



Risk management tips

Bleacher safety

Many Boys & Girls Club gyms come equipped with bleachers. Depending on their age, maintenance, and height, bleachers may require additional safety protocols to help keep them a viable seating alternative for club members.

The Consumer Product Safety Commission (CPSC) recommends that bleachers be thoroughly inspected at least quarterly to identify any structural damage or degradation that could compromise safety. This should include inspecting the end caps to insure they are in place and secure. Low-rise bleachers that are less than four rows tall will have a top row height at or below 30 inches. A national building code requires any bleacher with a top row height over 30 inches be enclosed in a chain link or picket guardrail system or some other similar protective device.

If your bleachers' top row height exceeds 30 inches, the CPSC provides the following guidelines to prevent fall hazards:



- Guardrails should be present on the backs and portions of the open ends of bleachers where the footboard, seatboard, or aisle is 30 inches or more above the floor or ground below. Bleachers with the top row nominally 30 inches above the ground may be exempt from this recommendation.
- The top surface of the guardrail should be at least 42 inches above the leading edge of the footboard, seatboard, or aisle, whichever is adjacent.
- When bleachers are used adjacent to a wall that is at least as high as the recommended guardrail height, the guardrail is not needed if a 4-inch diameter sphere fails to pass between the bleachers and the wall.
- Any opening between components of the guardrail or under the guardrail should prevent passage of a 4-inch sphere.
- Any opening between the components in the seating, such as between the footboard, seatboard, and riser, should prevent passage of a 4-inch diameter sphere where the footboard is 30 inches or more above the ground and where the opening would permit a fall of 30 inches or more.
- The preferable guardrail design uses only vertical members as in-fill between the top and bottom rails. If there are openings in the in-fill that could provide a foothold for climbing, the widest measurement of the opening where the foot could rest should be limited to a maximum of 1.75 inches. Opening patterns that provide a ladder effect should be avoided.
- If chain link fencing is used on guardrails, it should have a mesh size of 1.25 inches square or less.
- Aisles, handrails, non-skid surfaces, and other items that assist in access and egress on bleachers should be incorporated into any retrofit project where feasible.
- The option of replacing bleachers as opposed to retrofitting should be considered.

- Materials and methods used for retrofitting should prevent the introduction of new hazards, such as bleacher tipover, bleacher collapse, guardrail collapse, and contact or tripping hazards.
- Bleachers should be thoroughly inspected at least quarterly by trained personnel and problems corrected immediately. Records of these actions should be retained.
- A licensed professional engineer, registered architect, or company that is qualified to provide bleacher products and services, should inspect the bleachers at least every two years and provide a written certification at such time that the bleachers are fit for use.

To learn more about bleacher retrofitting, go to <http://www.cpsc.gov/cpsc/pub/pubs/330.pdf>.

If you have a safety or risk management question or a suggestion for a topic, please contact Markel's Risk Management Department at safety1st@markelcorp.com.