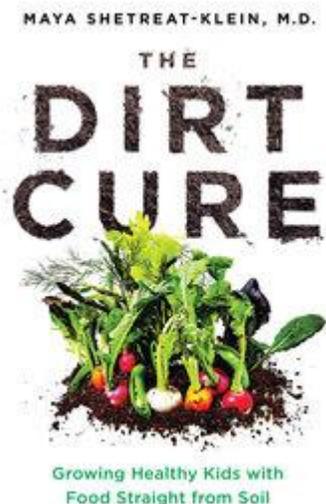


How the ‘Dirt Cure’ Can Make for Healthier Families

By [Anahad O'Connor](#)

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Dr. Maya Shetreat-Klein
Photo Credit - Tanya Malott

Dr. Maya Shetreat-Klein has a message for the parents of small children: Don't be afraid of dirt.

She is a firm believer in the idea that children in Westernized countries today grow up in a world that can be too sanitized. They spend less time outdoors exploring nature and more time in front of screens than they did two decades ago. They eat foods that are heavily processed. Many do not know what it's like to taste fresh, seasonally grown foods plucked from a garden with nutrient-rich soil.

Dr. Shetreat-Klein, a pediatric neurologist in New York and an instructor at New York Medical College, explores these themes in a new book, "[The Dirt Cure: Growing Healthy Kids With Food Straight from Soil](#)." The book delves into research that suggests that spending time around farms, parks and other green spaces can benefit children in surprising ways, protecting against allergies, enhancing immune function and potentially even improving attention span and academic performance.

Dr. Shetreat-Klein wrote the book after a frightening experience with her youngest son, who started wheezing, breaking out in rashes and showing signs of delayed cognitive development after his first birthday. Various doctors suggested it was nothing to worry about.

But Dr. Shetreat-Klein eventually went to see an allergist who determined that her son was severely allergic to soy. Weaning him off of soy, which is added to many processed foods, proved difficult at first. But a week after eliminating soy from her son's diet, Dr. Shetreat-Klein noticed that his problems began to dissipate.

She and her family then set out on a journey to reconnect with nature. Despite living in the Bronx, one of the most densely populated, urban counties in the country, they started growing their own food, taking trips to farmers' markets and going on nature hikes. They even raise their own chickens.

Recently we caught up with Dr. Shetreat-Klein to talk about her book, why she feels so strongly about exposing children to “good old-fashioned dirt,” and what families who live in urban areas can do to get closer to nature. Here are edited excerpts from our conversation.

Q. You’ve said that your son’s allergy was part of the impetus for this book. How so?

A.

It was the beginning of my investigation into how food impacts children’s health, why children are so allergic today, and how this impacts their cognition, development and behavior. I learned for one thing that food has changed dramatically in the last 20 years – from the way it is grown literally from seed to sprout to plate, how it’s processed, and the kinds of additives that are used. Children’s environments have changed, and so have the foods they’re eating.

Q. Explain what you mean by “dirt cure” in the title of your book.

A.

Dirt means three things to me. It’s eating nutrient-dense food from healthy soil. It’s being exposed to certain microbes. And it’s spending time outdoors in nature.

Q. Why is it that children who grow up on farms [tend to have lower rates of asthma and other allergies?](#)

A.

We used to think that children who grew up on farms were healthier than children in urban environments because they were exposed to more microbes. But studies have found that the number of bacteria in urban environments and on farms is similar. The difference is the diversity of the bacteria. Microbial diversity seems to have a very powerful impact. Children’s immune systems are very social: They like to meet and greet a lot of things. It seems the more they meet and greet, the more likely they are to be in balance, and the less likely they are to let any one microorganism grow out of control, as occurs with infection.

Q. What is the microbial diversity like in soil?

A.

In one teaspoon of soil there are more organisms than there are humans on our planet. Soil houses about 25 percent of the world’s biodiversity. What we also know from studies is that when children spend time in green environments – in natural playgrounds, for example, or in parks and forests – they perform better on standardized tests, they’re more creative, they’re happier and their cortisol levels are lower, so they’re calmer and less stressed. And I think that might be somewhat related to the kind of organisms they’re exposed to when they’re playing outdoors.

Q. Can you talk about how microbial diversity in soil relates to food?

A.

The organisms in soil have an impact on the health of our food. Part of what makes fruits and vegetables good for us is the phytonutrients in them – the things that make cranberries red or coffee bitter. Phytonutrients are part of the plant’s immune systems. Organisms in the soil that we might think of as pests actually stimulate plants to make more phytonutrients. So these small stressors actually in a sense enhance our health. Being exposed to different organisms improves the health of the plant and it improves our health as well.

Q. Based on your research, what are some things you would like to see change?

A.

I think we need more outdoor and nature-based curriculum in schools because this actually benefits children from a health perspective and a learning perspective. Children are more focused and they

perform better on tests after they've spent time outside in nature. In Japan there's this idea called "Shinrin-yoku," or forest bathing, which means taking short visits to the forest. It's been shown to reduce inflammatory markers in the body and boost beneficial hormones. We know there are many physical benefits to children being outdoors and being physically active in nature

Q. As someone who lives in New York City, how do you manage to spend time in nature?

A.

We live in the Bronx, and although a lot of people may not realize it, the Bronx actually has a tremendous amount of parkland. We go to Van Cortlandt Park as well as the Bronx Zoo and the New York Botanical Garden, which are all very close by. We live by Riverdale Park, which is a beautiful little forest. We visit Bear Mountain and Rockefeller State Park and go on beautiful hikes. And we go to Central Park. It's actually not that difficult to get to a lot of these places for a day trip.

Q. How do you incorporate the food philosophy you've talked about into your life?

A.

When I was initially going through this journey, I lived in an apartment. But I found an office in the Bronx that had an empty lot out back and I decided to start a garden there. The soil was like dust, so we had to enrich it. And we planted a food forest. There were fruit trees. I grew cold-hardy kiwis, beans, melons, berries and then vegetables. We ate fresh produce that we grew in the garden. And I decided to keep chickens.

Q. Do you still maintain it?

A.

Now I live in a house with a little yard so I keep the chickens in my garden and we grow vegetables there. I like to know where my food is coming from. I want to eat eggs from chickens that are scratching outside and exposed to the sun and nibbling on greens. So I did those things and although it was difficult, it wasn't nearly as difficult as I thought it would be. It was far more accessible than most people would imagine. We also shop at farmers' markets once or twice a week to stock up and add to what we're growing.

Q. How does your family get involved?

A.

I have three kids and they love it. It's a family affair. They help me plant. They help me weed. They run outside when I'm cooking dinner to harvest celery, parsley or tomatoes. Sometimes in the morning they run outside to see if the chickens have laid eggs. My husband helps too. He appointed himself keeper of the chickens.

Q. What are some recommendations for people who live in very urban environments?

A.

Take a trip to the forest with your family. It may be difficult during the week, but maybe you can do it on the weekends. That's another reason why we should also be valuing green spaces in cities. Community gardens are also wonderful. So are farmers' markets. They expose children to fresh foods, which taste completely different. And it also exposes them to potentially healthy microbes through the traces of soil that might be left over on the fruits and vegetables when you buy them at a farmers' market.

<http://well.blogs.nytimes.com/2016/02/11/how-the-dirt-cure-can-make-for-healthier-families/>