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Ask Dr. Sue Your Health and Safety Questions

Reducing the Risk of Injury in Child Care

by Susan Aronson, MD

Injury prevention is a major theme in the soon-to-be-published second edition of *Caring for Our Children: Health and Safety Performance Standards for Out-of-Home Child Care*. Both facility maintenance and staff performance contribute to safe and healthy child care. Research findings tell us what commonly causes injury of young children and gives caregivers opportunities for prevention by practicing and teaching safety. Significant risks can be reduced, supervision planned, and safety taught.

Injury Risks

What are the most significant risks? Except for those states where home swimming pools are common, motor vehicles still cause more child deaths and disability than any other product or medical problem after the newborn period. Both as pedestrians and passengers, children are no match for the speed and mass of cars and trucks. They need restraints to hold them securely and safely in place when they ride, and they need separation from motor vehicles where they walk and play.

Once children arrive at the child care facility, the most common and most significant injuries occur in active play areas. Although playgrounds are the focus of most of these injuries, the same types of gross motor challenges occur when children play indoors on equipment that encourages large muscle activity. Not surprisingly, more active play injuries occur in summer and fall, and during mid-morning and mid-afternoon. The most common cause of injury in active play areas is falls from climbing structures to surfaces that do not absorb impact forces. As the heaviest part of the child's anatomy, the head is the most commonly injured body part in these falls.

In previous articles in *Child Care Information Exchange*, active play injuries have been attributed to the "Dirty Dozen" — the 12 most common playground hazards. Paying attention to these common sources of injury pays off: surfacing under and around climbable equipment, fall zones, protrusions and entanglement, entrapment, developmentally appropriate equipment, sufficient and properly spaced equipment, trip hazards, pinch-sheer-crush points, barriers, safe equipment, maintenance, and supervison.

Although active play injuries are more frequent in group care facilities, there are other causes of injury. Anything that interferes with the child's ability to breathe can be lethal: choking, strangulation, entrapment, and suffocation. Airway injuries are predictable and preventable: young children put objects in their mouths that they cannot remove easily or swallow; they wrap something around their necks that can get caught on something; their bodies slip through spaces that are too small for their heads; they get trapped in a space or on a surface which limits their access to fresh air. Children who reach four years of age are at the greatest risk because most lack the experience and skills to avoid or get themselves out of situations that may compromise their breathing.

Many SIDS deaths in child care can be prevented by putting babies to sleep on their backs. It's too bad that babies are not born with a sign on their tummies that says: "This side up." Unless a child has a medical reason documented by a physician for prone or side sleeping, all infants should be put to sleep only on their backs. The national SIDS program at the National Institute of Child Health and Human Development has doorknob hang tags that remind caregivers to put babies on their backs to sleep. A good use of the hang tag is to put one permanently on each infant crib where caregivers and parents are most likely to see it.

Toys and foods that can get stuck in a child's airway should be off limits to

children under four years of age. Toys that are known problems include marbles, jewelry, latex balloons, game parts, and any other object that is less than one inch in diameter and less than two inches long. Foods that cause more airway problems than any others are: hot dogs, chunks of meat, whole grapes, nuts (especially peanuts), raw carrot chunks, and hard candy.

Poisoning is another common cause of injury to young children. Caregivers contribute to this risk when they expose young children to hazardous chemicals, poisonous plants, and incorrect use of medication in child care settings. Toddlers are the most likely to be poisoned. Most pediatric calls to Poison Control Centers are about ingestions of over-the-counter medicines or plants by toddlers.

Careful planning for handling toxic substances and medications in child care facilities is essential. To reduce the risk of poisoning in the child care facility:

- If the manufacturer's "Material Data Safety Sheet" for any product used in the child care facility describes toxic effects, ask yourself whether you need a chemical product to do the job at all. If you do need to use a chemical product, replace toxic ones with a non-toxic substitute.
- Lock all toxic substances in a cabinet that is inaccessible to children.
- Make sure all toxic substances are clearly labeled.
- When toxic substances must be stored in the same room as food items, store them in a separate and clearly labeled cabinet away from food items.
- Store chemicals as any other toxic material — in their original containers, clearly labeled, and under lock and key.
- Establish and follow medication administration policies for child care. Some children will need medicines during the day, but whenever possible, try to have medicines given at home.

Supervision

In all situations an adult must be able to hear and see the children and reach them promptly if intervention is needed. In the second edition of Caring for Our Children, the standard on supervision sets the boundaries for adults who care for children in child care settings:

- For infants, toddlers, and preschool children — by sight and hearing at all times, even when the children are in sleeping areas, and always on the same floor level as the children. Children who are presumed to be sleeping might be awake and in need of adult attention. Risk-taking behavior must be detected; and illness, fear, or disruptive behavior must be managed. In case of fire, a supervising adult should not need to climb stairs, use a ramp or an elevator to help evacuate children who cannot easily get themselves out of the building. Stairways, ramps, and elevators in buildings usually become impassable in a fire or building emergency because they are pathways for smoke and poisonous gases.
- For school-age children — mature school-age children may participate in activities off the premises with written approval by a parent and by the caregiver. Children who can use toilet facilities without assistance do not need direct visual observation while they are using the toilet.

In all situations and for all age groups, caregivers must know the whereabouts of every child being supervised at all times. In a group, there is no substitute for counting the children on a scheduled basis, at every transition, and whenever leaving one area and arriving at another. Maintaining developmentally appropriate child:staff ratios and competent supervision during all hours of operation, including indoor and outdoor play, field trips, and during drop-off and pick-up times can be challenging. Special assignment of staff to high risk areas such as climbers, entrances and exits in play areas is essential.

In addition to counting, active and positive supervision involves:

- Knowing each child's abilities.
- Establishing clear and simple safety rules.
- Being aware of potential safety hazards.
- Standing in a strategic position.
- Scanning play activities and circulating.
- Focusing on the positive rather than the negative to teach a child what is safe for the child and other children.

Child care directors need to work with caregivers to see how to reduce risk of injury. For example, convex mirrors increase visibility around corners, and baby monitors provide some measure of awareness of what is going on in toilet rooms that children use by themselves. For preschool age and older children, caregivers can actively teach safety to the children using well-designed curricula such as RiskWatch® — supported by a coalition of America's most authoritative injury prevention professionals and available for purchase from the National Fire Prevention Association at (800) 344-3555.

Provide Staff Training

The American Red Cross Child Care Course has a unit on preventing injury. Where local chapters of the ARC offer this training, use it to orient new staff. In addition to the ARC course, materials from the Consumer Product Safety Commission give basic information about hazards. At a more advanced level, several video resources are available to help with staff training.

The video series called "Caring for Our Children" illustrates the national health and safety performance standards and is still an excellent tool. This six-part video series is inexpensive and available from the American Academy of Pediatrics, (800) 433-9016, www.aap.org and from NAEYC, (800) 424-2460, www.naeyc.org.

The video called "Safe Active Play" is available from the same sources. Karen Sokal-Gutierrez, MD, MPH has just completed a new accompanying training manual that includes training activities as well as guidance for directors on working with staff to make active play areas safe. The modules in the training manual are full of good information and provide a text, training activities and implementation activities. Some of the materials could be used as handouts, some as reference material for an instructor or by a director who want to design the training for the staff herself. The manual is available from the same sources as the videotape.

Learn From Injury Experience

When an injury occurs, the staff are usually upset and may be more responsive to injury prevention activities at that time. Although prevention is best, an injury experience is a teachable moment. When injuries occur, document the circumstances to inform the parent, provide information in the event of a liability claim, and point the way for changes that will keep that type of injury from happening again. Three-copy injury forms can do this job — one to the parent, one to the child's file, and one to an injury log that the director reviews every three to six months to see what injuries are occurring and how to prevent them.

When reviewing injury reports, ask:

- Can children be taught to avoid the risk that caused the injury?
- Can the facility be arranged or changed to reduce the risk?
- Can supervision arrangements be modified so that an adult can intervene before injury occurs?
- Was appropriate first aid provided?

Most injuries are preventable. Reduce risk in your facility: plan for injury-reducing supervision, educate children, staff and parents. Everyone needs to work together to keep children safe.

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