Playground Safety

Playgrounds can be exciting, fun places for children to build dexterity and make friends, provided the equipment is in good condition, children follow basic safety precautions and there is adult supervision. While, for the most part, playgrounds are safe, recent statistics indicate more can be done to prevent some of the playground-related injuries in children.

Statistics
- According to the U.S. Consumer Product Safety Commission (CPSC), more than 200,000 children ages 0-19 were treated for playground equipment-related injuries in 2010.
- The greatest number of playground injuries resulted from the use of monkey bars and swings.

Playground Injuries
- The two major causes of playground injuries are the playground equipment itself—including its condition and upkeep—and children’s behavior on the playground.
- In many cases, playground-related injuries can be prevented. Often children are hurt not only by the fall, but by being struck by the equipment—such as steps, poles or swings—as they fall. It only takes a second to collide with a moving swing, merry-go-round or teeter-totter.
- Drawstrings from a hooded sweatshirt can catch on a piece of playground equipment and strangle the child.
- The coils of a spring rocker can severely pinch a child’s foot or hand.

Playground Safety Guidelines
- Children under three years of age should not ride down slides on the laps of parents or older siblings—a child’s leg can be caught between the slide and the person holding the child, twisting the leg, and resulting in a leg fracture. If the child is unable to slide independently, another activity would be more appropriate to reduce the risk of injury.
- Steer children to age-appropriate playground equipment.
- Check to see that there is enough space for kids to easily get off the slide or merry-go-round. Don’t let children crowd exit areas.
- Playground surfacing is one of the most critical factors in reducing the severity of injuries due to falls. Softer surfaces such as engineered wood mulch, sand, or cushioned rubber surfacing help absorb the impact of a fall much better than asphalt, concrete, soil, packed dirt, grass or turf.
- Try the handgrips on monkey bars and other climbing devices to verify they are shaped and sized for easy grasp.
- Swing seats should be made of plastic or rubber. Avoid metal or wood.
- Avoid any equipment that has openings that could entrap a child’s head.
- Be sure you can clearly see your children on the playground.
Conduct a Playground Safety Checkup

- Parents, relatives, teachers, babysitters—anyone who sends or brings children to the playground—should periodically inspect the facility for hazards. Report problems to the proper officials and don’t let children use that playground until the authorities have completed repairs.
- Children need to be supervised at the playground. Often it is not the equipment that fails, but the children’s behavior on the playground that result in serious injury.
- How kids use the monkey bars, swings, merry-go-round, slides, etc., and the way they interact with others on the playground determine whether or not they will get hurt. Because children’s imaginations run wild, kids are at high risk, especially around their peers. Left alone, kids are apt to take chances, too.
- Schools and cities should keep playgrounds in good condition by inspecting and maintaining the equipment throughout the year. Heavy rainfall, snow, extreme temperatures and high winds can damage playground equipment. So does heavy use—the most popular equipment could wear out quickly.

You also can obtain additional information on playground safety from the U. S. Consumer Product Safety Commission at http://www.cpsc.gov.

Safety Tips for Kids

- Play on dry equipment.
- Hold on to handrails.
- Climb all stairs or steps slowly.
- Don’t climb over any guardrails.
- Avoid climbing or sliding on equipment support poles or beams.
- Slide one person at a time, sitting down and facing forward, and move away from the slide as soon as they reach the ground.
- Swing sitting down, one person per swing, and wait until the swing stops before getting off.
- Be careful crossing in front of moving swings or teeter-totters.
- Ride spring rockers one person at a time, in the sitting position only.
- Remove drawstrings and hoods from clothing that could catch on equipment.
- Use care in the sun. In hot weather, equipment exposed to direct sunlight can burn skin.
- Wear proper footwear—never play in bare feet.
**Frequently Asked Questions**

**Q: How are children injured on playgrounds?**

**A:** Many children fall off playground equipment and land directly on the surface below. On slides or monkey bars, kids who fall may strike equipment (steps, poles, etc.) underneath. It only takes a second to collide with a moving swing, merry-go-round or teeter-totter. Drawstrings from a hooded sweatshirt can catch on a piece of playground equipment and strangle the child. The coils of a spring rocker can severely pinch a child’s foot or hand.

**Q: What are the recommended surfaces for playgrounds?**

**A:** The safest playground surfaces consist of shock-absorbing unitary materials, such as rubber mats, or loose fill such as double-shredded bark mulch, engineered wood fibers, sand and fine or medium gravel of suitable depth. Playgrounds with hard surfaces like concrete, asphalt, grass or dirt are not recommended. When lots of children play on grass for a long time, it dies and the surface becomes hard. Even a soft dirt surface, over time and excessive use, becomes hard packed.

**Q: What features constitute a safe playground design?**

**A:** Hazards can develop in even the most modern playground if the equipment breaks, bolts loosen or the playing surface is not properly maintained. Some design concepts that help minimize injuries include areas for active play—such as swings—that are separated from areas for quiet play like sandboxes. Spaces for preschoolers should be located away from areas where older, more active children play. Zones for popular activities should be widely spaced. There should be clear sight lines for adult supervision. A barrier around the playground is recommended to prevent children from running into a street.

**Q: For what should parents look when inspecting a playground to determine whether or not it is safe?**

**A:** Some things to be on the lookout for during inspection include the following:

- damaged or missing supports, anchors, footings, nuts, bolts or other connectors, missing rails, steps, rungs or seats
- warping, rusting or breakage of any component, or sharp edges due to wear
- breakage of protective end caps on bolts or tubes, or misshapen or missing hooks, shackles, rings, links, etc.
- swing hangers, chains or bearings for lubrication on moving parts
- mechanisms such as joints or springs that could result in a “pinch” or “crush injury”
- deteriorated or splintering wood, cracks or holes in surfacing materials
- in-area (particularly glass or cans), or environment hazards such as roots, rocks or poor drainage areas

If your inspection uncovers any of these “violations,” the playground is not safe. Bring your list of concerns to report to the local park or school officials.
10 Common Questions about Playground Safety

Q: Why are orthopaedic surgeons concerned about injuries on playgrounds?
A: Orthopaedic surgeons often treat children who are injured on the playground. We believe it is important to prevent—not just treat—playground injuries. Playgrounds can be a safe, fun environment for children to play, but the statistics—an estimated 200,179 playground-related injuries in 2010—indicate more can be done to prevent some of those injuries.

Q: My children play on equipment at their school. Are they safe?
A: Playgrounds in schools, parks and backyards can be safe, but only if monitored closely. It is extremely important to follow the specific safety guidelines regarding playground surfaces, playground design, and equipment installation and maintenance. It is also important that children are supervised by adults at all times.

Q: I take my children to a playground and watch them closely. Why should I worry?
A: Close supervision will definitely help minimize injuries, but hazards such as sharp points, splinters, corrosion and unstable equipment can also injure a child.

Q: My children have been told about the safety rules on playgrounds, like not jumping off a moving swing, and they are old enough to go alone. Why should I be concerned?
A: Sometimes it is not what a child is doing on the equipment, but the condition and maintenance of the equipment that can be hazardous. A child may not be aware of protrusions that can snag clothing or openings that can trap his/her head.

Q: Our playground is only a few years old and has the latest equipment, should I worry about sending my child?
A: Even in modern playgrounds equipment breaks, bolts loosen and surfaces can be neglected, so it is important to conduct regular playground walkthroughs and report hazards to the proper officials.

Q: What types of playground surfaces are not recommended?
A: Hard surfaces like concrete, asphalt, grass or dirt are not recommended as a playground surface. When lots of children play on grass for a long time, it dies and the surface becomes hard. Even a soft dirt surface becomes hard.

Q: What are the recommended surfaces for playgrounds?
A: Recommended surfaces include shock absorbing unitary materials like rubber mats or loose fill such as double-shredded bark mulch, engineered wood fibers, sand and, fine or medium gravel of suitable depth.

Q: Do these surfaces require special maintenance?
A: All surfaces must be regularly inspected and maintained. If sections of a mat are pulled up, a hard surface underneath may be visible. Or, if the bark or other loose material spreads outside of the area under the equipment, the concrete footings of the equipment could be exposed. Also, the surfaces have to be cleared of debris like trash and broken glass.

Q: What should I look for in good playground design?
A: Areas for active play such as swings should be separated from areas for quiet play like sandboxes. Play areas for preschoolers and older children should be kept apart as well. Zones for popular activities should be widely spaced. There should be clear sight lines for adult supervision. A barrier around the playground is recommended to prevent children from running into a street.

Q: I’m not an engineer, how can I tell if there are hazards?
A: To get information on playground safety guidelines, contact the American Academy of Orthopaedic Surgeons’ by visiting orthoinfo.org. You also can obtain additional information on playground safety from the U. S. Consumer Product Safety Commission at http://www.cpsc.gov.

For more information on playground safety and injury prevention, visit orthoinfo.org.