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Risky Outdoor Play

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Louise de Lannoy completed her PhD at Queen’s University. Her interests in population health and knowledge translation led her to join the CHEO Research Institute, where she first became involved in Outdoor Play Canada. Outside of OPC, Louise enjoys exploring Ottawa by running, cycling, and skiing through it, while winding down at the end of the day with a glass of wine, her partner Jeff, and their geriatric puppy.

Play is defined as voluntary engagement in activity that is fun and/or rewarding and usually driven by intrinsic motivation (recognizing that not all play is self-directed or intrinsically motivated). Risky play is a form of play that is thrilling and exciting, which involves uncertainty, unpredictability and varying degrees of challenge (Lee et al, 2022 – see the resources section for other play-related definitions).

The term ‘risky play’ is a relatively recent addition to the academic lexicon. In the published literature, Sandseter is often credited with coining the term, where she named and categorized six forms of risky play (Hansen Sandseter, 2007), which she later expanded to include an additional two forms (Sandseter & Kleppe, 2019). The eight types of risky play are as follows.

1. Play with great heights: play where there is a risk of injury from falling
2. Play with high speed: play at uncontrolled speed and pace that can lead to collision
3. Play with dangerous tools: play that can lead to injuries
4. Play near dangerous tools/elements: play where there is a risk of falling into or from

something

5. Rough-and-tumble play: play where children can harm each other
6. Play where children can “disappear” or get lost: play where children are without supervision or feel a sense of being unsupervised
7. Play with impact: play where children crash into something repeatedly for fun
8. Vicarious play: play where children experience thrill by watching others engage in risk

Why use the term “risky play” at all? Why did Sandseter, among others in the field of child development, feel the need to coin such a term, given that it often elicits such an immediate and visceral reaction, particularly among parents and educators? Brussoni refers to risky play as the type of play that used to exist, one to two generations ago, when children were given free rein to play unsupervised, pushing their own limits, teetering on the edge of safety and danger. That type of play has slowly disappeared over time. As Brussoni puts it: there was a need for a term to describe this type of play because it started disappearing from children’s lives. We had to label it so we could understand what was disappearing and advance research on the effect of it dis-

appearing and being reintroduced (M. Brussoni personal communication, September 28, 2022).

Reasons why this form of play has disappeared vary, but much of the shift away from risky play appears to have occurred recently, over the last few decades. For example, injury prevention strategies in the early-to-mid 2000s shifted towards efforts to minimize the chance of, and prevent, all injuries (Molcho & Pickett, 2011). Rhetoric around injury prevention led to a shift towards perceiving the terms risk and hazard as indistinguishable from each other, making it more challenging to recognize the benefits associated with engaging in risk (Brussoni, Brunelle, et al., 2015). Societal shifts towards viewing children as precious, requiring parents' constant attention and care, led to a trend in intensive parenting styles and the pressure to adhere to a multitude of expert, and sometimes non-expert, advice for optimal child development, including the push to control and manage all risks (Brussoni, Brunelle, et al., 2015; Shirani et al., 2012). Combine the above societal shifts with increasing parental fears over abduction and traffic injury (Clements, 2004), and it is no wonder risky play disappeared from children's lives.

However, at the same time, a growing body of evidence and practice, largely from Nordic European countries, pointed to the importance of risky play for children's health and wellbeing (Sandseter et al., 2012). In Canada, growing debate on risk and safety for children's health and development sparked sufficient interest that a symposium was held in advance of the 2013 Canadian Injury Prevention and Safety Promotion Conference. At that symposium, Canadian and international researchers, practitioners, safety experts, playground manufacturers as well as legal experts came together to discuss and share perspectives on risk and play for children's health and development. Following that symposium, Brussoni and colleagues published a manuscript summarizing the findings from the discussion, in which the authors concluded: 'the injury prevention status quo, which prioritizes safety above all else, is not reasonable or acceptable' (Brussoni, Brunelle, et al., 2015). In that paper, the

authors called upon the injury prevention field to recognize risky play as distinct from hazardous play and essential to healthy child development (Brussoni, Brunelle, et al., 2015). Shortly thereafter Brussoni and colleagues published a systematic review showcasing the overall benefit of risky play for children's physical and social health, and resilience, where risky play was not found to be associated with increased rates of injury (Brussoni, Gibbons, et al., 2015). This and a systematic review on the health benefits of outdoor time and play (Gray et al., 2015), were used to inform the development of the Position Statement on Active Outdoor Play, stating that: 'Access to active play in nature and outdoors—with its risks—is essential for healthy child development' (Tremblay et al., 2015).

Collectively, these publications in 2015 led to a major shift in thinking in Canada on risky play. Shortly after the publication of the Position Statement, the Lawson Foundation launched their outdoor play strategy, initially investing \$2.7 million in 14 projects focused on exploring how outdoor risky play supports children and youth's healthy development, which grew to \$4.5 million in related grants. The number of publications in Canada alone exploring the notion of risky play grew exponentially in the years following the Position Statement, leading to widespread recognition of its importance for health and development (de Lannoy et al., 2023a, 2023b). The following sections focus on those risky play publications, and the evidence they provide on what risky play is, the benefits of risky play, the role of the adult in supporting risky play, and emerging evidence and resources to support parents and practitioners in Canada in promoting risky play.

Physical Health and Development

Outdoor, and in particular natural, spaces are amenable to children's risky play, as there is space and a diversity of materials within and on which to run, hide, roll, jump, reach, balance and climb. It should therefore come as no surprise that children who engage in risky outdoor play exhibit increases in physical activity and decreases in sedentary time (Brussoni, Gibbons, et al.,

2015; Bundy et al., 2009; Engelen et al., 2013; Weinstein & Pinciotti, 1988). As is stated in the 2015 Position Statement on Active Outdoor Play: ‘when children are outside, they move more, sit less and play longer’, where these behaviours are important for children’s physiological health in terms of maintaining and improving cholesterol levels, blood pressure, body composition, and bone density, as well as cardiorespiratory and musculoskeletal fitness (Tremblay et al., 2015).

Moreover, risky play is important for children’s development. In natural environments, where there is a diversity of terrain (e.g., hilly, rocky surfaces) these elements afford greater opportunities for children to develop fundamental movement and gross-motor skills, such as locomotor and stabilizing skills and improved balance (Adamo et al., 2016; Johnstone et al., 2022; Lim et al., 2017). Natural environments may also support children across different development stages in mastering new skills. Herrington and Brussoni (2015) describe how ‘affordances’ are features of the environment that enable play, where the more affordances available in an environment, the better able an environment is to support children across a range of developmental stages. As the authors point out, because outdoor and natural spaces have a greater diversity of elements with varied textures, sounds, and sizes, such spaces allow for many kinds of play and are therefore more likely to engage more children, for more time. This also means that for children with low physical competence – a lack of skills and confidence to engage in outdoor risky activities – outdoor spaces with a variety of loose parts and terrain may provide such children with greater opportunity to gradually develop and master physical skills, and catch-up to their peers.

Mental, Emotional, and Cognitive Health and Development

Risky outdoor play is associated with several mental, emotional, and cognitive health and development benefits. In the literature, risky outdoor play is positively associated with mental health indicators such as improved resilience, and reduced stress and depressive symptoms (Brussoni

et al., 2017; Brussoni, Gibbons, et al., 2015; Bundy et al., 2009; Sandseter & Kennair, 2011). It is associated with social-emotional health indicators, such as greater social acceptance by peers, time spent in social play, and less antisocial behaviour, improved self-regulation (i.e., ability to understand and manage behaviour) and greater self-confidence (Brussoni et al., 2017; Brussoni, Gibbons, et al., 2015; Bundy et al., 2009; Burdette & Whitaker, 2005; Colwell & Lindsey, 2005; Prezza et al., 2001). It is also associated with cognitive health indicators such as greater creativity, problem-solving ability and focus (Brussoni et al., 2017; Brussoni, Gibbons, et al., 2015; Bundy et al., 2009; Burdette & Whitaker, 2005).

One of the proposed theories for why risky outdoor play is so important for children’s mental and emotional health is that when children are exposed to thrilling forms of play, they are given opportunity to learn about their own sense of physiological arousal, uncertainty and how to cope with these sensations (Dodd & Lester, 2021; Sandseter & Kennair, 2011). In so doing, children learn how to cope with a variety of stressors which may reduce their risk of elevated anxiety and associated poor mental health conditions in the future. In other words, children must be exposed to stressors in order to learn how to manage stress (Dodd & Lester, 2021; Sandseter & Kennair, 2011).

The association between risky outdoor play and social-emotional health may also be tied to specific forms of risky play. For example, children who are given the opportunity to disappear or get lost typically have greater independent mobility, meaning they have freedom to travel and play in their neighbourhood without adult supervision (Kirby et al., 2011). Research suggests that children who have greater independent mobility play more often with their peers, behaviour which is associated with greater social health (Prezza et al., 2001). Rough and tumble play, another of Sandseter’s eight forms of risky play (Sandseter, 2009), is associated with higher interpersonal problem-solving and greater social acceptance amongst boys (Colwell & Lindsey, 2005; Pellegrini, 1989). Interestingly, boys’

rough and tumble play is negatively associated with teacher-rated social competence (Colwell & Lindsey, 2005); which suggests that though rough and tumble play may be beneficial for boys' social health, educators may not perceive this to be the case.

Finally, risky outdoor play may be associated with greater cognitive health given the greater number of affordances that natural spaces have (Bundy et al., 2009). For example, sticks in the yard may lead to sword play (i.e. play with dangerous tools), fort-building, or the creation of a pretend-fire over which to roast hypothetical marshmallows, nurturing children's creativity and problem-solving skills. The importance of natural spaces for promoting risky outdoor play and children's mental, social, and cognitive health was demonstrated in an intervention conducted by Brussoni and colleagues in which they transformed the outdoor spaces of two childcare centres by adding natural materials to enhance the number of affordances available for play (Brussoni et al., 2017). Through the intervention the authors showed that children exhibited greater creativity, problem-solving skills and focus, in addition to decreased depressive affect, antisocial behaviour and feelings of stress. Even more encouraging is that these profound effects on children's health were achieved within a small budget (\$2-5,000) and within existing childcare spaces, addressing barriers both in terms of financial restrictions and access to natural spaces.

Role of the Adult in Supporting Risky Outdoor Play

The roles of adults in supporting children's risky and outdoor play typically fall into three main non-exclusive categories: gatekeeper, supervisor, and/or playmate. Adults – either parents or caregivers – have decision making power over children's access to outdoor risky play, in terms of when, where, how, and for how long children play outside, either serving to support or restrict children's play (Alden & Pyle, 2019; Sandseter, 2009; Stephenson, 2003). Once children are engaging in outdoor play, adults then often serve as supervisors of the play, ranging from informal

supervisors, for example when parents observe from a kitchen window, to formal supervisors, as when educators and other professional staff oversee children's care in educational settings (Alden & Pyle, 2019). Finally, adults may serve as playmates, engaging in play with children (Alden & Pyle, 2019; Lester & Russell, 2010).

Ensuring that adults serve as positive gatekeepers, providing children with regular and repeated access to outdoor spaces for play, is important for the innumerable associated benefits in terms of children's physical, mental, emotional and environmental health and wellbeing, as discussed above. Key to having adults serve as positive gatekeepers is ensuring adults feel comfortable in promoting children's access to outdoor risky play. However, as also mentioned above, parents are often concerned with risky outdoor play, either out of fear of their children getting hurt, and/or judgement from others (Brussoni, Gibbons, et al., 2015). This first element – fear – is often the major barrier to children's access. To address this barrier, one strategy that is gaining ground is to ask parents and caregivers to reflect back on their own childhoods and to think about their favourite activities, where these activities took place, and how these activities made them feel (Ramsden et al., 2022; Ungar, 2009). Provoking this reflection may help parents and caregivers see the value in risky outdoor play and the benefit it may provide to children, with the goal of supporting these adults in realizing that 'risky play' was once simply considered play (Ramsden et al., 2022; Ungar, 2009).

Once children are engaging in outdoor risky play, the challenges for parents and caregivers alike continues, where educators especially may feel conflicted between supporting risky outdoor play and ensuring that they meet their duty of care (Lavrysen et al., 2017). Fortunately, again, Brussoni and colleagues have recommendations on how to address this challenge; they recommend 'being a lifeguard parent/caregiver' to help support children's risky outdoor play. Being a lifeguard involves three stages of vigilant care that aims to support adults in avoiding unnecessary interference in children's play balanced with

careful observation to prevent actual harm; 1) open attention, 2) focused attention, and 3) active intervention (Ungar, 2009). Open attention, Brussoni recommends, is the stage of lifeguarding that adults should find themselves in most of the time; paying attention to children's activities but not getting involved in the activities, trusting that children are capable of managing most play situations themselves.

Focused attention refers to situations in which parents may feel that there may be an element of hazard involved in the play which requires greater attention. At this stage, Brussoni suggests

checking in with the child, supporting the child in thinking through their actions. Here, Brussoni strongly recommends, adults should avoid using phrases such as 'be careful' which is not specific, can instill fear, and is often overused and so can lose its meaning. Instead, she recommends using phrases that support children's situational awareness and problem-solving skills, such as saying: 'Notice how...deep the water is?', 'Do you see...that broken step?' to promote awareness of their surroundings. A list of recommended questions to ask children, and how these questions may support children in their own risk management, is provided in Table 1.

*Table 1. Suggested phrases to use in lieu of telling children to 'be careful', examples, and outcomes**

Instead of saying 'be careful', consider saying:	Example	Intended outcome
Notice how.../Do you see...	Notice how deep the water is. Do you see that broken branch?	Promote greater awareness of the environment in which a child is playing.
Do you feel...?	Do you feel safe? Do you feel tired?	Promote awareness of emotional and physical experiences while engaging in risky outdoor play.
What's your next move?	What's your next move? What do you think you should do next?	Promote problem-solving skills and the development of an action plan
Try...	Try going sideways. Try using two hands.	Promote problem-solving instead of giving them the answer, in particular when they ask for help.
Who/What/Where/How:	Who will go with you? What will you do with that stick? Where will you put your backpack? Where will you put your feet? How will you get down?	Promotes consideration of possibilities, next steps, logical consequences, and resources available.
Remember...	Remember, sticks are sharp, rocks are heavy and both need lots of space. Remember to check that the branches are thicker than your leg before climbing on them.	Promote awareness of surroundings, the properties of the objects they are engaging with, and potential negative outcomes.
I'm here if you need me. Take your time Find more space/do you need more space Do you feel stable/balanced/safe I'm here if you need me		Five broad but still fairly specific phrases to use in lieu of 'be careful' that can help parents in supporting their children's risky outdoor play!

**adapted from "Stop Telling Kids to 'Be Careful' and What to Say Instead" (Showfety, 2022) and from "How to Stop Saying 'Be Careful' and What to Say Instead" (Healy, n.d.).*

Finally, the third step, active intervention, refers to situations when an adult should intervene to reduce immediate risk, where children are likely not aware of the severity of the situation. Such situations include being close to where water becomes immediately deep, or a busy road. Apart from emergency situations, Brussoni recommends that parents try to avoid using controlling messages, instead aiming to provide children with the tools and confidence to manage their own risk. Situations requiring active intervention should be exceedingly rare.

Expert opinion on adult involvement in outdoor risky play typically ranges from the sentiment that adults should not be involved and should get out of the way of children's outdoor risky play, to the notion that in certain circumstances, children may benefit from adults providing scaffolding for play (Alden & Pyle, 2019). The intention behind 'scaffolding play' is to stimulate children's engagement in play (Jensen et al., 2019). Scaffolding can be as simple as providing loose parts before play begins, or can be more intentional, where adults pose a question or challenge to children during their play (Alden & Pyle, 2019; Coe, 2017). This latter form of scaffolding is often seen in educational environments, to stimulate children's learning through play and has been shown to be more effective than free play and direct instruction in promoting children's learning (Doherty, 2012; Jensen et al., 2019). However, even in educational environments, the intention behind scaffolding is to integrate learning into play without disrupting children's play activities, though this balancing act can be challenging to accomplish (Jensen et al., 2019). When it comes to risky outdoor play, scaffolding may also be useful to help build children's competencies in engaging in play, especially if risky play was not something a child was previously encouraged to do (Alden & Pyle, 2019). The balance here, again, is to support children's play, without directing the play while also not being negligent (Lester & Russell, 2010). Fortunately, a number of resources are available to support adults in scaffolding children's risky outdoor play, such as the Play Facilitation White Paper (Jensen et al., 2019). It is a comprehensive document on how to engage

in play facilitation with real-life examples from countries around the world. Other useful tools to support children's risky outdoor play are provided below.

References

- Adamo, K. B., Wilson, S., Harvey, A. L. J., Grattan, K. P., Naylor, P. J., Temple, V. A., & Goldfield, G. S. (2016). Does intervening in childcare settings impact fundamental movement skill development? *Medicine and Science in Sports and Exercise*, 48(5).
- Alden, C., & Pyle, A. (2019). Multi-sector perspectives on outdoor play in Canada. *International Journal of Play*.
- Brussoni, M., Brunelle, S., Pike, I., Hansen Sandseter, E. B., Herrington, S., Turner, H., Belair, S., Logan, L., Fuselli, P., & Ball, D. J. (2015). Can child injury prevention include healthy risk promotion? *Injury Prevention*, 21(5).
- Brussoni, M., Gibbons, R., Gray, C., Ishikawa, T., Sandseter, E. B. H., Bienenstock, A., Chabot, G., Fuselli, P., Herrington, S., Janssen, I., Pickett, W., Power, M., Stanger, N., Sampson, M., & Tremblay, M. S. (2015). What is the relationship between risky outdoor play and health in children? A systematic review. In *International Journal of Environmental Research and Public Health*, 12(6), 6423-6454.
- Brussoni, M., Han, C. S., Lin, Y., Jacob, J., Pike, I., Bundy, A., Faulkner, G., Gardy, J., Fisher, B., & Mâsse, L. (2021). A web-based and in-person risk reframing intervention to influence mothers' tolerance for, and parenting practices associated with, children's outdoor risky play: Randomized controlled trial. *Journal of Medical Internet Research*, 23(4).
- Brussoni, M., Ishikawa, T., Brunelle, S., & Herrington, S. (2017). Landscapes for play: Effects of an intervention to promote nature-based risky play in early childhood centres. *Journal of Environmental Psychology*, 54.

- Brussoni, M., Ishikawa, T., Han, C., Pike, I., Bundy, A., Faulkner, G., & Mâsse, L. C. (2018). Go Play Outside! Effects of a risk-reframing tool on mothers' tolerance for, and parenting practices associated with, children's risky play: Study protocol for a randomized controlled trial. *Trials*, *19*, 173.
- Bundy, A. C., Lucketta, T., Tranter, P. J., Naughton, G. A., Wyver, S. R., Ragen, J., & Spiesa, G. (2009). The risk is that there is 'no risk': A simple, innovative intervention to increase children's activity levels. *International Journal of Early Years Education*, *17*(1), 33-45.
- Burdette, H. L., & Whitaker, R. C. (2005). Resurrecting free play in young children: Looking beyond fitness and fatness to attention, affiliation, and affect. In *Archives of Pediatrics and Adolescent Medicine*, *159*, (1).
- Clements, R. (2004). An Investigation of the Status of Outdoor Play. *Contemporary Issues in Early Childhood*, *5*(1), 68–80.
- Coe, H. A. (2017). Embracing risk in the Canadian woodlands: Four children's risky play and risk-taking experiences in a Canadian Forest Kindergarten. *Journal of Early Childhood Research*, *15*(4), 374–388.
- Colwell, M. J., & Lindsey, E. W. (2005). Preschool children's pretend and physical play and sex of play partner: Connections to peer competence. *Sex Roles*, *52*(7–8), 497–509.
- de Lannoy, L., Barbeau, K., Sequin, N., & Tremblay, M. S. (2023a). Scoping Review on Children and Youth's Outdoor Play Publications in Canada. *Health Promotion and Chronic Disease Prevention in Canada*, *43*(1), 1-13.
- de Lannoy L, Barbeau-Julien K, Sequin N, Tremblay MS. (2023b) Scoping Review of Adult-Oriented Outdoor Play Publications in Canada. *Health Promotion and Chronic Disease Prevention*, *43*(3),139-150.
- Dodd, H. F., & Lester, K. J. (2021). Adventurous Play as a Mechanism for Reducing Risk for Childhood Anxiety: A Conceptual Model. *Clinical Child and Family Psychology Review*, *24*, 164–181.
- Doherty, A. (2012). Teacher, I Showed Her How to Do That!: Teaching Early-Years Children through Mixed-Age Play. *Primary Science*, *122*, 24-26.
- Engelen, L., Bundy, A. C., Naughton, G., Simpson, J. M., Bauman, A., Ragen, J., Baur, L., Wyver, S., Tranter, P., Niehues, A., Schiller, W., Perry, G., Jessup, G., & van der Ploeg, H. P. (2013). Increasing physical activity in young primary school children - it's child's play: A cluster randomised controlled trial. *Preventive Medicine*, *56*(5), 319-325.
- Gray, C., Gibbons, R., Larouche, R., Sandseter, E. B. H., Bienenstock, A., Brussoni, M., Chabot, G., Herrington, S., Janssen, I., Pickett, W., Power, M., Stanger, N., Sampson, M., & Tremblay, M. S. (2015). What is the relationship between outdoor time and physical activity, sedentary behaviour, and physical fitness in children? A systematic review. In *International Journal of Environmental Research and Public Health*, *12*(6), 6455-6474.
- Hansen Sandseter, E. B. (2007). Categorising risky play—how can we identify risk-taking in children's play? *European Early Childhood Education Research Journal*, *15*(2), 237-252.
- Healy, K. (no date). How to Stop Saying “Be Careful” and What to Say Instead. Retrieved from <https://www.natureplaywa.org.au/how-to-stop-saying-be-careful-and-what-to-say-instead/>
- Herrington, S., & Brussoni, M. (2015). Beyond Physical Activity: The Importance of Play and Nature-Based Play Spaces for Children's Health and Development. In *Current Obesity Reports*, *4*(4), 477–483.
- Jensen, H., Pyle, A., Zosh, J. M., Ebrahim, H. B., Scherman, A. Z., Reunamo, J., & Hamre, B. K. (2019). *Play facilitation: the science behind the art of engaging young children: White paper*. The LEGO Foundation.

- Johnstone, A., McCrorie, P., Cordovil, R., Fjørtoft, I., Iivonen, S., Jidovtseff, B., Lopes, F., Reilly, J. J., Thomson, H., Wells, V., & Martin, A. (2022). Nature-Based Early Childhood Education and Children's Physical Activity, Sedentary Behavior, Motor Competence, and Other Physical Health Outcomes: A Mixed-Methods Systematic Review. *Journal of Physical Activity and Health, 19*(6), 456–472.
- Kirby, J., Levin, K. A., & Inchley, J. (2011). Parental and peer influences on physical activity among Scottish adolescents: A longitudinal study. *Journal of Physical Activity and Health, 8*(6), 785–793.
- Kleppe, R., Melhuish, E., & Sandseter, E. B. H. (2017). Identifying and characterizing risky play in the age one-to-three years. *European Early Childhood Education Research Journal, 25*(3), 370–385.
- Lavrysen, A., Bertrands, E., Leyssen, L., Smets, L., Vanderspikken, A., & De Graef, P. (2017). Risky play at school. Facilitating risk perception and competence in young children. *European Early Childhood Education Research Journal, 25*(1), 89–105.
- Lawson Foundation. (2020). *Lawson Foundation Outdoor Play Strategy Final Report (Philanthropic Sector)*. Retrieved from <https://lawson.ca/OPS-Philanthropic-Report.pdf>
- Lee, E.-Y., de Lannoy, L., Li, L., de Barros, M. I. A., Bentsen, P., Brussoni, M., Fiskum, T. A., Guerrero, M., Hallås, B. O., Ho, S., Jordan, C., Leather, M., Mannion, G., Moore, S. A., Sandseter, E. B. H., Spencer, N. L. I., Waite, S., Wang, P.-Y., Tremblay, M. S., ... Zorica, M. (2022). Play, Learn, and Teach Outdoors—Network (PLaTO-Net): terminology, taxonomy, and ontology. *International Journal of Behavioral Nutrition and Physical Activity, 19*(1), 66.
- Lester, S., & Russell, W. (2010). *Children's Right to Play: An Examination of the Importance of Play in the Lives of Children Worldwide. Working Papers in Early Childhood Development, No. 57*. Bernard van Leer Foundation, The Hague, Netherlands.
- Lim, C., Donovan, A. M., Harper, N. J., & Naylor, P. J. (2017). Nature elements and fundamental motor skill development opportunities at five elementary school districts in British Columbia. *International Journal of Environmental Research and Public Health, 14*(10), 1279.
- Little, H., & Wyver, S. (2008). Outdoor play: Does avoiding the risks reduce the benefits? *Australian Journal of Early Childhood, 33*(2), 33–40.
- Molcho, M., & Pickett, W. (2011). Some thoughts about “acceptable” and “non-acceptable” childhood injuries. *Injury Prevention, 17*(3), 147–148.
- Pellegrini, A. D. (1989). Elementary school children's rough-and-tumble play. *Early Childhood Research Quarterly, 4*(2), 245–260.
- Prezza, M., Pilloni, S., Morabito, C., Sersante, C., Alparone, F. R., & Giuliani, M. V. (2001). The influence of psychosocial and environmental factors on children's independent mobility and relationship to peer frequentation. *Journal of Community and Applied Social Psychology, 11*(6), 435–450.
- Ramsden, R., Han, C. S., Mount, D., Loebach, J., Cox, A., Herrington, S., Bundy, A., Fyfe-Johnson, A., Sandseter, E. B. H., Stone, M., Tremblay, M. S., & Brussoni, M. (2022). An Intervention to Increase Outdoor Play in Early Childhood Education Centers (PROmoting Early Childhood Outside): Protocol for a Pilot Wait-list Control Cluster Randomized Trial. *JMIR Research Protocols, 11*(7), e38365.
- Sandseter, E. B. H. (2009). Characteristics of risky play. *Journal of Adventure Education & Outdoor Learning, 9*(1), 3–21.
- Sandseter, E. B. H., & Kennair, L. E. O. (2011). Children's risky play from an evolutionary perspective: The Anti-phobic effects of thrilling experiences. *Evolutionary Psychology, 9*(2).
- Sandseter, E. B. H., & Kleppe, R. (2019). Outdoor Risky Play. In *Encyclopedia on Early Childhood Development*. Retrieved from <https://www.child-encyclopedia.com/outdoor-play/according-experts/outdoor-risky-play>

Sandseter, E. B. H., Little, H., & Wyver, S. (2012). Do theory and pedagogy have an impact on provisions for outdoor learning? A comparison of approaches in Australia and Norway. *Journal of Adventure Education and Outdoor Learning*, 12(3), 167-182.

Shirani, F., Henwood, K., & Coltart, C. (2012). Meeting the Challenges of Intensive Parenting Culture: Gender, Risk Management and the Moral Parent. *Sociology*, 46(1), 25-40.

Showfety, S. (2022, April 7). Stop Telling Kids to 'Be Careful' (and What to Say Instead). Retrieved from <https://lifelife.com/stop-telling-kids-to-be-careful-and-what-to-say-instea-1848762621>

Stephenson, A. (2003). Physical Risk-taking: Dangerous or endangered? *Early Years*, 23(1), 35-43.

Tremblay, M. S., Gray, C., Babcock, S., Barnes, J., Bradstreet, C. C., Carr, D., Chabot, G., Choquette, L., Chorney, D., Collyer, C., Herrington, S., Janson, K., Janssen, I., Larouche, R., Pickett, W., Power, M., Sandseter, E. B. H., Simon, B., & Brussoni, M. (2015). Position statement on active outdoor play. In *International Journal of Environmental Research and Public Health*, 12(6), 6475-6505.

Ungar, M. (2009). Overprotective parenting: Helping parents provide children the right amount of risk and responsibility. *American Journal of Family Therapy*, 37(3), 258-271.

Weinstein, C. S., & Pinciotti, P. (1988). Changing a schoolyard: Intentions, Design Decisions, and Behavioral Outcomes. *Environment and Behavior*, 20(3), 345-371.

Resources

Active for Life Risky Play Podcast
<https://activeforlife.com/podcast-risky-play/>

Being a lifeguard parent Infographic
<https://activeforlife.com/lifeguard-parenting/>

Comprehensive list of child and youth outdoor play publications in Canada
<https://osf.io/xgy3z>

Comprehensive list of adult-oriented outdoor play publications
<https://osf.io/t4wjs>

International Play Association Canada Play Declaration
<https://www.ipacanada.org/declaration/>

OutsidePlay.ca
<https://outsideplay.ca/>

Outdoor Play Glossary
https://www.outdoorplaycanada.ca/portfolio_page/outdoor-play-glossary-of-terms/

Position Statement on Active Outdoor Play
<https://www.outdoorplaycanada.ca/resources/position-statement-on-active-outdoor-play/>

Project Alex: Nature-based early childhood education reference guide
https://www.aqcpe.com/wp-content/uploads/2023/03/Cadre_reference_Alex_ANG_2023.pdf

The Risk Benefit Assessment Toolkit
<https://childnature.ca/wp-content/uploads/2022/08/2019-11-03-CANADA-RBAT-ENGLISH.pdf>

Play, Learn and Teach Outdoors (PLaTO)

From 2019 to 2022, a four-phase research project was conducted that included over 50 global participants to achieve international consensus on major play, learn and teach outdoors (PLaTO) terms (Lee et al., 2022). Among the terms included in that project are several related to outdoor risky play, including:

Outdoor play – a form of play that takes place outdoors

Active play – a form of play that involves physical activity of any intensity

Free play – a form of play that is unstructured and self-directed

Nature play – a form of play that takes place in a natural environment and/or involves interaction with natural elements and features (e.g., water and mud, rocks, hills, forests, and natural loose parts, such as sticks, pinecones, leaves, and grass)

To learn more about the PLaTO project, and ongoing PLaTO-Network projects, visit: <https://www.outdoorplaycanada.ca/plato-net/>