Humpty Dumpty Safe on the Wall

A child's natural curiosity can lead to both fabulous adventures and perilous dilemmas. Exploring the world leads children to climb, crawl, touch and taste just about everything they come in contact with. Their curiosity leads to experiences that help them learn about their world and test their limits, experiences that promote healthy growth and development. Many soar through life untouched by bumps and bruises while others break bones or wind up in hospital beds. 5,526 children died from injuries in 2001. 92,000 were permanently disabled. Unintentional injuries are the leading cause of death in children. Most injuries occur under conditions that are predictable. They occur in situations where the injury could have been prevented.

Falls from playground equipment are the leading cause of injury to children in child care. The most severe occur when children fall from climbing structures onto hard surfaces. Head injuries result in most of the fall-related deaths and disabilities. The severity of injury is determined by two factors. They are the distance the child falls to the landing surface and the ability of the surface to absorb the impact of the fall. Absorbency depends on both the kind of surfacing used and its depth. In 2002, half of the 2.3 million children treated for playground injuries were preschoolers. Some experts believe that lowering the height of play equipment and using impact-absorbing materials can prevent 90% of injuries. In North Carolina, the rate of playground related injury in childcare dropped by 22% after the state required all child care facilities to conform to Consumer Product Safety Commission guidelines addressing protective surfacing on playgrounds.

Broken bones, often the result of these falls, are the 4th most common injury to children under six. Broken bones are typically stabilized with a cast. Though casts come in a rainbow of fun colors, and provide a cool drawing pad for friends, they also restrict movement, irritate skin and make it difficult to participate in activities. Children's bones usually heal quickly but injury to the bone's growth plate can cause bones to grow more slowly or grow at an odd angle.

Most injuries occur in situations where risks can be anticipated. When risks are known, prevention strategies can be employed. Caregivers can look at the physical environment and at each individual child to identify likely risks. Risk depends on the environment, as well as the child's age, interests, and temperament. For instance, the skills of infants and toddlers can change from day to day. An infant's first experience rolling over could result in a fall from the changing table. Because rolling over is an infant behavior that can be anticipated, a guideline can be developed to prevent the fall. A toddler just learning to climb could be found teetering on a table top. Because toddlers can be expected to climb, caregivers can prevent injury by providing a safe climbing structure and appropriate supervision. With common sense, supervision and imagination children can be protected from the pain and discomfort of most childhood injuries. Children will thrive in a safe, stimulating environment where exploration leads to discovery not harm.

References and more information:
Bumps, Bruises, and Broken Bones

Participation in gross motor play provides young children with benefits such as physical fitness, skill development, and stress relief. Caregivers encourage and model physical play every day through a variety of activities both outside and in. As children play actively, injuries are bound to occur, and caregivers must be prepared to respond appropriately. Child care facilities should have a written policy in place which contains procedures for first aid, an emergency plan for transporting a child to a hospital and guidelines for contacting parents.

Many times a child's injury will be no more severe than a bump, bruise or scratch. On occasion, a child may suffer a more serious injury such as a broken bone (fracture) or a head injury.

External head injuries are usually cuts or scratches to the scalp. Many blood vessels are located in the scalp. This can cause minor external head injuries to bleed a great deal and may make the injuries appear worse than they are. Minor head injuries will heal on their own. Deep or severe cuts will require medical treatment.

Internal head injuries can involve bruising of the brain or damage to the blood vessels inside the skull. The brain is surrounded by spinal fluid and blood vessels and is protected by the skull. A blow to the head can cause the brain to be knocked around inside the skull. This can cause minor to severe injury to the brain and blood vessels, depending on the force of the blow.

Head Injury Symptoms that require immediate medical attention:

- Unconsciousness
- Abnormal breathing
- Obvious serious wound or fracture
- Bleeding or clear fluid from the nose, ear, or mouth
- Disturbance of speech or vision
- Pupils of unequal size
- Weakness or paralysis
- Dizziness
- Neck pain or stiffness
- Seizure
- Vomiting more than two or three times

A concussion is a type of internal head injury that is caused by a significant blow to the head and results in a temporary loss of normal brain function.

Concussion symptoms that require immediate medical attention:

- “Seeing stars”, feeling dazed, dizzy or light-headed

First Aid for Head Injuries:

- Put on non-porous gloves and apply pressure to the wound with a bandage to control bleeding.
- If the wound is minor and bleeding has stopped, clean the wound with soap and water and apply a cold pack.
- If a skull fracture is suspected, DO NOT apply pressure to the wound to stop bleeding. DO NOT clean the wound. Cover the wound with a clean bandage. DO NOT move the head.
- If the head injury is serious, follow the facility's emergency care plan and transport the child to the hospital.
- Inform the parents of any injury.
- For the first 24-48 hours, wake a sleeping child every 2-3 hours. Assess the child's mental capacity by asking the child a simple question or giving him or her a simple command to follow. If the child loses mental function, vomits, or loses consciousness, follow the...
facility’s emergency care plan and transport the child to the hospital.

Most head injuries are not serious and heal with rest. Let a brain injury heal completely before letting the child engage in active play. Severe and sometimes permanent damage can occur to the brain if it is injured again before healing completely.

**Broken Bones**

Children can fall from playground equipment during active play. The greater the distance of the fall, the greater the impact will be from the fall. This increases the potential for injuries that may result in broken bones.

Bone breaks are also known as fractures. **Closed fractures** are those in which the skin is not broken. **Open fractures** involve a break in the skin through which a portion of the bone sticks out. Open fractures expose the bone and surrounding tissue to possible infection. A single fracture is a single break of one bone. A multiple fracture occurs when there are two or more breaks along the same bone.

Broken bones are "set" or aligned by placing the broken pieces of the bone in their original position. Once in place the bone pieces can then grow back together in their normal position. Sometimes the bone can be set easily and quickly. With complicated fractures, correcting the break may require surgery.

After broken bones are set properly, a cast or splint is usually placed around the bone. A plaster cast is made of a thick paste, which dries to a hardened surface. A synthetic cast, often made from fiberglass, weighs less and can be removed by the patient temporarily to bathe, etc. The younger the person is, the more quickly the broken bone will heal. For a young child a bone may heal in only 3 weeks, while a teenager’s broken bone may take six weeks to heal.

**Recognizing Broken Bones**

A fracture is easy to recognize when the bone is misshapen or pokes through the skin. When it is hard to tell if a bone is broken, x-rays may be taken to see whether or not the bone was broken. A broken bone should be suspected if:

- a “snap” or a grinding noise is heard during the injury.
- bruising, swelling, or tenderness occurs in the area around the bone.
- a child complains of a strange feeling (like “pins and needles”) in the limb.
- a child favors one limb, cannot put pressure on a hand, foot or other body part, switches hands to perform tasks, or does not participate in active play.
- child is unusually fussy after a fall, or cannot be calmed.

**First Aid for Broken Bones**

- Keep the injured limb in the position in which it is found.
- Put padding around it to keep it from moving. An adult should stay with the injured child until help arrives.
- Put on non-porous gloves and apply light pressure with a clean bandage to open fractures that are bleeding.
- Inform the parents of the injury.
- If the broken bones comes through the skin, follow the facility’s emergency care plan and transport the child to the hospital.

**Prevention for Head Injuries and Broken Bones**

- Closely supervise children on climbing structures, swings and riding toys.
- Make sure children use appropriate protective equipment such as helmets for biking, skateboarding, or roller skating/blading.
- Maintain needed depth of absorbent surfacing under playground equipment.
- Only allow children to play on and with age-appropriate equipment.
- Transport children in age-appropriate car seats and booster seats.

**References:**


Week of the Young Child is April 3-9
“Children’s Opportunities – Our Responsibilities”

Recommit to ensuring that every child experiences the type of early environment that will promote learning. Try one of the following NAEYC recommended health activities:

• Take a field trip where children have fun exploring health information: doctor or dentist's office, farmer's market or grocery store, or a dairy farm.
• Form a health and safety task force of parents, staff and community members who will review the facility's health and safety policies and organize clean-up days.
• Support TV-Turnoff Week, April 25-May 1, by sending home ideas for activities to do instead of watching TV.
For more ideas go to www.naeyc.org/about/woyc/facts.asp.

Keep the Promise to NC's Young Children Rally
April 19  ~ 10 am - 1 pm • Halifax Mall in Downtown Raleigh
Join hundreds of child advocates, child care professionals, parents and young children for the 3rd annual Keep the Promise to NC's Young Children Day. There will be children's activities, a Call to Action, and visiting with legislators. Need more information? Contact Suzanne Metcalf at 919-231-5854.

Playground Safety Week: April 25-29
The four major areas of playground safety include: Supervision, Age-appropriate Design, Fall Surfacing and Equipment Maintenance. Use the following list to check the safety of a child care playground environment.

Supervision
• Enough adults supervising play
• Children can be easily seen
• Crawl space can be supervised
• Supervision rules posted

Age-appropriate Design
• Separate play space for: infants and toddlers, preschoolers, school-age children
• A turn-around space on paths used for riding toys is provided
• Guardrails installed where needed
• Proper use of equipment monitored
• Equipment is age-appropriate

Fall Surfacing
• Absorbent surfacing provided under equipment
• Loose fill surfacing is maintained at appropriate depth
• Height of equipment is 8 feet or lower
• Six foot fall zones have appropriate surfacing
• Concrete footings of equipment are covered
• Fall zones are free of foreign objects

Equipment Maintenance
• Equipment is free of broken parts
• Equipment is free of missing parts
• Equipment is free of protruding bolts
• Equipment is free of noticeable gaps
• Equipment is free of head entrapment spaces
• Equipment is free of rust
• Equipment is free of splinters
• Equipment is free of cracks and holes
If needed, develop a playground improvement plan. Fix hazards immediately. For more information go to www.playgroundsafety.org/safety_week/.

Reference:
US Child Care Grade, National Program for Playground Safety,
How Safe is Your Home?

1. What are the most common causes of suffocation in infants?
   a. respiratory illness and asthma
   b. vomiting and choking on formula while sleeping on their back
   c. dry cleaning bags, trash bags, and large food storage bags

2. Falls from second story windows are a common cause of injury and death to young children. Window guards are needed because:
   a. children can fall out of windows that are open as little as 5 inches.

3. Children under 5 are most likely to be trapped and suffocated in:
   a. cars and minivans on hot days.
   b. refrigerators, dryers, freezers, and coolers.
   c. garages because of malfunctioning garage door openers.

4. What item can cause entrapment (strangulation) of a child's head, leading to death?
   a. tire swings
   b. recliners
   c. infant swings

5. Children are at risk for losing fingers while playing near:
   a. exercise bicycles.
   b. oven doors.
   c. fireplaces.

6. Infants can drown in 2 inches of water found in a container like a bucket, bathtub, or toilet. True or False
   True

7. Which of the following can be a fire hazard?
   a. stored cooking oil, latex paint
   b. nightlights, clothes dryers
   c. ovens, microwaves

8. What is NOT a potential poisoning hazard to young children?
   a. secure, locked medicine cabinets
   b. household cleaners
   c. purses and briefcases

How did you do?
1. (c) Infant suffocation occurs when infants fall against or into dry cleaning bags, trash bags, and food storage bags that are commonly on or near an adult bed upon which an infant is placed. Keep plastic bags out of the reach of young children.
2. (d) Window guards are recommended for any windows above the first floor for all of the reasons listed above.
3. (b) Children under 5 are most likely to be trapped and suffocated in chest or upright freezers, refrigerators, clothes dryers, and large chest coolers. Lock or remove extra appliances and supervise children near appliances that are used regularly.
4. (b) An increase in head injuries and deaths have been noted from young children playing on recliners. When the footrest portion is up, a child climbing on the footrest can fall between the base of the chair front and the footrest, becoming trapped in the folding mechanism of the footrest as it closes. Adult supervision around such furniture is needed.
5. (a) Children have lost fingers while playing near moving exercise bicycles by inserting their fingers in the fast-moving parts. Children should not be allowed to play near any electrical or fast-moving exercise equipment.
6. (True) Young children's heads are heavy. Once they move forward to explore water in a container like a bathtub, bucket, or toilet, they are likely to fall in face first and be unable to get out. Children should be kept from, or supervised, near water.
7. (b) Lit candles, smoking in bed, and clothes dryer ignition are all known causes of house fires. Nightlights can also ignite bedding or curtains if plugged in near fabric.
8. (a) Residents and visitors may have medication in purses, briefcases, or diaper bags. These and hazardous household cleaners should be kept out of children's reach.

For more information see the following websites:
Childproofing Cut and Carry Checklist
http://kidshealth.org/parent/misc/childproofing_cutout.html

Household Safety Checklists
http://kidshealth.org/parent/firstaid_safe/home/household_checklist.html

References:

What’s in a Bone?

Bones make up the human skeleton, the frame that supports the body, anchors muscle, and protects organs and the softer parts of the body. It is living, growing tissue made up of the protein collagen and the mineral calcium phosphate, which combine to form a latticework structure capable of bearing large amounts of weight.

Strong dense bones keep the immune system up and running. Bone marrow, found at the center of bones, provides the body with red blood cells. These red cells carry oxygen to all parts of the body including the body’s white blood cells. White blood cells, a critical part of the immune system, help the body fight disease.

Bones are continually changing through a process called remodeling. In younger people, the body makes new bone faster than it breaks down old bone. Peak bone mass is reached by the mid 30s after which more bone is lost than regained. Adequate supplies of vitamin D and calcium help maintain bone and reduce bone loss. At menopause, women begin to lose bone mass at a rate of 1-3 percent per year. By age 65, men begin to lose bone mass at the same rate as women. Building dense strong bones early in life is like building a “bone bank”, a rich “deposit” of bone to support the body’s needs for decades.

What is Osteoporosis?

Osteoporosis, (porous bones), is a condition where bones become weak and brittle. Bones become so weak, even mild stresses like bending over or lifting a box can cause them to break. Osteoporosis is primarily a disease of older women, but it also affects children and men.

The risk of developing osteoporosis depends on how much peak bone mass was attained earlier in life and how rapidly it is lost later on. Bone health can be improved and maintained through regular weight bearing exercise combined with adequate amounts of calcium and vitamin D. Medications that help build bones are available for people with osteoporosis.

Calcium & Vitamin D Build Bone

Over 99% of the body’s calcium is found in bones and teeth. The body continually takes calcium from the bones to maintain the heart, muscles and nerves. Eating a diet rich in calcium and vitamin D helps replenish necessary minerals and maintain bone density. Adults ages 19-50 need 1,000 mg. of calcium per day. Adults ages 51 and up need 1,200 mg. per day. The body needs vitamin D to absorb calcium.

Good sources of calcium

- Milk
- Yogurt
- Cheese
- Fish, especially sardines and salmon
- Greens, especially collards

Tips for increasing calcium

- Add nonfat powdered milk to casseroles and soups
- Eat calcium fortified cereal and bread

Good sources of vitamin D

- Fifteen minutes in the sun each day
- Egg yolks and liver
- Dairy products supplemented with vitamin D

Avoid the Calcium Culprits

Certain foods and substances increase the amount of calcium excreted from bones. Limit or avoid:

- Excessive protein
- Tobacco use
- Caffeine
- Soft drinks
- Alcohol

Weight Bearing Exercise

Just like muscles, bones become strong when they are exercised. When a person lifts weights or does push ups, the muscles become visibly larger. The changes in bones cannot be seen, but they occur during weight bearing exercise. Any exercise where feet and legs are bearing weight helps build healthy bones. When a person jumps or runs, chemical messages tell bones to grow in order to be ready for future impacts. Weight bearing exercises include jogging, walking, dancing, hiking and tennis. Though swimming and bicycling are good exercises, they are not weight bearing. Weight bearing exercise makes bones strong and flexible and less likely to break.

For more information:

The National Women’s Health Information Center
www.4woman.gov/

Reference:

Our longest bone is the femur. It extends from your pelvis to your knee.

Bones harden and become strong when you eat foods that contain calcium. Some foods rich in calcium are: milk, yogurt, cheese, broccoli and tofu.

Inside a bone is soft bone marrow. This is where most of the blood cells flowing through our bodies are made.

Your funny bone is not really a bone. It is a nerve. When you hit your “funny bone” you are actually bumping a nerve. It runs along the long bone starting at your elbow and goes up to your shoulder. Banging it gives a tingling or funny feeling!

Planning activities around the theme of bones will encourage children to learn about their bodies and how to protect their bones.

- Older infants and toddlers will enjoy hearing the song ‘Dem Bones’. Do a little dance with shakers and rattles. Get those bones to shake, rattle and roll!
- Older toddlers can dig for dinosaur bones in the sand table and pretend to be paleontologists. Hide plastic dinosaur skeletons and bones in the sand. Give children shovels and large magnifying glasses and send them on a “dig.” Wet the sand and children can make bone impressions.
- Display photos from around the world of bones used as tools, jewelry, art and musical instruments.
- Look for skeletons of giraffes, gorillas, kangaroos, lions, or dinosaurs at North Carolina’s zoos and museums. Field trip destinations can be found at [www.ncpublicschools.org/students/coolplaces.html](http://www.ncpublicschools.org/students/coolplaces.html)
- Preschoolers enjoy visits from doctors and nurses or someone with a broken bone. Exploring x-rays, crutches, knee braces and air casts can spark questions. How does a doctor know a bone is broken? How do x-ray machines work? Are people’s bones the same as a dog’s?
- Children can become orthopedic surgeons, nurses, and physical therapists in the dramatic play area. Provide items such as plastic skeletons, x-rays, face masks, bandages, lab coats or gowns and shoe covers. The play stove can become an x-ray machine. Arrange a waiting room with chairs and a basket full of children’s magazines. Hang signs, such as ‘Doctor Is In’ or ‘No Smoking.’
- Older preschoolers and school-agers can become Calcium Detectives. Point out the word calcium on food labels. Let children determine whether products are good for their bones.

A Story of Bones by Yvonne Kogan describes a study of bones undertaken by 5-year-old children in a bilingual school in Mexico City. It is a useful resource for planning projects with older preschoolers and school-age children. [http://ecrp.uiuc.edu/v5n1/kogan-thumb.html](http://ecrp.uiuc.edu/v5n1/kogan-thumb.html)

Fun Facts About Bones

- A baby’s body starts life with about 300 “soft” bones.
- Baby’s “soft” bones grow together or fuse to form an adult’s 206 bones.
- The smallest bone in your body is in your head. It’s called the stirrup bone and is behind the eardrum. It’s less than an inch long.

Children’s Books on Bones

- Bones, Bones, Dinosaur Bones by Byron Barton 1990 (toddler – school-age)
- Dem Bones by Bob Barner 1996 (preschool – school-age)
- Skeleton Hiccups by Margery Cuyler 2002 (preschool – school-age)
- The Skeleton Inside You (Let’s-Read-And-Find-Out Science 2) by Philip Balestrino 1989 (preschool – school-age)
Q: We've been thinking of creating a learning garden for our preschoolers. My staff is worried about safety. Can gardening with preschoolers be done safely?

A: Gardening is an inviting learning activity. With warm breezes and blooming buds all around, it is a wonderful time to expose young children to the world of plants, bugs and dirt. While a "childproof" environment, young children can work safely in gardens.

A safe gardening environment reduces the risk of injury while children engage in digging and planting. When the child to adult ratio is 4 or 5 children per 1 adult, caregivers can supervise children while guiding the gardening activities. Parents can supply gardening materials, tools, and a helping hand.

Gardening Safety Tips:

• Test the soil for lead contamination if your building has painted surfaces and was built before 1978. Lead is harmful to developing nervous systems and brains. Call CWLT/EQI at UNCA, 828-251-6800, for a soil testing kit available. Call the Health Hazards Control Branch, 919-733-0802, for a list of accredited risk assessors.

• Use natural pesticides and fertilizers and avoid using toxic chemicals.

• Have children practice using child-sized plastic tools in the sandbox before working in the garden.

• With the children, establish the “Gardening Rules” that are simple and easy to follow. “Be kind to the plants.” “Don't drink the garden's water.” Post the rules, with photos of the children depicting the rules and review them frequently.

• Choose non-poisonous plants. 10% of all poisonings experienced by children less than three years of age involve poisonous plants. Post the poison control number near the phone: 1-800-222-1222. For a list of poisonous plants go to www.ces.ncsu.edu/depts/hort/consumer/poison/poison.htm.

• Provide extra supervision.

• Watch for allergic reactions to plants: stuffy nose, watery eyes, dark circles around the eyes. Inform the parents of the child's symptoms and suggest they discuss them with their health care provider.

• Use sunscreen and hats during sunny days. When the temperature is above 90° F garden at the beginning and end of the day.

Start gardening with activities that match the children's developmental level. For young preschoolers, the National Gardening Association recommends keeping it simple: Pull weeds, collect seeds from fruits and vegetables or play with the dirt. Preschoolers might water the plants or place rocks or colored stones around plants. The smiles and excitement will indicate the great pride they take in their work.

Reference:

We'd like to hear from you...
Call us at 1-800-367-2229 to share your comments and request articles or information.