr>
<tr>
<td></td>
<td>Van Nuys, CA 91401</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>Los Angeles</td>
</tr>
<tr>
<td></td>
<td>10350 Heritage Park Drive, Ste. 201</td>
</tr>
<tr>
<td></td>
<td>Santa Fe Springs, CA 90670</td>
</tr>
<tr>
<td>San Bernardino, Orange</td>
<td>San Bernardino, Orange</td>
</tr>
<tr>
<td></td>
<td>464 W. 4th Street, Ste. 339</td>
</tr>
<tr>
<td></td>
<td>San Bernardino, CA 92401 (909) 383-4567</td>
</tr>
<tr>
<td>San Diego</td>
<td>San Diego</td>
</tr>
<tr>
<td></td>
<td>7575 Metropolitan Drive, Ste. 204 San Diego, CA 92108</td>
</tr>
<tr>
<td></td>
<td>(619) 767-2060</td>
</tr>
<tr>
<td>Organization and Contact Information</td>
<td>Description of Resources</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Center for Research on Occupational and Environmental Toxicology (CROET) Oregon Health and Sciences University 3181 SW Sam Jackson Park Road, L606 Portland, Oregon 97239-3098 (503) 494-4273 <a href="http://www.croetweb.com">www.croetweb.com</a></td>
<td>An occupational safety and health resource directory sponsored by the Center for Research on Occupational and Environmental Toxicology (CROET) at Oregon Health &amp; Science University in Portland, Oregon. Contains links to hundreds of occupational safety and health resources focusing on workplace issues.</td>
</tr>
<tr>
<td>City of Tucson Environmental Management Division Health and Safety in the Arts <a href="http://www.ci.tucson.az.us/arthazards/medium.html">www.ci.tucson.az.us/arthazards/medium.html</a></td>
<td>A searchable database of health and safety information for artists</td>
</tr>
</tbody>
</table>
| Head Start | Head Start materials are generally available at no cost and many can be downloaded from their Web site at www.headstartinfo.org/publications or ordered by calling (866) 763-6481. The following are suitable for training on the topic of staff health promotion:  

*Enhancing Health in the Head Start Workplace*

www.headstartinfo.org/publications/enhancing_health/contents.htm

This technical training guide increases the understanding and skills of Head Start staff in identifying the various ways in which employee health affects the effectiveness of the organization; design training programs which encourage employees to improve their own health; understand how the organization contributes to the overall health of employees; and implement policies which allow employees to enjoy the best health possible.  

*Laying a Foundation in Health and Wellness*

www.headstartinfo.org/publications/health_wellness/contents.htm

This foundation guide helps participants explore their basic understanding of health concepts, encouraging a perspective that is holistic, multicultural and oriented toward individual and community wellness. The guide links health to Head Start’s mission of developing social competence and describes ways that the Head Start program can teach about and support healthy behaviors among children, families and staff members. |
<table>
<thead>
<tr>
<th>Organization and Contact Information</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Consumer Product Safety Commission Recalls and Compliance Division Office of Compliance, ASTM D-4236 American Society of Testing Materials Washington, DC 20207 (301) 504-7913 <a href="http://www.cpsc.gov">www.cpsc.gov</a></td>
<td>The U.S. Consumer Product Safety Commission is charged with protecting the public from unreasonable risks of serious injury or death from more than 15,000 types of consumer products under the agency’s jurisdiction. The CPSC is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard or can injure children. You can find information on over 4,000 product recalls and recall alerts using the Web site.</td>
</tr>
</tbody>
</table>

**Publications**


REFERENCES


## Handouts from California Childcare Health Program (CCHP), Oakland, CA

<table>
<thead>
<tr>
<th>Page</th>
<th>Handout Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td><em>Health and Safety Notes: Influenza and You—What You Need to Know</em></td>
</tr>
<tr>
<td>33</td>
<td><em>Fact Sheets for Families: Vaccines Aren't Just for Children</em></td>
</tr>
<tr>
<td>34</td>
<td><em>Staff Illness and Exclusion Policy</em></td>
</tr>
<tr>
<td>35</td>
<td><em>Health and Safety Notes: Latex Allergy and Sensitivity in the Child Care Setting</em></td>
</tr>
<tr>
<td>37</td>
<td><em>Health and Safety Notes: Standard and Universal Precautions in the Child Care Setting</em></td>
</tr>
</tbody>
</table>

## Handouts from Other Sources

<table>
<thead>
<tr>
<th>Page</th>
<th>Handout Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td><em>Major Occupational Health Hazards</em></td>
</tr>
<tr>
<td>40</td>
<td><em>Child Care Staff Health Assessment</em></td>
</tr>
<tr>
<td>41</td>
<td><em>Recommended Adult Immunization Schedule by Vaccine and Age Group</em></td>
</tr>
<tr>
<td>43</td>
<td>Clorox Company: <em>Material Safety Data Sheet</em></td>
</tr>
</tbody>
</table>
| 44   | CAL-OSHA: *Safety and Health Protection on the Job*  
CAL-OSHA: *Work Smarter, Not Just Harder: Think Ergonomics* |
Influenza and You—What You Need to Know

Is it a cold or the flu?
Colds usually start two to three days after exposure to the virus and last two to seven days. Symptoms may include a scratchy, sore throat, sneezing, runny nose, and a mild cough. Fever is generally mild in older children and adults. Infants and young children may run higher fevers. The flu causes a sudden headache, dry cough, muscle ache, extreme fatigue, and high fever. Most people feel better in a few days, but the fatigue and cough can last for up to two weeks or more.

How can I prevent the flu from spreading?
• Practice good hand washing.
• Teach children to cough into their elbow and away from people.
• Wipe noses with clean disposable tissues, dispose of them properly and wash your hands.
• Don’t share food, bottles, toothbrushes or toys that can be put in the mouth.
• Play outdoors often. Let fresh air into your program daily.

What should I do for a flu victim?
Provide lots of fluids and rest. Medicine for muscle aches and cough may be purchased over the counter. If someone is in a high-risk group, continues to have high fever for more than a few days, or thinks they are getting pneumonia (worsening cough, pain in chest, continued fever, shortness of breath) then they should contact their health care provider immediately.

The flu vaccine
The flu vaccine provides slightly different protection every year because the flu virus mutates or changes frequently. Vaccination against the flu is recommended from October through early November. After receiving the vaccine it takes a couple of weeks to develop protective immunity from the flu virus. This protection lasts for about three to four months or through the worst part of the flu season, which is November through March or April, with peak occurrence in February. It’s unusual to get the flu more than once a year.

Who needs the flu vaccine?
You do. The influenza vaccination is recommended for all adults who care for children 0 to 23 months old. By protecting yourself you are also protecting those around you. Any child six months of age or older can be vaccinated against the flu as well.

People at high risk of severe illness are especially encouraged to get the flu vaccine. Influenza vaccination is recommended for all of the following:

• children 6 to 23 months old (this group has the highest rate of hospitalization with the flu);
• household contacts and out-of-home caregivers of children 0 to 23 months old;
• adults and children with chronic health conditions like asthma, heart disease, diabetes, kidney disease, cancer and HIV/AIDS;
• women who are more than three months pregnant during the flu season (typically November through March); and
• adults 65 or older (even if they’re in good health).

Where can I get the flu vaccine?
From your health care provider or the Public Health Department. For more information about immunization, or for links to local resources, call the Healthline at (800) 333-3212.
“The flu is just like a bad cold.”  False.
The flu is far more serious than a bad cold. It’s a disease of the lungs, and it can lead to pneumonia. Each year about 114,000 people in the U.S. are hospitalized and about 20,000 people (mostly over 65) die as a result of having the flu. Children under two years of age are as likely as those over 65 to have to go to the hospital because of the flu.

“The flu shot can give you the flu.”  False.
Flu vaccines are made from killed flu viruses. These cannot give you the flu.

“Even if I get the flu shot, I can still get the flu.”  Only partly true.
This can happen, but the flu shot protects most people from the flu. The flu shot will not protect you from other viruses that can cause illnesses that sometimes feel like the flu.

“The vaccine isn’t 100 percent effective, so I’m better off getting the flu.”  False.
No vaccine is 100 percent effective. But if you get a flu shot and still get the flu, you are likely to be far less sick than if you had not received the flu shot.

“The side effects of the flu shot are worse than the flu.”  False.
The worst side effect you’re likely to get is a sore arm. The risk of a rare allergic reaction is far less than the risk of severe complications from influenza.

“Not everyone can get a flu shot.”  True.
If you are allergic to eggs (which are used in making the vaccine), are ill with a high fever, or have had a severe reaction to the flu vaccine in the past, you might not be able to get the vaccine.

“Only the very old and the very sick need a flu shot.”  False.
Adults and children who are in good health need a flu shot to stay healthy and avoid exposing someone who is more at risk because of their age (very young or very old), a medical condition, pregnancy, or weakened immune system.

“December is too late to get a flu shot.”  False.
The flu shot can be given before or during the flu season. The optimal time to get a flu shot is October or November, but a flu shot in December or later will still protect you against flu outbreaks.

**Resources**
For more information on the flu or the vaccine, call the Healthline at (800) 333-3212 or check these sites:
www.cdc.gov/nip/flu
www.immunize.org/vis/2flu.pdf (flyer in English)
www.immunize.org/vis/spflu02.pdf (flyer in Spanish)

**Reference**
Portions of this article were adapted from *Flu Facts for Everyone*, a fact sheet by the Centers for Disease Control.

*by Susan Jensen RN, MSN, PNP (rev. 10/04)*
Parents may think that vaccines or shots are just for infants and children, but illnesses have no age limits and adults also need protection. There are many vaccines for adults as well and some of them are even more important for adults than for children.

**How do vaccines protect us?**
When you are exposed to germs, your body makes proteins called antibodies to fight them like soldiers, even in the future. Vaccines are made from germs that cause illnesses, but they are either weaker, dead forms or just pieces of germs which cannot cause illness but can still stimulate your body to produce antibodies.

**Which vaccines are recommended?**
More than 40,000 adults die each year from three major vaccine-preventable diseases: influenza (flu), pneumococcal infections and hepatitis B. Measles, mumps, rubella, chickenpox, tetanus, diphtheria and hepatitis A also cause a considerable number of illnesses and some deaths among adults. Many adults need to receive vaccines against these illnesses.

**Are vaccines safe?**
Vaccines are among the most effective and safest medicines. Even so, like other medicines, vaccines may cause side effects such as temporary pain at the injection site or low fever. Side effects are rarely serious.

**Where can adults get vaccines?**
Immunizations are given in doctors’ offices, managed care organizations (HMOs), public health clinics, nursing homes, assisted care facilities, pharmacies and other sites such as health fairs and senior centers. For information on vaccines, ask your health care provider or call the CDC Immunization Hotline at (800) 232-2522 (English), (800) 232-0233 (Español) or visit www.cdc.gov/nip.

---

**Recommended Adult Immunization Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age Group (in years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19–49</td>
</tr>
<tr>
<td></td>
<td>50–64</td>
</tr>
<tr>
<td></td>
<td>≥65</td>
</tr>
<tr>
<td>Tetanus, diphtheria (Td)</td>
<td>1 dose annually for persons with medical or occupational indications or household contacts of persons with indicators</td>
</tr>
<tr>
<td></td>
<td>1 dose booster every 10 years</td>
</tr>
<tr>
<td>Influenza</td>
<td>1 annual dose</td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)</td>
<td>1 dose for persons with medical or other indications (1 dose revaccination for immunosuppressive conditions)</td>
</tr>
<tr>
<td></td>
<td>1 dose for unvaccinated persons 1 dose revaccination</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>3 doses (0, 1–2, 4–6 months) for persons with medical, behavioral, occupational, or other indications</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>2 doses (0, 6–12 months) for persons with medical, behavioral, occupational, or other indications</td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)</td>
<td>1 dose if MMR vaccination history is unreliable; 2 doses for persons with occupational, geographic or other indications</td>
</tr>
<tr>
<td>Varicella</td>
<td>2 doses (0, 4–8 weeks) for persons who are susceptible</td>
</tr>
<tr>
<td>Meningococcal (polysaccharide)</td>
<td>1 dose for persons with medical or other indications</td>
</tr>
</tbody>
</table>

For all persons in this age group
For persons with medical/exposure indicators
Catch-up on childhood vaccinations
Like children, adults are also capable of transmitting communicable diseases. A child care provider should be temporarily excluded from providing care to children if she or he has one or more of the following conditions:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Exclude from Child Care Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickenpox</td>
<td>Until six days after the start of rash or when sores have dried/crusted.</td>
</tr>
<tr>
<td>Shingles</td>
<td>Only if sores cannot be covered by clothing or a dressing; if not, exclude until sores have crusted and are dry. A person with active shingles should not care for immune-suppressed children, or work with immune-suppressed staff or parents.</td>
</tr>
<tr>
<td>Rash with fever or joint pain</td>
<td>Until diagnosed not to be measles or rubella.</td>
</tr>
<tr>
<td>Measles and Rubella</td>
<td>Until six days after rash starts.</td>
</tr>
<tr>
<td>Vomiting</td>
<td>If two or more episodes of vomiting during the previous 24 hours, or if accompanied by a fever, until vomiting resolves or is determined to be due to such noninfectious conditions as pregnancy or a digestive disorder.</td>
</tr>
<tr>
<td>Pertussis (whooping cough)</td>
<td>Until after five days of prescribed antibiotic therapy.</td>
</tr>
<tr>
<td>Mumps</td>
<td>Until nine days after glands begin to swell.</td>
</tr>
<tr>
<td>Diarrheal illness</td>
<td>If three or more episodes of loose stools during previous 24 hours, or if diarrhea is accompanied by fever, until diarrhea resolves.</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>For one week after jaundice appears or as directed by health department, especially when no symptoms are present.</td>
</tr>
<tr>
<td>Impetigo (a skin infection)</td>
<td>Until 24 hours after prescribed antibiotic treatment begins and lesions are not draining.</td>
</tr>
<tr>
<td>Active Tuberculosis (TB) [not a positive skin test only]</td>
<td>Until the local health department approves return to the setting.</td>
</tr>
<tr>
<td>Strep throat (or other streptococcal infection)</td>
<td>Until 24 hours after initial antibiotic treatment, and fever has ended.</td>
</tr>
<tr>
<td>Scabies/head lice/etc.</td>
<td>Until after the first treatment; scabies until treatment has been completed.</td>
</tr>
<tr>
<td>Purulent Conjunctivitis</td>
<td>Until 24 hours after prescribed treatment has begun.</td>
</tr>
<tr>
<td>Haemophilus Influenza Type b (Hib)</td>
<td>Until the prescribed antibiotic treatment has begun.</td>
</tr>
<tr>
<td>Meningococal Infection</td>
<td>As specified in specific disease section of this manual.</td>
</tr>
<tr>
<td>Respiratory Illness</td>
<td>If the illness limits the staff member’s ability to provide an acceptable level of child care and compromises the health and safety of children or other staff.</td>
</tr>
<tr>
<td>Herpes cold sores</td>
<td>Should cover and not touch their lesions, carefully observe hand washing policies and must not kiss or nuzzle infants and children, especially those with dermatitis.</td>
</tr>
<tr>
<td>Other conditions mandated by state public health law</td>
<td>As required by law (consult your local health department).</td>
</tr>
</tbody>
</table>
With more child care providers and health professionals following universal precautions to protect themselves from infections such as viral hepatitis and HIV, we are seeing an increase in latex allergies and sensitivities. Universal precautions require that child care providers wear protective gloves for any procedures that put them into contact with blood. The most effective, inexpensive and comfortable protective gloves are made from latex.

**What is latex?**
Latex is a milky liquid produced by rubber trees. It is used to make a wide variety of common household products such as protective gloves, balloons, disposable diapers, bandage tapes, pacifiers, rubber bands, bottle nipples, tires, toys and elastic in clothing, to name a few.

**What is latex allergy?**
Latex allergy or hypersensitivity is a reaction of the body’s immune system to proteins found in natural rubber latex. Some people also react to chemicals in the gloves besides the latex itself. Sensitivity to latex can range from a mild skin irritation to a severe allergic reaction.

Reactions can occur from direct contact with products containing latex or from breathing latex particles in the air. Most latex gloves are treated with cornstarch powder to make them easier to put on and take off, and this powder binds with the latex proteins. When gloves are removed or snapped, they release the powder—along with the latex proteins—into the air.

**What are the symptoms?**
If someone becomes sensitive to latex, symptoms usually begin within minutes of exposure, but they can occur hours later and be quite varied.

- Mild reactions may cause skin redness, hives or itching.
- More severe reactions may cause respiratory symptoms such as itchy eyes, sneezing, coughing and asthma.
- Rarely, life-threatening shock may occur (but this seldom occurs as the first episode).

**Who is at risk?**
Anyone can develop a latex allergy, but the following groups of people are at increased risk:

- people who wear latex gloves regularly, such as child care providers and health care workers
- children with spina bifida (a birth defect involving the spinal cord or backbone)
- people with other allergies or asthma
- people who have had multiple surgical procedures
- people who have allergies to certain foods, especially avocado, potato, banana, tomato, chestnuts, kiwi and papaya.

Latex allergy should be suspected in anyone who develops symptoms after exposure, and he or she should be evaluated by a medical provider to determine if the reaction was caused by exposure to latex.

**What should I do if I am allergic?**
If diagnosed with a latex allergy by a medical provider, you should:

- Tell your employer, clients and all health care providers that you are allergic. Do not rely on doctors, nurses or dentists to know this from your chart.
- Wear a medical alert bracelet and carry non-latex gloves for convenience.
- Know which products might contain latex and avoid them.
- If you have staff or children in your program who are allergic, post a list of products containing latex and try to replace as many of them as possible with safer alternatives.
Any disposable glove is acceptable for food preparation or routine diapering as long as you practice effective handwashing.

The most important point to consider is that not all disposable gloves will protect you from viruses like hepatitis B or C, or HIV. Be sure you are using a medical exam glove that meets EPA guidelines. Talk to a medical supply store or your pharmacist if you’re not sure.

If you are searching for non-latex gloves, keep in mind that the term “hypoallergenic” is not regulated, and does not mean latex-free—it usually means there are fewer chemicals used to make them. Read the label or ask your pharmacist.

Also remember that gloves deteriorate over time, so no matter what kind of gloves you purchase, be sure to check the expiration date on the box and store extra boxes in a cool, dry, dark place.

Resources

American Academy of Allergy, Asthma & Immunology 800-222-2762 or www.aaaai.org

American Latex Allergy Association 888-97-ALERT or www.latexallergyresources.org

Choosing Gloves

There are several kinds of gloves for you to choose from, and each has advantages and disadvantages. You will need to choose the right glove for the right situation.

- Latex gloves provide the most protection at the lowest cost and are the most comfortable for the majority of people.
- Single-use vinyl and polyvinyl chloride gloves do not contain latex and are appropriate for use in the child care setting when blood is not involved.
- Medical grade non-latex gloves provide maximum protection but are generally more expensive. Consider a bulk purchasing arrangement through your Family Child Care Association.

By A. Rahman Zamani, MPH and Lyn Dailey, PHN (3/8/01)
What are standard and universal precautions?

**Universal precautions** is the term used for the guidelines that were developed by the Centers for Disease Control and Prevention in the 1980s to reduce the spread of infection to health care providers and patients in health care settings.

**Standard precautions** is the new term used for an expansion of universal precautions, recognizing that any body fluid may hold contagious germs. They are still primarily designed to prevent the spread of bloodborne disease (disease carried by blood or other body fluids), but are also excellent measures to prevent the spread of infectious disease in group care settings such as child care facilities.

Why are standard precautions needed?

Standard precautions are designed to reduce the risk of spreading infectious disease from both recognized and unrecognized sources of infections. Germs that are spread through blood and body fluids can come at any time from any person. You may not know if someone is infected with a virus such as hepatitis B or HIV, and the infected person may not even know. This is why you must behave as if every individual might be infected with any germ in all situations that place you in contact with blood or body fluids.

What do standard precautions consist of?

Standard precautions include the following:

- **Hand washing**
  - after diapering or toileting children
  - after handling body fluids of any kind
  - before and after giving first aid (such as cleaning cuts and scratches or bloody noses)
  - after cleaning up spills or objects contaminated with body fluids
  - after taking off your disposable gloves
  - remember that wearing gloves does not mean that you don’t have to wash your hands!

- **Latex gloves should be worn**
  - during contact with blood or body fluids which contain blood (such as vomit or feces which contain blood you can see)
  - when individuals have cuts, scratches or rashes which cause breaks in the skin of their hands

- **Environmental sanitizing** should be done regularly and as needed. In the child care setting this means cleaning toys, surfaces and diapering areas with a bleach solution (1 tablespoon of bleach per quart of water made fresh daily). Blood spills or objects with blood on them need a stronger solution of 1/4 cup bleach to 2 1/2 cups water. (Donowitz, 1999). Wear gloves when handling blood.

- **Proper disposal of materials** that are soaked in or caked with blood requires double bagging in plastic bags that are securely tied. Send these items home with the child, or if you wash them, wash them separately from other items. Items used for procedures on children with special needs (such as lancets for finger sticks, or syringes for injections given by parents) require a special container for safe disposal. Parents can provide what is called a “sharps container” which safely stores the lancets or needles until the parent can take them home for disposal.

Standard precautions in child care settings vs. hospitals and clinics

Child care facilities follow the standard precautions in clinic and hospital settings with the following exceptions:
Use of nonporous gloves is optional except when blood or blood-containing body fluids may be involved.

Gowns and masks are not required.

Appropriate barriers include materials such as disposable diaper table paper, disposable towels and surfaces that can be sanitized in group care settings.

What else am I required to do?
The Occupational Safety and Health Administration (OSHA) also requires that all child care programs with staff (even family child care homes with assistants or volunteers) have an Exposure Control Plan for Bloodborne Pathogens. This plan must be in writing and include:

**Exposure determination.** This is a list of the job titles or duties which might put an individual in contact with blood or blood-containing fluids (such as first aid, nose blowing, diapering, etc.)

**Methods of compliance.** These are the ways you will assure your plan will work and which include written standard precautions and cleaning plans, training of staff in their use, and the availability of gloves.

**Hepatitis B vaccination.** This must be offered by the employer at no cost to staff. The vaccine series can begin either

- within 10 days of employment, or
- within 24 hours after a potential blood exposure (accidental contact with blood while administering first aid, diapering an infant with a bloody stool, etc.)

Note: Hepatitis B is a series of three shots which must be given on a specific schedule. Now that all children are required to have the series before entering care, child care providers should be at a reduced risk of getting hepatitis B in a child care setting.

**Exposure reporting procedures.** These are required and will tell staff what to do if something happens which puts an employee in contact with blood on their broken skin (cuts, scratches, open rashes or chapped skin) or on their mucous membranes (in the eye, mouth or nose). There are also record-keeping requirements to document the exposure situation, whether or not the employee received a free medical exam and follow-up, and that the employee was offered the hepatitis B vaccination if she/he did not already have the series.

Training on OSHA regulations. This must be provided to all staff at the time that they start work and must include:

- an explanation of how HIV (which causes AIDS) and HBV (which causes hepatitis B) are transmitted
- an explanation of standard precautions and the exposure control plan for your program.

For more information on OSHA requirements, contact the Cal/OSHA Consultation Service office listed in your telephone directory, or call the Healthline at (800) 333-3212 for a referral to the office nearest you.

References


*by Lyn Dailey, PHN Revised Nov. 2004*
### Major Occupational Health Hazards

#### Infectious Diseases and Organisms

**General Types of Infectious Diseases**
- Diarrhea (infectious)
- Respiratory tract infection

**Specific Infectious Diseases and Organisms**
- Adenovirus
- Astrovirus
- Caliciviruses
- Campylobacter jejuni/coli
- Chickenpox (varicella)
- Clostridium parvum
- Cytomegalovirus (CMV)
- Escherichia coli 0157:H7
- Giardia lamblia
- Hepatitis A
- Hepatitis B
- Hepatitis C
- Herpes 6
- Herpes 7
- Herpes simplex
- Herpes zoster
- Human Immunodeficiency Virus (HIV)
- Impetigo
- Influenza
- Lice
- Measles
- Meningitis (bacterial, viral)
- Meningococcus (Neisseria meningitidis)
- Mumps
- Parvovirus B19
- Pertussis
- Pinworm
- Ringworm
- Rotavirus
- Rubella
- Salmonella organisms
- Scabies
- Shigella organisms
- Staphylococcus aureus
- Streptococcus, Group A
- Tuberculosis

#### Injuries and Noninfectious Diseases

- Back injuries
- Bites
- Dermatitis
- Falls

#### Environmental exposure

- Art materials
- Cleaning, sanitizing and disinfecting solutions
- Indoor air pollution
- Noise
- Odor

#### Stress

- Fear of liability
- Inadequate break time, sick time, and personal days
- Inadequate facilities
- Inadequate pay
- Inadequate recognition
- Inadequate training
- Insufficient professional recognition
- Lack of adequate medical/dental health insurance
- Responsibility for children's welfare
- Undervaluing of work
- Working alone

Child Care Staff Health Assessment

********** Employer should complete this section. **********

Name of person to be examined: ____________________________

Employer for whom examination is being done: ____________________________

Employer’s Location: ____________________________ Phone number: ____________________________

Purpose of examination: ☐ pre-employment (with conditional offer of employment) ☐ annual re-examination

Type of activity on the job: ☐ lifting, carrying children ☐ close contact with children ☐ food preparation ☐ desk work ☐ driver of vehicles ☐ facility maintenance

**** Part I and Part II below must be completed and signed by a licensed physician or CRNP. ****

Based on a review of the medical record, health history, and examination, does this person have any of the following conditions or problems that might affect job performance or require accommodation?

Date of exam: ________________

Part I: Health Problems

Visual acuity less than 20/40 (combined, obtained with lenses if needed)? ......................................................... yes ...... no

Decreased hearing or difficulty functioning in a noisy environment (less than 20 db at 500, 1000, 2000, 4000 Hz)? ................................................................. yes ...... no

Respiratory problems (asthma, emphysema, airway allergies, current smoker, other)? ......................................................... yes ...... no

Heart, blood pressure, or other cardiovascular problems? ........................................................................................ yes ...... no

Gastrointestinal problems (ulcer, colitis, special dietary requirements, obesity, other)? ............................................. yes ...... no

Endocrine problems (diabetes, thyroid, other)? ........................................................................................................ yes ...... no

Emotional disorders or addiction (depression, substance dependency, difficulty handling stress, other)? ................ yes ...... no

Neurologic problems (epilepsy, Parkinsonism, other)? ........................................................................................ yes ...... no

Musculoskeletal problems (low back pain or susceptibility to back injury, neck problems, arthritis, limitations on activity)? ................................................. yes ...... no

Skin problems (eczema, rashes, conditions incompatible with frequent handwashing, other)? .............................................. yes ...... no

Immune system problems (from medication, inherent susceptibility to infection, illness, allergies)? .................. yes ...... no

Need for more frequent health visits or sick days than the average person? ................................................................. yes ...... no

Other special medical problem or chronic disease that requires work restrictions or accommodation? ........................ yes ...... no

Part II: Infectious Disease Status

Immunizations now due/overdue for:

dT (every 10 years) ................................................................................................................................................ yes ...... no

MMR (2 doses for persons born after 1989; 1 dose for those born in or after 1957)................................................................. yes ...... no

polio (OPV or IPV in childhood) ........................................................................................................................................ yes ...... no

hepatitis B (3 dose series) ................................................................................................................................................. yes ...... no

varicella (2 doses or had the disease) .......................................................................................................................... yes ...... no

influenza ........................................................................................................................................................................... yes ...... no

pneumococcal vaccine .................................................................................................................................................. yes ...... no

Female of childbearing age susceptible to CMV or parvovirus? .................................................................................. yes ...... no

Evaluation of tuberculosis status shows a risk for communicable TB? ................................................................. yes ...... no

Mantoux test date.......................................................................................................................................................... Result: ____________________________

Tuberculosis transmission shall be controlled by requiring regular and substitute staff members and volunteers to have their tuberculosis status assessed with a one-step or two-step Mantoux intradermal skin test prior to beginning employment unless they produce documentation of the following:

a) A positive Mantoux intradermal skin test result in the past, or
b) Tuberculosis disease that has been treated appropriately in the past.

The one-step Mantoux intradermal tuberculin test shall suffice except that for individuals over 60 years of age or those who have a medical condition that reduces their immune response, the use of the two-step method is required. Individuals with a positive Mantoux intradermal skin test or tuberculosis disease in the past shall be evaluated with chest radiographs and shall be cleared for work by their physician or a health department official.

Please attach additional sheets to explain all "yes" answers above. Include the plan for follow up.

__(Date) (Patient's Signature) __________________________________________________________________________________________

Phone number of physician or CRNP: ____________________________

I have read and understand the above information.

__(Date) (Signature) __________________________________________________________________________________________

(Printed last name) (Title) 


This form was adapted from Model Child Care Health Policies, June 1997, by the Early Childhood Education Linkage System (ECELS), a program funded by the Pennsylvania Deps. of Health & Public Welfare and contractually administered by the PA Chapter, American Academy of Pediatrics.
### Recommended Adult Immunization Schedule by Vaccine and Age Group

**UNITED STATES · OCTOBER 2004–SEPTEMBER 2005**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age group (yrs)</th>
<th>19–49</th>
<th>50–64</th>
<th>≥65</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tetanus, Diphtheria (Td)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Influenza</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 dose annually</td>
<td></td>
<td></td>
<td>1 dose annually</td>
</tr>
<tr>
<td><strong>Pneumococcal (polysaccharide)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 dose</td>
<td></td>
<td></td>
<td>1 dose</td>
</tr>
<tr>
<td><strong>Hepatitis B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 doses (0, 1–2, 4–6 months)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hepatitis A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 doses (0, 6–12 months)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Measles, Mumps, Rubella (MMR)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Varicella</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 doses (0, 4–8 weeks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Meningococcal (polysaccharide)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program. See Footnotes for Recommended Adult Immunization Schedule on back cover.

This schedule indicates the recommended age groups for routine administration of currently licensed vaccines for persons aged ≥19 years. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine’s other components are not contraindicated. Providers should consult manufacturers’ package inserts for detailed recommendations.

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available by telephone, 800-822-7967, or from the VAERS website at [http://www.vaers.org](http://www.vaers.org).


Additional information about the vaccines listed above and contraindications for immunization is available at [http://www.cdc.gov/nip](http://www.cdc.gov/nip) or 800-CDC-INFO [800-232-4636] (English and Spanish).
## Recommended Adult Immunization Schedule by Vaccine and Medical and Other Indications

**UNITED STATES · OCTOBER 2004—SEPTEMBER 2005**

<table>
<thead>
<tr>
<th>Indication</th>
<th>Vaccine</th>
<th>Pregnancy</th>
<th>Diabetes, heart disease, chronic pulmonary disease, chronic liver disease (including chronic alcoholism)</th>
<th>Congenital immunodeficiency, cochlear implants, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, CSF* leaks, radiation or large amounts of corticosteroids</th>
<th>Renal failure/end stage renal disease, recipients of hemodialysis or clotting factor concentrates</th>
<th>Asplenia (including elective splenectomy and terminal complement component deficiencies)</th>
<th>HIV*** infection</th>
<th>Health-care workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria (Td)*,1</td>
<td>For all persons in this group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)3,4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B*,5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A*,6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella (MMR)*,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella*8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program.
**Cerebrospinal fluid.
***Human immunodeficiency virus.
See Special Notes for Medical and Other Indications below. Also see Footnotes for Recommended Adult Immunization Schedule on back cover.

For all persons

For persons lacking documentation of vaccination or evidence of disease

For persons at risk (i.e., with medical/exposure indications)

Contraindicated

### Special Notes for Medical and Other Indications

A. Although chronic liver disease and alcoholism are not indications for influenza vaccination, administer 1 dose annually if the patient is aged ≥50 years, has other indications for influenza vaccine, or requests vaccination.

B. Asthma is an indication for influenza vaccination but not for pneumococcal vaccination.

C. No data exist specifically on the risk for severe or complicated influenza infections among persons with asplenia. However, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia.

D. For persons aged <65 years, revaccinate once after >5 years have elapsed since initial vaccination.

E. Administer meningococcal vaccine and consider *Haemophilus influenzae* type b vaccine.

F. For persons undergoing elective splenectomy, vaccinate ≥2 weeks before surgery.

G. Vaccinate as soon after diagnosis as possible.

H. For hemodialysis patients, use special formulation of vaccine (40 µg/mL) or two 20 µg/mL doses administered at one body site. Vaccinate early in the course of renal disease. Assess antibody titers to hepatitis B surface antigen (anti-HB) levels annually. Administer additional doses if anti-HB levels decline to <10 mIU/mL.

I. For all persons with chronic liver disease.

J. Withhold MMR or other measles-containing vaccines from HIV-infected persons with evidence of severe immunosuppression (see *MMWR* 1998;47 [No. RR-8]:21–2 and *MMWR* 2002;51 [No. RR-2]:22–4).

K. Persons with impaired humoral immunity but intact cellular immunity may be vaccinated (see *MMWR* 1999;48[No. RR-8]).

L. No data to support a recommendation.
Material Safety Data Sheet

I Product:
COMMERCIAL SOLUTIONS® ULTRA CLOROX® GERMICIDAL BLEACH I

Description:
CLEAR, LIGHT YELLOW LIQUID WITH CHLORINE ODOR

Other Designations

<table>
<thead>
<tr>
<th>Description</th>
<th>Distributor</th>
<th>Emergency Telephone Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clorox Liquid Bleach</td>
<td>Clorox Sales Company</td>
<td>For Medical Emergencies, call 1-800-446-1014</td>
</tr>
<tr>
<td>Sodium Hypochlorite Solution</td>
<td>1221 Broadway, Oakland, CA 94612</td>
<td>For Transportation Emergencies, call Chemtrec 1-800-424-9300</td>
</tr>
</tbody>
</table>

II Health Hazard Data

DANGER: CORROSIVE. May cause severe irritation or damage to eyes and skin. Harmful if Swallowed. The following medical conditions may be aggravated by exposure to high concentrations of vapor or mist; heart conditions or chronic respiratory problems such as asthma, chronic bronchitis, or obstructive lung disease. Some clinical reports suggest a low potential for sensitization upon exaggerated exposure to sodium hypochlorite, particularly on damaged or irritated skin. Routine clinical tests conducted on intact skin with Clorox Liquid Bleach found no sensitization in the test subjects. Under normal consumer use conditions the likelihood of any adverse health effects are low.

FIRST AID:

EYE CONTACT: Rinse with plenty of water for at least 15 minutes. Get prompt medical attention.

SKIN CONTACT: Wash skin thoroughly with soap and water.

INGESTION: Drink large amounts of water. DO NOT induce vomiting. Call a physician or poison control center immediately.

INHALATION: If breathing problems develop, remove to fresh air.

III Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>Worker Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hypochlorite</td>
<td>6.0 - 7.35%</td>
<td>Not established.</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>&lt; 0.2%</td>
<td>2 mg/m³ TLV-STE³</td>
</tr>
</tbody>
</table>

³TLV-STE = ACGIH Threshold Limit Value - Short Term Exposure Limit
³PEL = OSHA Permissible Exposure Limit - Time Weighted Average

None of the ingredients in this product are on the IARC, NTP or OSHA carcinogen list.

IV Special Protection and Precautions

Hygienic Practices: Wear safety glasses. With repeated or prolonged use, wear nitrile, neoprene, or butyl rubber gloves. Wash after contact with product. Avoid breathing vapors.

Engineering Controls: Use general ventilation to minimize exposure to vapor or mist.

Work Practices: Avoid eye and skin contact and inhalation of vapor or mist.

KEEP OUT OF THE REACH OF CHILDREN.

V Transportation and Regulatory Data


IMDG: Not restricted per IMDG Code Page 0021 Paragraph 5.3.5.

IATA: Not restricted per IATA D.G.R. Special provision A3.

EPA - SARA Title III/CERCLA:

This product is regulated under Sections 311/312. This product contains no chemicals regulated under Section 313 and contains sodium hypochlorite and sodium hydroxide which are regulated under Section 304/CERCLA.

TSCA Status: All components of this product are on the TSCA Inventory.

VI Spill Procedures/Waste Disposal

Spill Procedures: Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material. For spills of multiple products, responders should evaluate the MSDS’s of the products for incomparability with sodium hypochlorite. Breathing protection should be worn in enclosed, and/or poorly ventilated areas until hazard assessment is complete.

Waste Disposal: Dispose of in accordance with all applicable federal, state, and local regulations.

VII Reactivity Data

Stable under normal use and storage conditions. Strong oxidizing agent. Reacts with other household chemicals such as toilet bowl cleaners, rust removers, vinegar, acids or ammonia containing products to produce hazardous gases, such as chlorine and other chlorinated species. Prolonged contact with metal may cause pitting or discoloration.

VIII Fire and Explosion Data

Not flammable or explosive.

In a fire, cool containers to prevent rupture and release of sodium chloride.

IX Physical Data

Boiling point ...............................................................212°F/100°C (decomposes)
Specific gravity (H₂O=1, 21°C) ..............................................~1.10
Solubility in water ..............................................................Complete
pH .........................................................................................~11.4

©1963, 1991 THE CLOROX COMPANY
DATA SUPPLIED IS FOR USE ONLY IN CONNECTION WITH OCCUPATIONAL SAFETY AND HEALTH DATE PREPARED 4/02

Staff Health in ECE Programs  California Training Institute  California Childcare Health Program  43
WHAT AN EMPLOYER MUST DO:

All employers must provide work and workplaces that are safe and healthy. In other words, as an employer, you must follow state laws governing job safety and health. Failure to do so can result in a threat to the life or health of workers, and substantial monetary penalties.

You must display this poster so everyone on the job can be aware of basic rights and responsibilities.

You must have a written and effective injury and illness prevention program for your employees to follow.

You must be aware of hazards your employees face on the job and keep records showing that each employee has been trained in the hazards unique to each job assignment.

You must correct any hazardous condition that you know may result in serious injury to employees. Failure to do so could result in criminal charges, monetary penalties, and imprisonment.

You must notify the nearest Cal/OSHA office of any serious injury or fatality occurring on the job. Be sure to do this immediately after calling for emergency help to assist the injured employee. Failure to report a serious injury or fatality within 8 hours can result in a minimum civil penalty of $5,000.

WHAT AN EMPLOYER MUST NEVER DO:

Never permit an employee to do work that violates Cal/OSHA law.

Never permit an employee to be exposed to harmful substances without providing adequate protection.

Never allow an untrained employee to perform hazardous work.

EMPLOYEES HAVE CERTAIN RIGHTS IN WORKPLACE SAFETY & HEALTH:

As an employee, you (or someone acting for you) have the right to file a complaint and request an inspection of your workplace if conditions are unsafe or unhealthy. Contacting the local district office of the Division of Occupational Safety and Health (see list of offices). Your name is not revealed to Cal/OSHA, unless you request otherwise.

You also have the right to bring unsafe or unhealthy conditions to the attention of the Cal/OSHA investigator making an inspection of your workplace. Upon request, Cal/OSHA will withhold the names of employees who submit or make statements during an inspection or investigation.

Any employee has the right to refuse to perform work that would violate a Cal/OSHA or any occupational safety or health standard or order where such violation would create a real and apparent hazard to the employee or other employees.

You may not be fired or punished in any way for filing a complaint about unsafe or unhealthy working conditions, or for using any other right given you by Cal/OSHA law. If you have been fired or punished for exercising your rights, you may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement (State Labor Commissioner) or the San Francisco office of the U.S. Department of Labor, Occupational Safety and Health Administration. (Employees of state or local government may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement. (Employees of state or local government may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement.)

WHEN CAL/OSHA COMES TO THE WORKPLACE:

As an employee, you have the right to refuse to perform work that would violate a Cal/OSHA or any occupational safety or health standard or order where such violation would create a real and apparent hazard to the employee or other employees. You may not be fired or punished in any way for filing a complaint about unsafe or unhealthy working conditions, or for using any other right given you by Cal/OSHA law. If you have been fired or punished for exercising your rights, you may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement (State Labor Commissioner) or the San Francisco office of the U.S. Department of Labor, Occupational Safety and Health Administration. (Employees of state or local government may file a complaint about this type of discrimination by contacting the nearest office of the Department of Industrial Relations, Division of Labor Standards Enforcement.)

To keep the workplace and your coworkers safe, you should tell your employer about any outstanding issues resulting in an injury or illness to people.

While working, you must always obey state job safety and health laws.

HELP IS AVAILABLE:

To learn more about job safety rules, you may contact the Cal/OSHA Consultation Service for free information, required forms and publications. You can also contact a local district office of the Division of Occupational Safety and Health. If you prefer, you may retain a competent private consultant, or ask your workers’ compensation insurance carrier for guidance in obtaining information.