

Dr. Gable's Book Review

Balanced and Barefoot, by Angela J. Hanscom



<https://www.sott.net/article/382170-Free-range-children-Unstructured-play-is-critical-for-kids-their-brain-development>

A couple months ago I was invited to Glen Elg Country School to listen to Angela Hanscom speak about the importance of outdoor play in the lives of children. Ms. Hanscom is a pediatric occupational therapist, a mother of three, and the founder of TimberNook, a nature-based developmental camp for children. I consider myself someone who believes in the importance of outdoor play, and I was fairly certain I would enjoy her talk. By the end, I was grateful for and impressed by her insight into why outdoor free play and unrestrained movement are vital for the physical, cognitive and emotional development of our children.

According to the CDC at the time of this publication, “9.4% of children aged 2-17 years (approximately 6.1 million) have received an ADHD diagnosis, 7.4% of children aged 3-17 years (approximately 4.5 million) have a diagnosed behavior problem, and 7.1% of children aged 3-17 years (approximately 4.4 million) have diagnosed anxiety”¹. At the same time screens fight for the attention of our children, teachers are having increasing difficulties keeping the attention of children in the classroom. Parents are at their busiest, working endlessly to raise healthy children while battling video games and social media. Many of us are looking to end the chaos. For this reason, I find it of utmost importance that we take a look at outdoor play and its role in helping children grow and thrive in the world around them.

Let's travel back to when you were a school aged child. Do you remember playing outside often? Did you have a big backyard, or did you live in the city and play in a nearby park? Did your family go camping, hiking, or to the beach? Were you outside every day after school with siblings or friends? How many hours a day do you think you spent outdoors during the week or on the weekend? ...Now think about your child(ren)? How much time do they spend playing outside every day? Do they have recess, for how long and how many? Consider how much time they are outside after school, during the summer? Do you encourage your kids to play outside when it is raining and when it is cold? Angela Hanscom asked us to consider these scenarios and most of us agreed we spent 2-4 hours a day outside as children, even in the cold. We also agreed our children are lucky if they get even an hour of outdoor play each day.

¹ <https://www.cdc.gov/childrensmentalhealth/data.html>

Playgrounds were once filled with exhilarating fun. The days of merry-go-rounds... A friend would grab the handle and start running, pulling the merry-go-round around and around, till it was spinning really fast, then jump on and enjoy the ride. Swings had long chains, encouraging you to swing really high and then jump off, or enticing you to twist the chain, then pick up your feet and unravel. Free standing bars 4- 5 feet high, waiting for you to wrap your knees and hang upside down, letting your hair fall, possibly dragging it in the dirt, swinging yourself back and forth. Domed jungle gyms trampled by 15 kids scrambling to the top. Teeter Totters with at least one kid per side, we all remember the time our sibling got off without telling us and we crashed to the ground. Tall metal slides to rush down, trees to climb. Every time I remind parents of these playgrounds of our youth, they always smile, because they remember the fun.

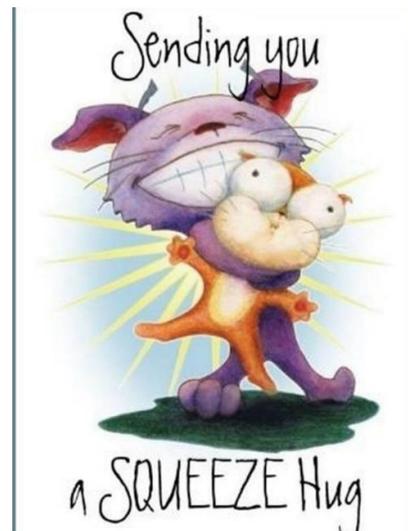


Consider the playgrounds your children are exposed to today. Maybe a slide, made of plastic and likely not very high. Often no swings, and almost guaranteed no merry-go-rounds, no dome jungle gyms, and no metal sliding boards. Foam mats or mulch flooring underfoot if they are lucky, concrete if they are not. Ms. Hanscom felt she needed to help stimulate change and is passionate about outdoor free play, for this reason she founded TimberNook, a nature-based play camp for kids which is 100% outdoors. Her first camp was located on her own property, now TimberNook camps are located all over the US and abroad. TimberNook's mission is to "challenge the senses and inspire creativity, independence, and imagination in the great outdoors".

In order to appreciate the importance of outdoor free play in development we need to understand the senses. Touch, taste, sight, smell, hear, these are the senses we likely all recognize and with which we have some familiarity. We should include on this list, proprioception and vestibular sense.

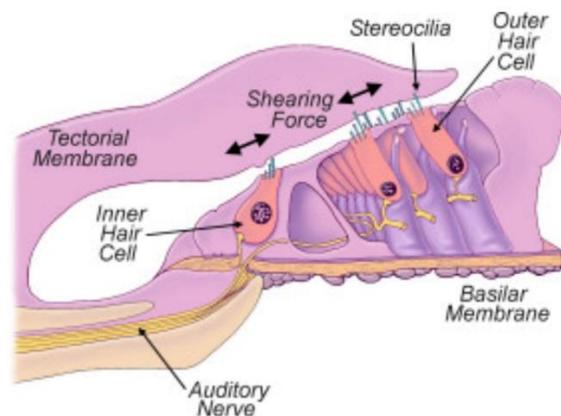
Proprioception refers to knowing where your body is in space and knowing how much force your body needs for a particular task, otherwise known as the sense of self movement.

Receptors for proprioception are located in muscles and joints. For example, reaching out to find a light switch in a dark room. You know where your arm is even when you cannot see it. Walking down the hallway you keep yourself from running into corners and walls through your sense of proprioception. When you go to give someone a handshake or hug, you know how much force to use to have a "strong, firm handshake" or to avoid giving a hug that is "a little too tight".



Receiving less proprioceptive input can result in core muscle weakness, sensory sensitivities, and an inability to control the amount of force imparted in movement. In these situations, we can see delays in achieving gross and fine motor milestones. Children may have “heavy” handwriting, often ripping the paper when writing and erasing. They may give “hang on you” hugs and be unable to tolerate clothing that provides too much or too little pressure. Many of these children go onto develop anxiety if these deficits are not corrected.

Vestibular sense is your awareness of the orientation of your head and body and involved in balance and equilibrium. Imagine spinning around, getting dizzy, your vestibular sense helps keep your body upright. If you swing really high, flip on a trampoline or practice yoga, you are able to tell which way is up. The anatomy of your vestibular system is very complex and parts of it still not understood. For the sake of this article, let’s consider a simplified view. The vestibular system is the communication between the hair cells located in your inner ear and your brain. Hair cells detect motion and changes in head position. They bend and move in different directions depending on if you are jumping, bending, spinning, climbing, flipping, hanging upside down, and so on.



The Organ of Corti

Neurophysy.wisc.edu

An unchallenged vestibular system results in a decrease in balance and coordination. Children with an immature vestibular system can display behaviors categorized as **sensory avoidant** or **sensory seeking**. Children who display “**avoidant**” tendencies, may be timid when it comes to trying new activities, especially those requiring balance, such riding a bike. They often avoid escalators and elevators, feel unsteady on stairs and uneven surfaces and can be referred to as clumsy. Instability can result in fear and avoidance of activities leading, a sedentary lifestyle and anxiety. Children who display “**seeking**” behaviors seem to “move fast”, may appear fidgety, and unfocused. They may tip their chair when sitting, get up and walk around when asked to sit, and may have explosive behaviors. These children may jump from unsafe heights or partake in other risky behaviors. They can have difficulty distinguishing reasonable vs dangerous risks.

What types of movements do your child(ren) encounter day to day? When they are spinning in the living room, or tipping their chair at the dinner table do you ask them to stop for a fear that they may get hurt or break something? Do you ask them to stop jumping or climbing on the couch? If you see them climbing a tree are you able to let them or do you ask them to get down? I have definitely done ALL of these things at one point or another. Angela Hanscom has convinced me that I need rethink how I respond when my children are engaging in these activities and consider it a message that my children

have not gotten enough of the right kind of movement that day. I need to find ways for them to have more unstructured outdoor play.

Kids who spin around in circles over and over are learning how to keep from falling and training their body not to feel nauseas while doing it. Climbing a tree tilting sideways to reach the next branch they are learning balance, strengthening their core muscles and figuring out how to navigate the risk of falling with the reward of getting to the top. Swimming in a competitive race, children learn to take manageable risk by diving off the blocks, receive proprioceptive input due to the constant pressure of the water on their body, and stimulate their vestibular sense by rotating side to side, up and down and flipping during turns. One of my best friends and roommate in college was an excellent diver and I can only imagine the amount of proprioception and vestibular sense she used every day to complete her front 1 ½ with three twists.

How do we help our children develop sophisticated proprioceptive and vestibular sense? Spend time outside of course. **Why is outdoors better?** My family room is much smaller than my backyard. There are objects in my family room I prefer to not get broken. The brick on my fireplace, even if I am able to morph into a more “laid-back” parent could still result in a trip to the ER if contacted by my son’s forehead at a high rate of speed...But, if the same activities occurred outside...those concerns vanish. Furthermore, there is an abundance of research to support nature and the outdoors as a **calming place**. Outside is the **ideal sensory experience**. Envision a hike in the woods...a breeze on your face, the cool of the shade on your skin, the sound of birds chirping, the crunch of the leaves underfoot...Or a walk on the beach...with the wind at your back, the sun warming your skin, the sand between your toes and the sound of peaceful ocean waves.

Big open spaces give us room to **explore and wander**, instilling a sense of vastness about the world. There is thought that witnessing our comparative “smallness” in nature can help keep life and its trials in **perspective**. The milk spill that morning, a failed math quiz or a friend hurting our feelings seems small when we are able to appreciate our tiny place in the world. I remember impressively feeling this way when I was riding a bike over the Golden Gate Bridge a year ago. Furthermore, the thrill of running in the woods, riding our bike down a big hill, or log rolling in the grass gives children a sense of real **adventure**. Ms. Hanscom often observes an improvement in anxiety as campers become comfortable outdoors. She witnesses a child’s growing sense of self-confidence while conquering a hike, crossing a stream, or resolving a conflict with a friend independently.

Consider your overstuffed playroom, a vision of a child staring at the iPad, or siblings fighting...again. Consider the activities that surround them at school and at home. How much time is there to sit and ponder, to digest the day, to imagine and play, to discover their own story. From infancy through adulthood the majority of modern “toys” involve bright lights, loud volumes, and/or overstimulating images and screens. The amount of time our children spend without a parent requesting they complete a task, a teacher soliciting their attention or a coach directing practice, and critiquing their skills is quite limited.

But outside, with the piles of overstimulating toys removed, kids get **creative**, they make games out of nature. Leaves can become currency, flowers a medal of victory, sticks turned into a tee pee. Games start amongst groups, kids practice creating rules, peers ensure **fair play**. Adventures teach the skill of **balancing thrill and risk**; children learn to **navigate limits**. There is space and quiet to wonder and wander. Anxieties can be overcome without a parent’s well-meaning but possibly judgement filled words. Alliances are formed, **friendships made**. When children get enough free play and time outdoors,

we can see an improvement in their ability to sit and pay attention in class, **focus** when needed, develop their creativity, decrease their level of anxiety, feel more **self-assured** in the world.

Getting enough proprioceptive input and challenging your vestibular system are important for adults too. Our bodies need to experience all types of movements on a frequent basis to become trained, stay in shape, and keep us agile. Some would argue that even adults who were once athletic, and able to tolerate 3 runs on the Scrambler will lose their sense of balance and be at risk for acquiring vestibular disorders such as vertigo if they do not work to keep this sense in tip top shape. I challenge you to think about what you do to move your body in different ways. Consider taking a tango class with your significant other or a friend, taking a ride on the Scrambler next time you are in Hershey Park, or oil up that bike chain and take it for a spin (wear a helmet☺).



Angela Hanscom's discusses Adult Driven Safety vs. Child Driven Play. A tough pill to swallow at times, but truthful. It is hard to let go of all the cultural messages we receive, myself included. She suggests that we consider the difference between parent's fear and what is actually happening. Tragedies of a child being kidnapped by a stranger or having life threatening playground injury are extremely rare. Ms. Hanscom discusses some of the "cultural norms" making it difficult for our children to spend more free play time outdoors.

Adult Driven Safety-

1. **Parents feel the need to provide constant supervision-** try to let your child roam and wander. When you are on a walk and not near a large road or parking lot, let them run ahead. Let them walk to the neighbors, or if age appropriate let them ride their bike to a friend's house.
2. **Fear of strangers-** Reports by Crimes Against Children Research Center, one of the most reliable authorities on child abduction state that abduction of a child by a stranger remains rare. These numbers are also reported by The National Center for Missing and Exploited Children.
3. **Fear of Injuries-** Minor cuts and scrapes are a part of childhood, it is important to teach kids that minor injuries will not keep them from having fun. A child being severely injured on a playground or elsewhere is tragic. Luckily, the number of children who encounter severe injuries or death on playgrounds is very low. Between 2001 and 2008, the Consumer Product Safety Commission investigated 40 deaths associated with playground equipment. That is about 13 per year (out of millions of children in America), and only 10 fewer than reported in 1980, prior to playground reconstruction. For comparison, the journal *Pediatrics* reported in a 2017

study that approximately 1300 children a year are killed in the United States due to gun violence.²

4. **Abundance of Rules-** Due to fear or increased litigiousness of our culture today schools and play areas have more rules than ever. Children are not allowed to climb trees, go outside for recess in cold weather, play tag, or even go on the grass if it has rained recently due to the fear of getting dirty.

Child Driven Play-

1. **Kids know what they need.** Children are built to be able to learn to regulate their own sensory systems. If they are choosing to spin, and they are happy, let them. They will stop when and if they start to feel nauseas. If they are crawling in the dirt and playing with rocks and smiling. Let them. They will stop when they have had their fill.
2. **Children are natural risk takers and taking risks improves safety awareness-** Children seek play that involves thrill and risk. If we let them guide us, they will develop of sense of what is “safe enough” and what is “dangerous”. They also need to learn to overcome fears by taking risks. If they jump from manageable heights when they are 5, they are less likely to be afraid of heights as a teenager. Taking frequent appropriate risks as a child leads to a teenage and adult who is less likely to develop phobias.
3. **Children take pride in independence.** Let them have some 😊.

How do you make it all happen? Angela Hanscom’s book discusses in depth important considerations when shifting your life towards more outdoor free play. I want to highlight some steps you can take. Please read her book for more helpful tips and guidance. Giving your children more outdoor time and more freedom can be scary but it is necessary for growing up and becoming responsible, productive, self-sufficient humans. You do not want their first taste of this to be when they drive a car at 16 😊.

1. **Babies can go outside to play, in infancy.** There is never an age that is too young to experience the outdoors which provides a full sensory experience that is not overwhelming. Letting an infant crawl in the grass while you garden gives them the sensation of the tickling grass under their knees, the smell of the flowers, the feel of traveling on uneven terrain. They observe the sun traveling through the leaves noticing the shadows it creates and how the leaves move in the breeze. These scenarios are unable to be recreated inside with any toy or screen.
2. **Leave “baby containers” behind when possible.** We all love them, including myself, and for some tasks there is no way around them, but getting them out of the stroller and into your arms or on the ground challenges their muscles, and gives them an improved sensory experience. Too much time in devices alters development of motor skills and prohibits infants from becoming accustomed to different gravitational forces on the body (the ground under you when you lay on your belly, the feeling of tilting when grabbing for a toy slightly out of reach).
3. **Being outside calms babies.** Angela Hanscom tells us about napping practices in Nordic countries which I found SO fascinating. They believe the outdoors is so calming to infants, it is common practice to put them outdoors in their prams (baby carriages) for nap time, even in

² Katherine A. Fowler, Linda L. Dahlberg, Tadesse Haileyesus, Carmen Gutierrez and Sarah Bacon Childhood Firearm Injuries in the United States. *Pediatrics* June 2017, e20163486; DOI: <https://doi.org/10.1542/peds.2016-3486>

colder weather. One Finnish study Ms. Hanscom sights reports that children take even longer naps when outdoors.³

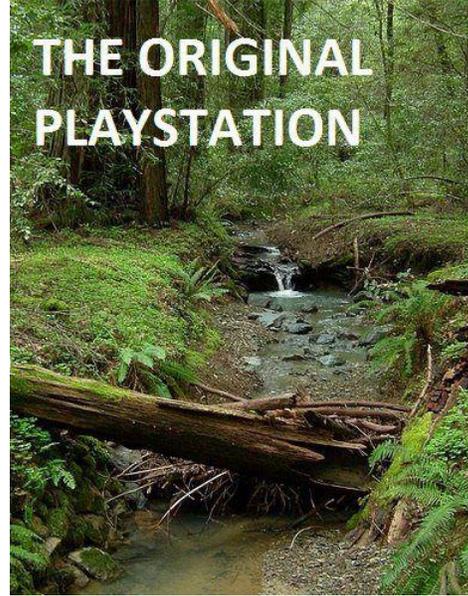
4. **Let them explore and let them get dirty.** Sensory bins are popping up all over preschools. We have used them, and they can be helpful. Learning to draw letters in kinetic sand or making them out of play dough can be better than pencils and paper at times. However, the world outdoors provides a sensory experience far beyond anything you can put in a bucket. Playing in the rain, writing your letters in the mud, or collecting sticks for an adventure is healthy, fun and a wonderful way to learn about your environment. One parent told me their previous pediatrician used to say, "Kids need to eat a pound of dirt a year." **I LOVE THIS**, and I have borrowed the phrase for my own practice. I know what you are thinking, ugh, the mess!!! I have a fairly light colored couch and I do not like doing additional laundry but when I see the joy on my sons face after getting muddy in the stream catching minnows for the afternoon, I am able to let that go and share in his joy by reminding myself, "Stuff is stuff, this is the good part of life, these experiences are so important for him in so many ways".
5. **Start slow and give them more freedom as you feel comfortable.** Kids, and parents☺ need to practice changes in rules and get extending freedoms. If you are always outside with them, start by sitting on the deck and letting them roam where you can see them or by sitting at the window inside. Teach them they need to be home before dark and then practice this skill with them. Teach them which houses they are allowed to go to and play with friends. Teach them to run home and ask if it is ok to go inside another friend's house before they do. Consider where you live and teach them what do to if there is any emergency, (find a trusted grown-up, ask a policeman, send a friend to get help). Consider walkie-talkies.

Common Sense Safety for Outdoors-

1. **Make Cuts and Scrapes "not a big deal"**- Playing inside and out, scrapes and cuts are part of childhood. Normalize the injury, help your child get a bandage, give them a kiss and send them back outside.
2. **Getting dirty and wet-** If you do not make slipping, falling and getting dirty a problem, it is more likely they won't either. Keep a spare change of clothes nearby if needed. Laugh it off and have a good time.
3. **Poisonous Plants-** Teach them which plants are poisonous and which are not. Show them poison ivy so they know what it looks like and they will not need to be fearful. Identify berries which cannot be eaten...and any that can☺. When I was a young child, we had raspberry bushes in our front yard. My mom would send us to pick them and we would come back with red faces and empty bowls.
4. **Staying Hydrated-** Remind them to drink water. Send them with a water bottle. Playing can be so fun they forget to drink.
5. **Bugs-** If you are not a bug lover, its ok. Try to let your children love bugs. If they get a tick, remove it calmly without bringing alarm and without discussing your fear of Lyme disease. Your goal is to prevent your child from developing a fear of bugs leading to less enthusiasm for outdoors.
6. **Sun-** Playing outside is important for Vitamin D. Sunscreen is needed if you are outdoors for an extended period of time. Depending on their age, they child can apply their own sunscreen, first with your guidance and eventually alone.

³ Tourula, M., A. Isola and J. Hassi 2008. "Children Sleeping Outdoors in Winter: Parents Experiences of a Culturally Bound Childcare Practice." *International Journal of Circumpolar Health* 67 (2-3):269-78.

7. **Getting Lost**- Teach your child the limits of their wandering. Set physical boundaries. For example, they can go as far as the house on the corner. Or if you live near woods, put brightly colored flags marking the area they can explore.
8. **Wild Animals**- Research the animals in your area and teach them about safety without scaring them. Which animals are safe, and which are not? Most animals will not bother humans if you leave them alone, which is a good lesson as well.



I am so grateful to have met and listened to Angela Hanscom speak about outdoor play. I hope you choose to read her book and consider incorporating more outdoor play into the daily routine of your family. Remember...

**At the end of the day your
feet should be dirty, your
hair messy and your eyes
sparkling.
- Shanti**

** The opinions in this piece are solely of Dr. Gable and do not necessarily express the opinions of other providers or Pavilion Pediatrics as a whole.