In Sweden, it has been shown that waterslides cause 16% of all injuries in public pools. It is estimated that throughout Europe, 18% of all injuries at swimming pools take place on the waterslide. Smart design, clear user rules, and supervision can significantly lower the risks. Be aware that 24% of these injuries involve collisions with other riders. Therefore, simply preventing two people from being on the slide simultaneously will reduce the injury rates considerably.

For the purpose of these guidelines, waterslides which can be defined as large scale amusement park features are excluded.

**Why waterslides can be risky for children and youth**

Older children, particularly teenage boys, are much more likely to be injured on waterslides than younger children. This may be due to a combination of heavier weight and more risk-taking behavior. Even though teens 15 – 19 years of age made up 13% of all users, they sustained 33% of the injuries. Interestingly, children who are just 10% heavier (or more) than their ideal bodyweight are also much more likely to be injured. Therefore, have your staff provide these high risk users with extra supervision. One study in Sweden found that 55% of injured children were using the waterslide even though they did not know how to swim. This is why it is necessary to have a lifeguard monitoring the splash area at all times.

Collisions are most often associated with concussions and cut wounds, and high speed water entry is known to cause vaginal injuries and occasionally spinal fractures.

It is difficult to prevent an accident from occurring once a child is on the waterslide, especially because they are unreachable and sometimes out of sight in an enclosed tunnel. So prevention must take place through entry and exit control, good design and supervision. Youth and inexperience contribute significantly to more severe accidents and injuries.

**Waterslides** are often the most popular feature at a swimming pool and appeal to children of all ages. These days, waterslides are being made bigger and faster, with more fun features like twists, drops, and tunnels.
Recommendations for waterslide operation

- For smaller slides, children should queue in an orderly fashion prior to mounting the ladders. Larger slides that require queuing on the steps should have direct supervision of the steps.

- To prevent collisions, there should be no tandem riding and no double occupancy. Small children should not be permitted to ride on the lap of a parent or caregiver; this has proven to increase injury risk.

- Many larger slides effectively use traffic lights and barriers to control entry and prevent double riding.

- The waterslide should be directly supervised by at least one lifeguard at all times, allowing for a view of the slide entrance and the water entry area. Larger slides will require supervision at both ends and the supervisors should be able to communicate with each other.

- To avoid collisions, children should be told to clear the water entry area quickly, and not to play there.

- Children should not slide head first due to the increased risk of head and spinal injury.

- Inflatable water toys should not be used on waterslides.

- Young children who can not swim should not use the slide unless a caregiver is waiting in the splash area, for small children will be unable to reach the pool edge if the water is too deep for them to stand. Be sure that children who can not swim have a secure way to reach the edge.

- Consider what kind of supervision and maintenance you and your staff can reasonably handle.

- All slides will need to be supervised during use, plus will need to be checked daily for weaknesses, protrusions, gaps, and obstructions.

- Those with suction pumps and vents will need closer regular inspection and likely more frequent repair.

- Larger waterslides with suction pipes and vents must be adequately protected with grates and regularly inspected because vents and suction pipes are a great risk to riders.

What safety factors to look for in choosing a waterslide

New EU standards for both waterslide design and operation are currently under review. Safety standards for waterslides over 2 metres in height are already covered under EN 13451. The operation of waterslides in public baths is covered under public swimming pool management guidelines in most European countries. However, adhering to the following considerations will help ensure your waterslide is suitable to your swimming environment.

- When choosing a waterslide for your pool, you must consider the space available, the pool depth, and the characteristics of your frequent users.

- Keep in mind that a waterslide will likely increase your staffing needs.

- Staff Preparedness
  - All lifeguards or slide supervisors should be trained in CPR and first aid.
  - If lifeguards and supervisors do not have visual and aural contact with each other, walkie-talkies or a similar device should be used.
  - A telephone should be nearby for calling emergency services.
  - Have a plan in place for closing a waterslide down immediately, including how to safely bring a queue of children down the ladder.

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Reviewed by Swedish Rescue Services Agency