Equipment Maintenance Guidelines for Playgrounds

"If you build it they will come." In many communities the public playground has become, a place where children can run, play and fantasize. But once that special place has been built, the community needs to remember that their playgrounds need to be maintained.

What should a safe playground look like?

Your first visual impression of a playground is important. Does it look safe and well maintained? Ask yourself these questions:

- Do fences, hedges or open spaces prevent children from running into traffic or parking areas?
- Are there any broken pieces of equipment such as broken swing seats or teeter-totters?
- Does the playground have adequate cushioned surfacing such as wood chips, pea gravel, sand or commercially-made products such as rubber tiles or mats? Remember, asphalt, cement, dirt and grass are not adequate surfaces and should not be used in the fall zone under or around equipment.
- Is there trash such as broken bottles or can tops lying around that could cause injuries?

What types of routine maintenance should be taking place?

Maintenance routines should be determined for each specific playground. Public agencies should establish maintenance plans based on manufacturer's recommendations and CPSC guidelines. Inspections and maintenance routines generally are based on the types of equipment, surfacing and usage.

In general, park and recreation departments, community groups and schools maintain and inspect their playgrounds on a regular basis. You may want to ask for an inspection update on your favorite playground to get a better idea of how and what the maintenance personnel assess.

Some items need to be checked regularly, maybe even weekly. These items include:

- The depth of loose-fill cushioned surfacing such as wood chips or pea gravel that may have been displaced because of use. A good guideline is 12" of loose-fill surfacing should be placed under and around the playground equipment where children could fall. Accessibility paths such as rubber mats or poured-in-place surfaces need to be swept to remove debris such as sand, dirt or any loose-fill surfaces that may have been displaced from adjacent areas.
- Trash that has been tossed in and around the playground. Look for protruding glass, can lids, sharp rocks, metal and other items.
- Damage to equipment. Vandalism and high usage can cause hazards like broken or missing handrails, guardrails, steps or signs.

Other items need to be checked on a monthly, quarterly or annual basis. These items include:

- Compaction or deterioration of loose-fill surfacing materials such as wood chips, pea gravel or sand. Loads of additional materials may be needed to provide adequate cushioned surfacing.

A good guideline is that 12 inches of loose-fill materials should be used for equipment up to 8 feet in height.

- Equipment that is broken or has loose, worn or missing parts. All parts, even plastic, can break. Check for sharp points, corners or edges. An up-close inspection of bolts, welding points and moving parts should be made. On swings, be sure to look for severe wear and openings on S-hooks and wear of bearing hangers. On merry-go-rounds, check wear of gear boxes and that governors are regulated for speed. Protective caps or plugs on equipment such as ladders and climbers should be checked and replaced if needed.
- Trip hazards that have been created by settling of equipment, usage or vandalism. A general walk-through may reveal exposed concrete footings or anchoring devices, rocks, roots or uneven surfacing materials.
- Wooden equipment that has splinters, large cracks or deterioration. A wood preservative, applied once a year, will help protect from deterioration. Preservatives should meet both CPSC guidelines and American Society for Testing & Materials (ASTM) standards.
- Metal equipment and pieces that may have rust or deterioration. Metal equipment may need to be repainted periodically. All paints and other similar finishes should have no more than 0.06% lead by dry weight. Playground equipment that was purchased prior to 1978 may need testing for lead paint unless the manufacturer documents that non-lead paint was used.
- Proper drainage in the playground area. Water should not collect under or near equipment, especially under slide and swing areas, where ice could form and cause falls.

What other safety measures should be checked on a regular basis?

Most maintenance of equipment involves making sure the equipment's surfaces and mechanical workings are safe. However, other aspects need to be considered.

The National Program for Playground Safety recommends compliance with CPSC playground safety guidelines in its Handbook for Public Playground Safety. Playgrounds, whether they are old, recently installed or a just a few years old, need to be inspected. Manufacturer's recalls, warnings or updates should be observed. CPSC warnings should be taken into consideration.

Other general safety points include:

- No openings on playground equipment should be more than 3 1/2 inches or less than 9 inches where children's heads or bodies could be trapped.
- There should be no v-shaped openings or open areas close to the top of slides where strings or ropes could get caught and cause strangulation.
- Cushioned surfaces should be placed in the fall zone for play equipment. Asphalt, cement, dirt, grass and large rocks are not appropriate surfaces. Nearly 70 percent of all playground injuries are related to falls to the surface.
- There should be no more than two swings in a bay or support structure. Those swings should be at least 24" apart at the seat base and be 30" from the side supports.
- All S-hooks should be closed. Mechanisms on teeter-totters and other equipment where fingers could get pinched should be closed.
- All hard animal swings that could ram into a child should be removed.

By being aware of these maintenance and general safety tips you can help make your playgrounds safe.