



Credit...Wesley Allsbrook

LaToya Jordan and her family have no green space by their Brooklyn apartment. So she, like many other New Yorkers, relies on the city's playgrounds and parks to give her two children, ages 2 and 8, some exposure to nature.

The outbreak of the coronavirus in New York City took away that access to green space when playgrounds closed across the city, and the city's parks, like Prospect Park in Brooklyn, became too crowded for her children to properly social distance.

Jordan, 42, has observed a distinct change in her children's well-being after having little to no access to green space. "Both of them are more moody and cranky," she said. "My 8-year-old is so jealous of her friends who have backyards right now."

The change in behavior has been so noticeable that she and her husband are considering renting a house with a yard in Brooklyn for a week.

Jordan found that despite the cancellation of all in-person activities — from Girl Scouts to piano lessons to gymnastics — what her children missed the most was just the freedom of playing outside with friends.

Numerous studies have shown the mental and physical benefits of spending time in nature, but for some people, it took a pandemic and stay-at-home orders for that desire to spend more time outdoors to feel like a necessity. Experts hope that desire for nature will remain once people physically return to their busy

schedules.

“Ironically, the 2020 coronavirus pandemic, as tragic as it is, has dramatically increased public awareness of the deep human need for nature connection, and is adding a greater sense of urgency to the movement to connect children, families and communities to nature,” said Richard Louv, a journalist and the author of “Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder.”

Before the pandemic, more children were spending their lives mostly indoors, and the spread of the coronavirus has likely accelerated that, and, in turn, deeply affected them, Louv said.

He added, “As young people spend less of their lives in natural surroundings, their senses narrow, both physiologically and psychologically.”

Kiona Gardner, 41, suspects her two boys, ages 9 and 12, are showing symptoms of what Louv has coined [nature-deficit disorder](#), a nonmedical condition that suggests that spending less time outdoors can contribute to behavioral changes in children. Their townhouse in Wilmington, Calif., has no yard, and any park within driving distance is too crowded to allow social distancing. The family anticipates a long summer ahead without any travel. Both boys are asthmatic and will be most likely be confined to their home.

“They are stressed and anxious,” Gardner said. “I had to buy them an anxiety chew necklace because they have both been putting everything in their mouth.”

Gardner said that when her family feels safe enough to resume a normal life again, she plans to prioritize unstructured outdoor play for her boys. “I really want to find a balance,” she said. “My oldest needs to get back to playing basketball, but I also would

like for them both to have time for free play and not have to worry about getting sick.”

Research has shown access to [green space is linked to a child's well-being](#). For example, adding greenery to school play yards [has been shown to increase prosocial behavior in kids](#). They help, cooperate, comfort and share more; the loss of access to this greenery has the opposite effect. A 2013 study found that [even viewing nature scenes can reduce stress](#) and regulate heart rates.

[Louise Chawla](#), Ph.D., a professor emerita at the University of Colorado Boulder, studies the effects of nature and urban spaces on children. She explained how one of the greatest needs of young children is autonomy, and free play in nature is one way to satisfy that need.

“If you explore a woody area in the park, there is something for every age there,” Dr. Chawla said. “There are rocks of different weights, stumps of different sizes, lighter and heavier sticks. Whatever a child's current skill level is, they can work toward their next level of challenge. They are learning about their own capabilities.”

Kim Shore of Chicago said she felt comfortable purchasing her condo with zero personal green space because there is a park across the street. “We would have everything we needed for nature access if the world were open,” she said. But access to their park has been curtailed because of the crowds during the coronavirus outbreak.

Early on in the pandemic, she noticed short tempers and anxiety in her 6- and 8-year old children that she attributed to a lack of time outdoors. Shore decided to take her family to a friend's home with a large yard in a Chicago suburb for several weeks.



Once her children had space to move outdoors, she said they seemed calmer, more regulated, and happier. When they returned to their condo, they seemed to regress, she said. They plan to stay with friends who have a yard in a St. Louis suburb for the summer. “I started to worry about the long-term impact on them,” she said. “In the city, they hold their breath when anyone walks by us. In the suburbs, they were able to relax. They were completely different human beings with a yard.”

## [The Coronavirus Outbreak ›](#)

### Frequently Asked Questions

Updated August 6, 2020

- **Why are bars linked to outbreaks?**
- Think about a bar. Alcohol is flowing. It can be loud, but it’s definitely intimate, and you often need to lean in close to hear your friend. And strangers have way, way fewer reservations about coming up to people in a bar. That’s sort of the point of a bar. Feeling good and close to strangers. It’s no surprise, then, that [bars have been linked to outbreaks in several states](#). Louisiana health officials have tied [at least 100 coronavirus cases](#) to bars in the Tigerland nightlife district in Baton Rouge. Minnesota has traced 328 recent cases to bars across the state. [In Idaho](#), health officials shut down bars in Ada County after reporting clusters of infections among young adults who had visited several bars in downtown Boise. Governors in [California](#), [Texas and Arizona](#), where coronavirus cases are soaring, have ordered hundreds of newly reopened bars to shut down. Less than two weeks after Colorado’s bars reopened at limited capacity, Gov. Jared Polis [ordered them to close](#).

- **I have antibodies. Am I now immune?**

- As of right now, [that seems likely, for at least several months.](#)

There have been frightening accounts of people suffering what seems to be a second bout of Covid-19. But experts say these patients may have a drawn-out course of infection, with the virus taking a slow toll weeks to months after initial exposure. People infected with the coronavirus typically [produce](#) immune molecules called antibodies, which are [protective proteins made in response to an infection. These antibodies may](#) last in the body [only two to three months](#), which may seem worrisome, but that's perfectly normal after an acute infection subsides, said Dr. Michael Mina, an immunologist at Harvard University. It may be possible to get the coronavirus again, but it's highly unlikely that it would be possible in a short window of time from initial infection or make people sicker the second time.

- **I'm a small-business owner. Can I get relief?**

- The [stimulus bills enacted in March](#) offer help for the millions of American small businesses. Those eligible for aid are businesses and nonprofit organizations with fewer than 500 workers, including sole proprietorships, independent contractors and freelancers. Some larger companies in some industries are also eligible. The help being offered, which is being managed by the Small Business Administration, includes the Paycheck Protection Program and the Economic Injury Disaster Loan program. But lots of folks have [not yet seen payouts](#). Even those who have received help are confused: The rules are draconian, and some are stuck sitting on [money they don't know how to use](#). Many small-business owners are getting less than they expected or [not hearing anything at all](#).

- **What are my rights if I am worried about going back to work?**
- Employers have to provide [a safe workplace](#) with policies that protect everyone equally. [And if one of your co-workers tests positive for the coronavirus, the C.D.C.](#) has said that [employers should tell their employees](#) -- without giving you the sick employee's name -- that they may have been exposed to the virus.
- **What is school going to look like in September?**
- It is unlikely that many schools will return to a normal schedule this fall, requiring the grind of [online learning](#), [makeshift child care](#) and [stunted workdays](#) to continue. California's two largest public school districts — Los Angeles and San Diego — said on July 13, that [instruction will be remote-only in the fall](#), citing concerns that surging coronavirus infections in their areas pose too dire a risk for students and teachers. Together, the two districts enroll some 825,000 students. They are the largest in the country so far to abandon plans for even a partial physical return to classrooms when they reopen in August. For other districts, the solution won't be an all-or-nothing approach. [Many systems](#), including the nation's largest, New York City, are devising [hybrid plans](#) that involve spending some days in classrooms and other days online. There's no national policy on this yet, so check with your municipal school system regularly to see what is happening in your community.

[Ming Kuo](#), Ph.D., an associate professor at the University of Illinois who studies urban greening, said parents, like Shore, have described how their children are “completely different” when they have access to green space. Dr. Kuo's research has

shown that access to green space decreases aggression and attention deficit hyperactivity disorder symptoms, and boosts the immune system. But she also was quick to point out an unequal access to green spaces across socioeconomic and racial lines.

“Overall, wealthier areas are much greener with more street trees, more lawns and gardens, and more parks. It also varies by race because of segregationist housing policies,” Dr. Kuo said.

[Rebecca Hershberg](#), Ph.D., a psychologist who specializes in early childhood social-emotional development and mental health, hopes parents will hold on to some of the lessons they’ve learned during the pandemic about the need for unstructured time and nature as states begin to lift restrictions.

“We now know, not just intellectually but based on recent lived experience, that not all activities are created equal when it comes to enhancing our children’s mood and behavior.

Prioritizing time in nature, exercise, and even some unstructured downtime is analogous to prioritizing our children’s mental health, which is more important now than ever.”

In the meantime, Louv, the journalist and author who conceived of the concept nature-deficit disorder, created a [list](#) of ways that families could connect with the natural world, including some that don’t require having green space, like setting up a “world-watching window.”

In an interview, he recalled the excitement that many people experienced when they saw nature through windows in cities with shelter-in-place orders. “As we sequestered at home, many of us were fascinated by the apparent return of wild animals to our cities and neighborhoods. Some wildlife did come deeper into cities. But many of these animals were already there, hiding



in plain sight.”

For families without their own green space, Dr. Chawla suggested taking some books or art supplies to any little patch of green outside.

“Children are moving all the time, but they also show sustained fascination,” Dr. Chawla said. “Even a tiny bit of green space can be a place to slow down, watch an insect, move some dirt around.”

In reconnecting with nature, Dr. Kuo said activities could take “a variety of forms — a hike in a forest preserve, or fishing or gardening, obviously, but also smaller doses we might not think of: walking in a tree-lined neighborhood, a glimpse of a green view through the window, the scent of roses. Every bit helps.”