



## Risk, Hazard, and Play: What Are Risks and Hazards?

Play is essential for children to develop resiliency and risk management skills that support them in adulthood. The challenge is to recognize the balance between children's engagement in beneficial risk coupled with avoidance of hazards and danger.<sup>1</sup> In this briefing, risks and hazards are defined, strategies to balance risks and hazards are identified, and the need for risky but hazardless playgrounds is discussed.

### Defining risks and hazards

Risk is "the possibility that something bad or unpleasant (such as injury or a loss) will happen".<sup>2</sup> A hazard is "a potential source of harm or danger"<sup>3</sup> where danger is "something that may cause injury or harm".<sup>4</sup> From these definitions it is posited that hazards are dangers in our environment,<sup>5</sup> and risk is the probability of encountering those dangers.<sup>6</sup> Risk management, then, is a systematic approach to engaging in activities that seeks to reduce or nullify hazards while permitting risks to be present in a given environment.<sup>7</sup> These definitions provide a basic understanding of risks and hazards, but a more detailed discussion is required to develop approaches to managing risks and hazards in children's play.

Play scholars and activists define a **hazard** as a danger in the environment that could seriously injure or endanger a child and is beyond the child's capacity to recognize.<sup>8,9,10,11,12</sup> **Risk** is then defined as the challenges and uncertainties within the environment that a child can recognize and learn to manage by *choosing* to encounter them while determining their own limits.<sup>6,8,9,12,13</sup> A classic example is that of tree climbing. The height of the tree climbed provides a risk that can be managed by the child (e.g., the child can decide how high they climb).<sup>1,6,9</sup> A potential hazard would be an unidentified rotted tree branch that the child does not yet have the capability to identify.<sup>9</sup> Thus, play should take place in a space that has hazards managed by adults, but with risks, or challenges, managed by children during play.<sup>1,9,13</sup> A more quantitative expression of how risks and hazards relate to one another uses Kaplan and Garrick's (1981) equation:<sup>14</sup>

$$\text{Risk} = \frac{\text{Hazard}}{\text{Safeguards}}$$

By combining this equation with the definitions of risk and hazard, it is reasonable that adults should reduce the number and magnitude of hazards of which a child might be unaware by creating safeguards; while leaving elements of risk or challenge for the child to navigate.<sup>1,5,9,13,15</sup> Continuing with the tree analogy, adults are responsible for the health of the tree by removing any rotting branches and/or teaching the children to identify rotting branches,<sup>9,16</sup> while children are responsible for how high they climb, and which route they take to the top.

### Balancing risks and hazards

Establishing a play space that manages hazards and provides beneficial risks or challenges begins with conceptualizing the goal of children's engagement with the play space (e.g., an adventure playground for challenge and thrill, or a playground created for very young children, aged 0 – 5). Hazard mitigation may include compliance with the CSA Standard for children's playspaces and equipment (CAN/CSZ

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Z614);<sup>17</sup> completing an environmental assessment; public signage instructing how to report a playspace hazard; regular playground inspections; and having a maintenance plan that provides for the regular maintenance and monitoring of playground equipment and the surrounding area. These steps can help reduce the number of hazards *without* negating the potential for challenging play that fosters growth and imagination.

An example of a tool used in play spaces to identify risks and their associated benefits is the Risk-Benefit Assessment from Play England.<sup>6</sup> The purpose of this tool is to ask, “What are the possible benefits of this risk? What are the possible consequences?” Beneficial risks can be the lifeblood of a community playground. The excitement children experience from engaging with challenging playground equipment, and the development of their physical and mental skill to navigate dynamic play structures, are key elements that keep children and families returning to a play space.<sup>18</sup> A good playground should provide beneficial challenges in play for multiple stages of development, ensuring that children will be motivated to return to a specific play space to master new skills.

### **The need for risky but hazardless playgrounds**

Allowing children to experience the uncertainty that comes with engaging in challenging play positively influences their emotional reactions, physical capabilities, coping skills, and capacity to manage adversity.<sup>5,10,13</sup> As they grow older, children who can master risky situations are less dependent on adults to manage hazards for them,<sup>16</sup> and help them safely and confidently navigate the world around them as they transition into adulthood.<sup>1</sup>

In addition, a thoughtful justification for why some risks are acceptable can be the foundation of a legal defense, should injury occur.<sup>6</sup> Canadian courts understand that children are developing their responsibility to be aware of their surroundings, and that there is a difference between hidden risks (i.e., hazards) and visible risks that children can and should identify on their own. The legal system allows for a differentiation between an unkempt playspace that results in injury, and collisions and falls that are the result of enthusiastic children engaging in challenging play. The reality of a reasonable court system runs counter to the fears of schools and municipalities and should reduce the worry of lawsuits.<sup>18</sup> The attitude of Canadian courts also suggests that there is room for encouraging beneficial risk or challenge in play spaces. While the legal system has yet to explicitly codify the developmental benefits of risks or challenges, the common-sense practice of ‘kids will be kids, and accidents happen’ still seems to be present.<sup>19</sup>

### **References**

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