

MILLIONS AGAINST MEDICAL MANDATES

How Medicine Fails to Protect Children's Health from Chronic Disease

How Medicine's Ignorance of the Role of Environmental Toxins in Children's Health Signals the Need for Greater Reform

By Nate Doromal



Attention parents, family members, and concerned citizens!

Children's health is getting worse. And it has been doing so for decades.

While the COVID-19 pandemic brought about widespread changes to our daily lives, forcing us to reexamine our lives and values in the wake of the crisis, it also brought widespread examination and criticism of our medical systems.

Medicine has heralded the need for intervention to protect children from COVID. However, despite the [startlingly low risk of COVID for children](#) (akin to the [risk of being struck by lightning](#)) and the [harmful](#)

[health effects of masking a child](#), the CDC pushed a policy for masking children in schools, an approach that The Atlantic criticized as [flawed and based on shaky science](#).

Now health authorities are pushing the [COVID vaccines for children](#) despite the [questionable risk benefits](#) to a demographic that has never been at risk for COVID while downplaying potential hazards such as [myocarditis](#).

Despite the fear-mongering from the media, infectious diseases, including COVID, are not the foremost health concerns for children. A look at the [top ten causes of childhood mortality](#) reveals the top three medically-related conditions are cancer, congenital anomalies, and heart disease.

On the contrary, the top health concerns for children are *chronic conditions*. The [British Medical Journal](#) (BMJ) stated in 2016 that "the primary burden of disease in children and young people has shifted from infectious diseases towards chronic conditions."

This shift has been occurring over decades and medicine offers no easy answers for underlying causes. Much of the belief is that the onset of these diseases is genetic. But this is a simplistic answer that ignores deeper reasons.

As we will see, modern medicine has largely ignored a significant potential source of problems - *environmental toxins*.

Here we will examine the problem of declining children's health, bring up known environmental toxins that could play a role in that decline, and show how medicine needs to reorient towards a broader vantage point in order to make progress on children's health.

The Normalization of Chronic Illness in Children

It's suddenly become the norm for children to have a chronic illness.

A [review by Children's Health Defense](#) paints a stark picture. Despite higher per capita health spending, children have [poorer health outcomes](#) than other Western nations. In addition, the review shows that every chronic illness is on the rise in children, including asthma, attention-deficit/hyperactivity disorder, allergies, autoimmunity, etc.

The CDC's analysis corroborates these facts. According to them, [40% of school-aged children have at least one chronic health condition](#), such as asthma, obesity, other physical conditions, and behavioral/learning problems. The CDC further states that there are [significant year-over-year increases in cases of diabetes in youths younger](#) than 20 years, with gains of 4.8% per year for type 2 diabetes and 1.9% for type 1 diabetes.

It turns out that mental health issues are on the rise in children. A [five-year study on US children's health and well-being](#) found that rates of anxiety and depression in children rose 30% from 2016 to 2020. A [survey done on young people in the UK](#) saw a 19% increase in the proportion of mental disorders between 1999 and 2017. The CDC estimates that as many as [1 out of 5 children experience a mental illness](#) in any given year.

There has been a stellar increase in obesity in children. [Childhood obesity prevalence is ten times higher](#) now compared to 1970. Obesity increases the [risk for many serious diseases](#), including high blood

pressure, type 2 diabetes, coronary heart disease, stroke, and mental illness. In addition, childhood obesity is [associated with lower IQ](#).

Medicine has been aware of the rise of chronic illnesses in children, yet it cannot explain why. If it cannot understand these chronic illnesses, medicine cannot prevent them. Nor does medicine deal with the underlying causes of these illnesses.

Instead, medicine places its focus on the short-term treatment of *symptoms*. Children with diabetes are given insulin for the rest of their lives, asthma patients are given inhalers, children with severe food allergies carry around EpiPens, and many others take a cornucopia of pharmaceutical drugs.

Medicine is not hurrying to change the status quo. There is no accompanying public health mobilization to find permanent solutions to chronic illness as there was with COVID-19. Instead, things are fine and dandy as clinicians prescribe short-term remedies while passing the buck on dealing with root causes.

It's the environment, stupid!

We can take a lesson from former president Bill Clinton when he drove the point "It's the economy, stupid" to win the presidential nomination against incumbent George Bush.

Medicine has focused on genetics and infectious diseases for the science policy of the last few decades. But these factors do not explain the rise in chronic illnesses. Human genetics remains the same, and infectious disease has been diminishing since the early 1900s.

The actual suspect here is the environment - *something has changed in the environment that is leading to an increase in chronic illnesses in children*.

Simply put, *it's the environment, stupid*. If we want to truly solve the problem of chronic illness, we have to look at the possibility that something in the environment is causing harm to people's health.

But when has a clinician ever had a heart-to-heart talk with you about the toxins in your environment? For most people, it's never. In truth, most clinicians do not know how to [assess or educate patients about environmental toxins](#).

But it's not just mere suspicion. We have plenty of science to back it up. And we've known about it for decades.

Medicine and Environmental Toxicity - A Dismal History

You should know that the history of environmental toxicity has been a dismal one.

Think about it. Why is gasoline sometimes branded as "unleaded?" Because [harmful lead additives](#) were once added to it. Banned in the USA in 1966, according to NBC, leaded gasoline has ["blunted" the IQ of half the US population](#).

How about asbestos? It was used as insulation in buildings throughout the world. However, it turns out that [asbestos fibers can be released into the air and cause damage to the lungs](#). Each year [12,000 to 15,000 people die of asbestos-related causes in the USA](#). Though the first documented death was in 1906, and while many other nations in the world have banned the use of asbestos, the [USA remains one of the few countries not to have entirely done so](#).

Another prominent example is the [use of the pesticide DDT](#). During the 1940s and 1950s, DDT was widely used as an agricultural insecticide on both farms and in neighborhoods. Health authorities encouraged the use of DDT in the USA to [stop the spread of polio](#) and to [stop the spread of malaria in third-world countries](#). You can find [pictures of trucks spraying DDT](#) in front of smiling families. All of these led to enormous profits for chemical companies.

This changed in 1962 when Rachel Carson published the book [Silent Spring](#), which documented DDT's physiological and environmental effects. She brought attention to FDA data that showed that [DDT was carcinogenic](#). She also brought attention to the intentional use of disinformation by chemical companies.

Her book changed public sentiment against DDT, eventually leading to its ban in the USA in 1972. Despite this ban, US chemical companies still manufacture DDT for sale in foreign countries.

The Playbook for Profiting from Environmental Toxins

We can learn much about looking at patterns from the history of environmental toxins. The design is always the same:

1. A corporate company develops a new chemical with commercial applications.
2. The company petitions the government regulators for approval by presenting safety data from its non-peer-reviewed, internally generated studies.
3. The company markets the new product, which is then successfully adopted throughout society, and the company makes substantial profits.
4. Researchers and whistleblowers start to come forward about the dangers of the chemical.
5. The company goes into *defense mode* to protect its profits and limit liability by launching PR campaigns, hiring its team of experts to assure the public the chemical is safe, and attacking opposing researchers using *character smear tactics*.
6. The chemical hurts real people, and the epidemiological data of harm accumulates.
7. The company strategically delays public action by questioning safety data, calling for more studies, and influencing legislators via political lobbying.
8. Eventually, the number of people harmed and the opposing research becomes so overwhelming that public change begins to happen.

The pattern should be familiar when considering one of the most well-known environmental toxins, cigarette smoking. The health consequences of cigarettes are devastating - an [estimated 480,000 deaths are attributable to smoking per year just in the United States](#).

But what is not commonly known by the public is that the [tobacco companies knew about the harms of cigarette smoking for over 40 years but hid the data from the public](#), a sinister act that has harmed untold numbers of people.

Moreover, this sinister act includes numerous professionals, researchers, doctors, and politicians. It is almost too much for the average person to believe.

In the instances described, it is essential to note just *how slow the medical community was to act on reports of harm to people*. The spread of new knowledge moves at slug-like speeds and can take decades to permeate the medical community.

Moreover, the health effects of environmental toxicity can be myriad, and it is easy for clinicians to accept the default route (not to mention more profitable) of treating symptoms without searching for an underlying cause. As a result, it is easy for medical professionals to fall into the traps of [blaming the victim](#) and [groupthink](#).

Though people want to believe that things are different now, it would be naive to do so. The same pattern occurs with chemicals used right now; you must protect yourself and your family.

Environmental Toxins You Should Know About

Just as COVID-19 quickly became a household word, there are several environmental toxins that everyone should know about. We will cover a few key ones here.

The Facts on Polychlorinated Biphenyls (PCBs)

Polychlorinated Biphenyls (PCBs) are highly carcinogenic manufactured chemical compounds with no taste or smell. They were manufactured in 1929 and then [distributed by the chemical company Monsanto](#) starting in 1935. PCBs were used in many industrial settings until its adverse effects became known, leading to its [banning in the USA in 1979](#).

PCBs have been used in various [applications](#), including electrical equipment, surface coatings, inks, adhesives, flame-retardants, and paints. For example, if you walk around and see an [old electrical transformer on a powerline](#), it might have PCBs.

Additionally, PCBs have the unfortunate property of being a "forever chemical" because they take a very long time to break down and thus circulate throughout the environment, going from the air to the soil, into plants and animals, and [into our bodies from eating, drinking, or breathing](#).

Most people would be surprised to know that PCBs are so prevalent that just about all of us have [some amount of PCBs in our bodies](#). PCBs can accumulate in our bodies and [stay there for decades](#).

PCBs are present in our environment in many ways. For example, General Electric used the Hudson River in New York as a [discharge outlet for PCBs](#) for over 30 years, thus leading to its heavy contamination. A global study found that [90% of free-range eggs have PCBs contamination](#). PCBs can be [passed to humans from contaminated fish](#). PCBs can even be in the air; [contaminated indoor air in older buildings is a concern](#).

The [adverse effects of PCBs](#) are well-established. There is clear evidence that PCBs have toxic effects on animals and humans. The EPA concludes that PCBs are a probable human carcinogen. PCBs have been shown in human and animal studies to hamper the immune system and increase susceptibility to infections. Studies suggest that infants exposed to heightened levels of PCBs are at higher risk of impaired neurological deficits and learning disorders. These are just some negative effects, and [there are far more](#), including damage to reproductive organs and the liver.

The Facts on Per- and Polyfluoroalkyl Substances (PFAS)

PFAS is an acronym for the complicated-sounding *per- and polyfluoroalkyl substances*. This group of chemicals has been the recent talk around environmental circles as the EPA warns that [PFAS is more dangerous than previously thought](#).

Like PCBs, PFAS is another class of "forever chemicals" that, once released into the environment, degrade very slowly and spread through the ecosystem, causing damage to humans and animals. Unfortunately, it is [pervasive in our daily lives](#), homes, and workplaces. Just about everyone is exposed to some level of PFAS.

PFAS were created in the 1940s and, since the 1950s, have been widely distributed by the company 3M. 3M is now [facing increasing litigation costs](#) for its role in contaminating the environment with PFAS.

PFAS can be [found in drinking water](#), soil near waste sites, fire extinguishing foam, food, food packaging (such as microwave popcorn bags, pizza boxes, candy wrappers, and even [the kind used in restaurants](#)), household products, dust (i.e., especially in stain and water-repellent chemicals), and certain personal care products. It is even [present in the food chain of the Arctic circle](#).

Certainly, you have heard of Teflon non-stick pans; they were heavily marketed by the chemical company Dupont and are still [being offered to the public](#). They contain PFAS. The use of the Teflon cookware has [spread PFAS into the bodies of millions of Americans](#), and it is the subject of the documentary "[The Devil We Know](#)."

The health effects of PFAS are very concerning. PFAS are hormone-disrupting chemicals that have a [wide variety of adverse effects](#), such as interfering with human fertility, [impairing thyroid function](#), increasing cholesterol levels, causing low birth weight in infants, and increasing the risk for certain cancers. Moreover, a [2013 study](#) found associations between heavily exposed communities and the following conditions: kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, hypercholesterolemia, and pregnancy-induced hypertension.

Additionally, they can [suppress the immune system](#) such that [antibody response is diminished](#). For vulnerable populations, PFAS would increase the risk of severe COVID. There is a risk for immune system dysregulation, thus [increasing the risk of autoimmune disease](#).

With so many products containing PFAS offered to the public, it remains to be seen how, exactly, the EPA will act. Until then, it is up to individuals to protect themselves from it.

The Facts on Glyphosate

There is a dark side when you see perfect-looking lawns at houses or golf courses in your neighborhood. These perfect lawns result from *frequent herbicide application to control weeds* and often have the [cost of negative health effects](#) on the people that live in that area, as well as contamination of waterways and damage to the surrounding ecosystem.

The history of glyphosate is fascinating when viewed in light of the patterns of environmental toxicity described before. Glyphosate, used as an herbicide and a pesticide, was initially brought to market by the company Monsanto (now owned by Bayer) in 1974, and it is one of the world's most successful chemical products. You will find it at your favorite home improvement store under its brand name, Roundup.

From its inception, glyphosate has been [mired in controversy](#). In 1985, it was classified by the EPA as a [Class C Carcinogen](#) (suggesting that the compound could cause cancer), but this decision was reversed in 1991, during which glyphosate was re-classified as a non-carcinogenic Class E Carcinogen.

This decision set the stage for the expansion of glyphosate use and the introduction of [glyphosate-resistant genetically-modified crops](#) (GMO) in the 1990s. The glyphosate market alone is a multi-billion

dollar industry and [over 200 million pounds of glyphosate](#) is sprayed yearly in the USA. GMO foods are often associated with [higher levels of glyphosate content](#).

The prevalence of glyphosate in our daily lives is astounding. A CDC study found that [80% of urine samples in children and adults were glyphosate-positive](#). An independent study found that [glyphosate is present in foods from popular restaurants](#). Another study by the Detox Project found the presence of [significant amounts of glyphosate in foods in grocery chains](#). Glyphosate can even be [present in tap drinking water](#).

Currently, as of August 22, 2022, the [EPA claims that the use of glyphosate is safe](#). They state that there are "no risks of concern to human health from current uses of glyphosate" and "no evidence that glyphosate causes cancer in humans nor is an endocrine disruptor." While it is easy for busy people to stop at this government assessment, we will see that the science is far from settled and the concerns are genuine.

At this moment, your body's cells are engaged in a complicated dance of activity, transforming chemicals into ones needed for critical bodily functions. The term [biological pathway](#) describes this dance. Glyphosate works to [kill plants by disrupting a particular pathway](#) that plants rely upon called the *shikimate pathway*.

The EPA and Monsanto argue that glyphosate is safe for human consumption because [humans do not have the shikimate pathway](#). However, they omit from their analysis that [many bacteria in the human gut have the shikimate pathway](#) and are killed by glyphosate. In addition, it is well-known that [glyphosate has been patented for use as an antibiotic](#). Therefore, the widespread presence of glyphosate in the food supply may be disrupting the human gut microbiome.

At this moment, trillions of microorganisms populate your gut and can dramatically affect your health. However, medicine has only recently [understood the importance of the gut microbiome](#). The gut microbiome affects your body in numerous ways, including digesting fiber, helping control your immune system, affecting your brain health, and modulating your body weight.

As covered by this [Forbes article](#), the concerns about glyphosate's disruption of the human gut microbiome are genuine. However, a 2017 EPA Draft Human Health Risk Assessment review shows that the [EPA did not consider glyphosate's effect on the human microbiome](#) in their glyphosate assessment of human health.

The risks to human health could be far more significant than the EPA acknowledges. The World Health Organization's International Agency for Research on Cancer (IARC), a working group of 17 experts from 11 countries, reviewed over 1,000 studies and concluded that [glyphosate is a possible carcinogen and that there was "strong" evidence that it is genotoxic](#), meaning capable of damaging DNA thus leading to mutations and possibly cancer.

How could two respected government-affiliated institutions, the EPA and IARC, reach vastly different conclusions? A [2019 European study](#) sought to answer this question and found some damning results. While the IARC relied mainly upon studies drawn from the peer-reviewed literature, the EPA relied mainly upon "registrant-commissioned, unpublished regulatory studies," many of which were done by the glyphosate manufacturers themselves.

More recent research paints a broader picture of harm to health. A [2020 review published in the Journal of Immunotoxicology](#) corroborates the IARC findings of genotoxic effects. However, it adds additional adverse effects such as increased oxidative stress, disruption of estrogen pathways, impairment of brain functions, and causes the immune system to become more pro-inflammatory. Another [study published in 2021](#) conjectures that glyphosate could be behind the worldwide increase in thyroid disorders.

But perhaps the most concerning health effects are glyphosate's effect on the brain. A 2022 study found that [glyphosate can infiltrate the brain and cause inflammation](#). Another 2022 study found that [disruption to the gut microbiome could play a role in severe neurological disorders](#) such as Alzheimer's disease, Parkinson's disease, and multiple sclerosis. Finally, a 2020 study found that mothers' exposure to glyphosate while pregnant increased [their children's risk of autism-like behaviors](#).

Dr. Stephanie Seneff of MIT, author of the book "[Toxic Legacy: How the Weedkiller Glyphosate Is Destroying Our Health and the Environment](#)," has long sounded the alarm on the problem of glyphosate. In addition to harming the gut microbiome, she states that "the evidence is solid that glyphosate substitutes for the coding amino acid glycine by mistake during protein synthesis." This disruption to the body's protein synthesis could be why many chronic diseases rise in lockstep with glyphosate usage.

The Way Forward - Genuinely Protecting Children's Health

Given that we have been through a pandemic, it is easy to become discouraged about all these environmental toxins. A common reaction to this new information is, "What does this have to do with me? We are all exposed anyway. Can I even do anything about it?"

It's easy to feel like we are helpless cogs in a giant machine played like puppets by an uncaring system. It's easy to feel like we can't do anything about it and that we should accept the state of affairs. Unfortunately, it is also easy to take the mentality of "let the experts fix it."

However, the truth is that *we can do something about it*. It doesn't take an MD to understand the following simple principle. Functional medicine specialist Dr. Andrew Weil said, "The best way to detoxify is to stop putting toxic things into the body and depend upon its own mechanisms."

Exposure levels to these dangerous chemicals vary considerably in the populace. Some people are exposed to exponentially higher levels of pollutants than others. The truth is that *you can take action to reduce your exposures now and detoxify your environment*.

The following actions are within your power to take:

- Use a water filter at home that can [filter out PFAS](#) and [PCBs](#) from your drinking water. There are standalone units like the [Berkey water filter](#) and under-the-sink units like [Hydroviv](#).
- Immediately shift your food purchases and consumption towards more organic foods. According to studies, this can [lessen the burden of pesticides on your body](#).
- Purchase an air purifier that can [filter out volatile organic compounds](#). These are [human-made compounds emitted as gasses](#) from products in your home.
- Get on an exercise program. Increased sweating, breathing, and blood circulation will [increase the body's detoxification ability](#).
- Reduce your exposure to processed foods and start eating more natural foods. Processed foods have more additives and food chemicals in them. A recent study from Brazil found an [association between processed food consumption and the rate of cognitive decline](#).

- Eat more foods that can [aid your body's detoxification capabilities](#), such as leafy greens, apples, beets, turmeric, and ginger.
- Practice intermittent fasting. This practice has been shown to [aid in detoxification](#) and [boost your brainpower](#).
- Audit your home and environment for products that contain suspicious chemicals. Toss these products and find more natural replacements.
- Share this info with your friends, family, and clinicians. We need to make the topic of environmental toxicity better known!
- Join and support non-profits such as [Moms Across America](#) that are campaigning to remove pesticides from our environment.
- Encourage your local and state politicians to take action against the spread of these harmful chemicals, especially the rampant spraying of glyphosate in public areas.

On a larger scale, *we need medical reform*. It is unacceptable for doctors, scientists, and government regulators to have ignored the problem of environmental toxicity for too long. Moreover, it is intolerable for doctors and clinicians to treat symptoms while ignoring the root causes of declining children's health.

The practice of medicine has become too insular and too reductionistic. Our children deserve medicine that takes a larger view of health beyond just infectious diseases. There can be no health for our children if they are suffering from chronic illnesses in perpetuity.

The practice of medicine in the 21st century is at a crossroads and it remains to be seen if it can take the necessary steps to safeguard children's health.

In the meantime, do what you can to educate and protect yourself.

About the Author: Nate Doromal is a long-time systems engineer with experience from Google and the trading industry. He holds an MBA and Master of Computer Science from the University of Chicago. He is also a medical researcher and health journalist. His research focuses on the interplay of societal trends, institutional changes, and the subsequent effects on the ordinary person. He is also a member of MAMM's Collaborative Collaboration Committee.