

INJURY PREVENTION IN PRESCHOOL CHILDREN

The greatest risk to children's health is not cancer, heart disease, or any other form of illness. The leading killer of children in the United States is injury. In a single year, 10,000 children under age 15 die, 30,000 are permanently disabled, and 16 million require emergency medical care because of injuries. Children under age 4 are at special risk.

In the past, injury was thought to be due to "accidents." This term is no longer used in the field of injury prevention because it implies that injury is a random, unpredictable event. In fact, the large majority of childhood injuries can be predicted and prevented by parents.

Behavior therapists have traditionally advocated three levels of intervention for parents in dealing with small children.

- Change the child's surroundings, also known as the environment;
- Change the parent's own way of dealing with the child;
- As a last resort, change the child's behavior.

It is clear that parents or teachers can increase children's safety skills and that such teaching should begin early in life and continue throughout childhood.

However, researchers believe that children under the age of 4 should never be made responsible for their own safety behavior. Whenever there is a choice between changing the environment or changing behavior, changing the environment is a better solution because it requires less energy, less vigilance, and less planning to execute. However, in many cases no environmental change is possible. In such cases, safety must rely on a parent's protective behavior. Below, some of the leading causes of injury to children are detailed.

Drowning

Drowning is the most frequent cause of death in children under age 4. Drowning in swimming pools is common, but children can drown in any body of water, from an ocean to an irrigation ditch. Indoor drowning in seemingly harmless situations also occurs. Being left alone even for a few moments in the bath is enough for infant drowning to occur. Other sources of water such as toilets or buckets are hazardous when crawling infants grab them when standing and then tumble forward.

Environmental Changes

Fencing around pools that cannot be readily opened by children has been shown to reduce drowning. A complete fence, rather than one side of the house opening onto a three-sided fence, is necessary to protect children in the home.

Inflatable toys may lure children toward the water without protecting them and thus should never be left in the pool. Safety-approved flotation devices should be worn by all members of a boating group, especially small children. Latches for toilet lids can be purchased and buckets can be emptied between use or placed out of reach.

What Is Cognitive Behavior Therapy?

Behavior Therapy and Cognitive Behavior Therapy are types of treatment that are based firmly on research findings. These approaches aid people in achieving specific changes or goals.

Changes or goals might involve:

- **A way of acting:** like smoking less or being more outgoing;
- **A way of feeling:** like helping a person to be less scared, less depressed, or less anxious;
- **A way of thinking:** like learning to problem-solve or get rid of self-defeating thoughts;
- **A way of dealing with physical or medical problems:** like lessening back pain or helping a person stick to a doctor's suggestions; or
- **A way of coping:** like training developmentally disabled people to care for themselves or hold a job.

Behavior Therapists and Cognitive Behavior Therapists usually focus more on the current situation and its solution, rather than the past. They concentrate on a person's views and beliefs about their life, not on personality traits. Behavior Therapists and Cognitive Behavior Therapists treat individuals, parents, children, couples, and families. Replacing ways of living that do not work well with ways of living that work, and giving people more control over their lives, are common goals of behavior and cognitive behavior therapy.

HOW TO GET HELP: If you are looking for help, either for yourself or someone else, you may be tempted to call someone who advertises in a local publication or the Internet. You may, or may not, find a competent therapist in this manner. It is wise to check on the credentials of a psychotherapist. It is expected that competent therapists hold advanced academic degrees and training. They should be listed as members of professional organizations, such as the Association for Behavioral and Cognitive Therapies or the American Psychological Association. Of course, they should be licensed to practice in your state. You can find competent specialists who are affiliated with local universities or mental health facilities or who are listed on the websites of professional organizations. You may, of course, visit our website (www.abct.org) and click on "Find a CBT Therapist."

The Association for Behavioral and Cognitive Therapies (ABCT) is an interdisciplinary organization committed to the advancement of a scientific approach to the understanding and amelioration of problems of the human condition. These aims are achieved through the investigation and application of behavioral, cognitive, and other evidence-based principles to assessment, prevention, and treatment.

A five-gallon bucket is particularly risky because it tends not to tip when a child falls into it. Such buckets might well be avoided entirely by parents of small children. Finally, bathtubs should be drained immediately after use.

Parental Behavior

There is no substitute for nonstop, vigilant supervision when a child is in or near water, either in the bath or by a backyard wading pool. Tragedies can occur when a parent answers the telephone or goes to the door for only a moment.

Letting the bell ring or taking the child in a towel with you is the only safe alternative. No amount of experience or swimming lessons will make a small child safe in the water without adult supervision.

Motor-Vehicle Injuries

The second leading cause of death for small children is automobile crashes. Properly used restraints can reduce serious injury by up to 70%. A child riding on a lap is not protected but is at double risk: Not only is it physically impossible for the parent to keep the child from being thrown into the windshield and dashboard, but if the adult is unbelted, the force of the adult's body may crush the child. Although laws requiring seat-belt use are now in force in all 50 states, many parents fail to use safety restraints. This is the simplest and easiest way to keep a young child safe.

Children at this age level are less likely to be injured as pedestrians than are older children, as parents correctly recognize that young children cannot cross streets safely in the absence of an adult. However, toddlers are more likely than older children to wander into the street or driveway; and, because toddlers are small, drivers are more likely to back over them when leaving a garage or driveway.

Environmental Changes

Infant safety seats typically face the rear. Toddler seats more often face forward. It is central to the child's safety that the correct seat for the child's body weight be used, that the correct routing of the seat belt around the safety seat be followed, and that straps be adjusted to the child's body and used (e.g., shoulder straps should not be slipped off and lap straps should go across the thighs, not the abdomen).

A regular seat belt is not safe for a child if the shoulder strap cuts across the child's neck or face when fastened. A lap-only belt in such a case is safer, although it is not as protective as an age-appropriate safety seat.

Environmental barriers such as fences between traffic and areas where children play (including driveways) are a preferred strategy. Research suggests that minivans and other vehicles with less visibility when backing up may be poor choices in a family with very young children.

Parental Behavior

Parents should have a rule that the car does not move until the child is secured in a safety seat. Children have been killed as their car pulled out of a driveway and the child slipped out of the door.

Most children who have been in a safety seat from birth may never protest using the restraint. Others may undo their restraint if not supervised. Firmness, as well as contingent reward (receiving a reward for correct behav-

ior) for use and sufficient entertaining attention when the child remains in the restraint helps.

Research has shown that children are better behaved in the car when wearing safety restraints. Parents are also less likely to be distracted by a child in a restraint.

Parents can also keep their children (and others' children, too) safe by not driving after drinking alcohol, when very tired, or when taking medication that limits judgment or reaction time.

When anyone is entering or leaving a driveway, picking the child up or holding his or her hand is a sensible strategy.

Burn Injuries

Most fatal burns come from house fires. Flame burns occur when a child's clothing is exposed to a flame. Scald burns from hot liquids occur at much lower temperatures and more quickly in infants and toddlers than in older children and adults. Scalds can occur from plain tap water, from hot-water vaporizers, or from hot food on the stove or beverages at the table.

When formula is heated in the microwave, the container can feel only warm when the liquid inside is actually hot enough to burn infants' or toddlers' airway sufficiently to make them swell shut. Carelessly extinguished cigarettes or cigarette lighters can also burn toddlers who are fascinated by glowing or shiny objects.

Environmental Changes

All homes should be equipped with several smoke detectors with batteries that are checked frequently. Selecting an anniversary such as New Year's Day or the Fourth of July to sound the smoke alarm makes it easier to remember. Outside windows in rooms where infants and toddlers sleep should be specially marked to alert firefighters.

Children's clothing, especially sleepwear, should be close fitting and flame retardant. Setting the thermometer on the family water heater to 120° – 125° F can eliminate scald burns from the tap water and putting guards on the stove front can protect small exploring hands from touching a hot pan.

Hot-water vaporizers should never be used with children; cool-mist vaporizers are just as effective. Food or liquid heated in a microwave should be stirred well and sampled by an adult before it is given to a child.

Parental Behavior

Parents should have an escape route planned from each room in the house and should exit low (below the smoke) and immediately with their child at the first sign of a fire. Parents should test carefully to ensure bath water is only tepid prior to putting a child in the bath.

Because small children reach and grab for things, hot beverages should never be consumed or placed near a small child. Cooking should be done away from children, and pot handles should be turned in so that the pot cannot be overturned. Matches, lighters, and lighted cigarettes should never be left where a child can reach them.

Poison

Poisoning deaths have diminished in recent years due to child-resistant packaging, limits on the amount of medication in a single container, reductions of some toxic chemicals (e.g., lead), and improved poison control cen-

ters. However, poisonings from cleaning products, solvents, and medications continue to occur.

Environmental Changes

Before an infant can crawl, all poisonous materials should be placed in a high cupboard or a secure latch should be installed on the cabinet where they are kept. Medications for both humans and pets should be stored in child-resistant containers in a locked cabinet. Health aids that pose a risk (like iron compounds) should be similarly stored. Flavored children's medications (e.g., cough syrups) are particularly likely to be swallowed if left where the child can find them.

In addition to all bathroom and kitchen cleaners, substances such as drain cleaners, petroleum products, cosmetics such as lemon-scented nail polish remover, plant fertilizers, and turpentine should be rounded up and safely stored.

Many poisonings occur from a mother's or grandmother's purse, which might contain cosmetics and medications; if these are kept in a purse, they should be placed in child-resistant containers and be safely stored.

Parental Behavior

Placing materials in child-resistant containers, securing latches, and taking other similar precautions are time-consuming but vital steps. Supervision of crawling infants and toddlers is also essential in any new location where toxic materials such as cigarettes, pesticides, or poisonous plants might be available.

During the first 18 months of life, mouthing objects is one important way a child explores the world, and older toddlers still taste interesting-looking objects.

Knowing the poison-control center number in an emergency and having syrup of ipecac in the house to induce vomiting (only if so instructed) can also prevent a serious consequence should a poisoning occur.

Choking and Suffocation

There are several sources for injury due to insufficient oxygen. Choking can occur with common foods (foods that most often cause choking include soft, pliable foods such as hot dogs or grapes and hard, slick, round foods such as candies or nuts). Similarly, adult medications, pieces of balloons, foreign objects from toys or from off of the floor can block a child's airway.

Strangulation can occur when the cord holding a baby's pacifier or the cord from window blinds wraps around the child's neck or when a child's head is wedged in between slats of a crib or a gate large enough to allow the child's head to pass through.

Children can suffocate in small refrigerators, under mechanically powered garage doors, or in old trunks.

Environmental Changes

Recognition that any object large enough for a child to crawl into is a hazard that should be locked shut or removed is a first step. Examining all children's furniture (such as cribs with slats greater than 2 3/8 inches apart) and other objects that might trap a child's head is another. A pacifier or other toy should never be attached to the child with a string. Similarly, the loop from

blinds is also a potential hazard that can be removed by simply clipping the loop above the child's reach.

Parental Behavior

Selection of foods that do not pose a risk or making risky foods harmless (i.e., slicing hot dogs lengthwise, cutting grapes into pieces, buying flat candy rather than round) will help avoid injury. Infants and small children can choke on adult-sized medications such as aspirin tablets; only liquids should be given to infants and liquids or chewable medications to toddlers after they have teeth.

The warning with some toys, "Not recommended for children under age 3," should be taken seriously. These toys may have small parts that could choke an infant.

Similarly, common household objects such as a thimble or outdoor objects such as pebbles can choke a young child. An area must be swept clear of any small objects or constant vigilance with a crawling or toddling child is necessary. Automatic garage-door openers need to be checked periodically to ensure that the door maintains sufficient sensitivity to reverse itself quickly should it encounter any object blocking its closure.

Conclusions

There are many other dangers to a small child within the home (e.g., firearm injury, electrocution) and outside the home (e.g., tricycle injuries, animal bites). In general, environmental barriers between the child and the hazard, removal of the hazard when possible, and the use of consistent parental supervision are most important. As children grow, their knowledge and use of safety skills should be repeatedly tested before parental supervision is reduced.

Once safety becomes a habit, it becomes easy to change one's lifestyle. Altering one's environment and behavior to promote safety can become second nature.

Because injury continues to be the leading cause of death in the U.S. up to age 40, what better legacy to leave a child than a healthy respect for hazards that result in injury and the knowledge and motivation to ensure safety at each stage in development?

For more information or to find a therapist:

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**ASSOCIATION for BEHAVIORAL
and COGNITIVE THERAPIES**

305 Seventh Avenue
New York, NY 10001
212.647.1890
www.abct.org