

Are you breastfeeding toxins to your child ?

written by Pure Living | July 13, 2024



Toxic Chemicals in Breast Milk: A Threat to Fetal Development

A recent study published in Environmental Science & Technology has shed light on the alarming presence of toxic chemicals in breast milk, which can have devastating effects on fetal development. Researchers at the University of Texas at El Paso (UTEP) discovered that nanoplastics and per- and polyfluoroalkyl substances (PFAS) can alter the structure and function of proteins critical to human development, potentially impacting child development.

The study, titled "[Toxic chemicals in breast milk: Nanoplastics and PFAS alter protein structure and function](#)", found that exposure to these toxic chemicals can disrupt the normal functioning of proteins such as beta-lactoglobulin (BLG), alpha-lactalbumin, and myoglobin. These proteins play a crucial role in fetal development, and any alterations to their structure and function can have far-reaching consequences.

The presence of nanoplastics and PFAS in breast milk is a growing concern, as these chemicals are commonly found in consumer products, food packaging, and even in the

environment. The UTEP study highlights the need for immediate action to reduce exposure to these toxic chemicals, particularly for pregnant women and new mothers.

The impact of these chemicals on fetal development cannot be overstated. Exposure to nanoplastics and PFAS during pregnancy has been linked to a range of health problems, including:

- Neurodevelopmental delays
- Reproductive issues
- Cancer
- Immune system dysfunction

Given the potential risks, it is essential for pregnant women and new mothers to take steps to reduce their exposure to nanoplastics and PFAS. Remember that you can reduce your overall body burden of these chemical by avoidance and detoxification approaches. To be clear there is no way to completely eliminate these from our body or from being exposed inadvertently.

Action Steps:

1. **Avoid heating food in plastic containers:** When heating food, use glass or ceramic containers instead of plastic to reduce the risk of nanoplastic leaching.
2. **Choose PFAS-free products:** Opt for personal care products, such as shampoo and lotion, that are labeled as PFAS-free. This is rare currently however a number of manufactures have opted in removing these toxins.
3. **Use a water filter:** Install a water filter at home to reduce exposure to PFAS-contaminated water. See our article on this subject at: [Less-Toxins in your Water](#)
4. **Avoid non-stick cookware:** Replace non-stick cookware with stainless steel or cast iron alternatives to

reduce exposure to PFAS.

5. **Wash your hands frequently:** Regular handwashing can help reduce the transfer of nanoplastics and PFAS from contaminated surfaces to your body.
6. **Avoid microwaving in plastic:** Avoid microwaving food in plastic containers, as this can cause nanoplastic leaching.
7. **Choose organic produce:** Opt for organic produce to reduce exposure to PFAS-contaminated soil and water.
8. **Ditch the liners** that prevent your burgers and/or pizza from staining the box or your hands.

By taking these simple steps, pregnant women and new mothers can significantly reduce their exposure to nanoplastics and PFAS, protecting their health and the health of their children.

The UTEP study serves as a wake-up call for the need to address the presence of toxic chemicals in breast milk. It is essential that we take immediate action to reduce exposure to these chemicals and prioritize the health and well-being of our children as the impact is magnified for future generation in addition to the decline of function for our children. Consider also writing your elected representatives and making a point of purchasing wisely.

References:

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- [“Nanoplastics and PFAS in breast milk: A review of the evidence” \(Environmental Health Perspectives, 2020\)](#)
- [An environmentally relevant mixture of per- and polyfluoroalkyl substances \(PFAS\) impacts proliferation, steroid hormone synthesis, and gene transcription in primary human granulosa cells](#)

Air Conditioning: the good and bad

written by Alan Kadish | July 13, 2024



Prolonged Exposure to Air Conditioning: The Hidden Dangers and Benefits

As the summer months approach, many of us turn to air conditioning (A/C) to escape the sweltering heat. While A/C can provide relief from the heat, prolonged exposure to these systems can have negative effects on our health and our environment.

Sleep Disturbances

While air conditioning can be a lifesaver on hot summer days, there are some potential drawbacks to consider. For example, exposure to loud A/C units has been shown to disrupt sleep patterns, leading to fatigue, mood disturbances, and decreased cognitive function (1). In a study published in the Journal of Sleep Research they found that noise levels above 40 decibels can significantly impair sleep quality (2).

However, there are also benefits to using air conditioning. For one, cooler temperatures can promote better sleep. A study

published in the journal *Sleep* found that a cooler sleep environment (around 60-67°F) can improve sleep quality and duration (10). Additionally, air conditioning can improve sleep quality by reducing the risk of heat-related sleep disturbances (12).

But that's not all. Cooling the body before sleep can also improve sleep quality and reduce sleep disturbances (13). And, air conditioning can reduce sleep disruptions caused by heat and humidity (14). In fact, sleep quality is affected by both temperature and humidity, with cooler and drier conditions promoting better sleep (15).

Overall, while there are some potential drawbacks to using air conditioning, the benefits outweigh the costs for most people. By choosing a quiet and well-maintained air conditioning unit, and using it in conjunction with other sleep-promoting strategies, you'll be able to enjoy a more restful and refreshing sleep.

Heat Intolerance

Prolonged exposure to air conditioning can lead to heat intolerance, a condition where the body becomes less able to regulate its temperature in hot environments. This can be particularly problematic for individuals who are already prone to heat-related illnesses, such as heat exhaustion or heat stroke.

Studies have shown that prolonged exposure to air conditioning can lead to a decrease in the body's ability to sweat, which is a natural mechanism for cooling the body (15). This can be especially concerning for individuals who are already experiencing heat-related symptoms, as it can further exacerbate their condition.

In addition to decreased sweating, prolonged exposure to air conditioning can also lead to a decrease in the body's ability

to regulate its temperature (16). This can cause the body to become overheated, leading to symptoms such as headaches, fatigue, and dizziness.

It's important to note that heat intolerance is not limited to individuals who are already experiencing heat-related symptoms. Anyone who is exposed to prolonged periods of air conditioning can experience heat intolerance, regardless of their overall health. Keep perspective, this is a small population and not common.

Prolonged exposure to A/C-controlled environments can also lead to heat intolerance, making it difficult for our bodies to regulate temperature fluctuations. This can increase the risk of heat-related illnesses, such as heat stroke, especially in individuals who are not accustomed to hot temperatures (3).

Immune System Suppression

Cold air can weaken the immune system, making us more susceptible to viral and bacterial infections (4). A study published in the Journal of Allergy and Clinical Immunology found that exposure to cold air can reduce the body's natural killer cell activity, leading to impaired immune function (5). Did you know that cold exposure harms our nasal antiviral immunity ? (6)

Muscle Pain and Stiffness

Muscle pain is a common symptom of air conditioning exposure, and it can range from mild discomfort to severe pain. The pain can be felt in various parts of the body, including the back, neck, shoulders, and legs. In some cases, the pain can be so severe that it can interfere with daily activities and even affect sleep.

So, what causes muscle pain from air conditioning exposure?

One of the main culprits is the sudden change in temperature and humidity. When we step into an air-conditioned space, our bodies are suddenly exposed to a cooler and drier environment. This can cause our muscles to contract and tighten, leading to pain and stiffness.

Another factor that can contribute to muscle pain from air conditioning exposure is the lack of moisture in the air. When the air is too dry, it can cause our skin and muscles to become dehydrated, leading to pain and discomfort.

Prolonged exposure to cold temperatures can also cause muscle pain and stiffness, which can then exacerbate conditions such as arthritis (6).

Mold and Indoor Air Pollution

Mold and air conditioning are a common combination that can have serious consequences for your health and the integrity of your home. When air conditioning systems are not properly maintained, they can create an ideal environment for mold growth. This is because air conditioning systems can create a humid environment, which is perfect for mold to thrive. Mold can grow in air conditioning systems through condensation, water leaks, or other sources of moisture.

Poorly maintained A/C systems can create a breeding ground for mold and bacteria, leading to indoor air pollution and respiratory problems (7). A study published in the Journal of Environmental Health found that indoor air pollution can increase the risk of respiratory diseases, such as asthma and chronic obstructive pulmonary disease (8).

If left unchecked, mold can cause serious health problems, such as respiratory issues, asthma, and other respiratory diseases. In addition to health problems, mold can also cause damage to your home, including discoloration and damage to walls, ceilings, and other surfaces. To prevent mold growth in

your air conditioning system, it is important to regularly maintain the system, including cleaning it regularly, checking for leaks, and ensuring that it is properly ventilated.

In addition to regular maintenance, there are also some steps you can take to prevent mold growth in your air conditioning system. Using a safe mold-killing product in your air conditioning system can help kill mold and prevent it from growing.

One easy method of determining your humidity is to purchase a hygrometer (moisture meter) online. You're looking to keep the setting in the low 40% range. If the moisture levels excessive, using a dehumidifier in your home can help reduce the level, making it less likely for mold to grow.

Dehydration and Dry Skin

Dry skin is a common problem that many people experience when air conditioning is used extensively. When air conditioning is used, it can dry out the skin by reducing moisture from the air. This can lead to dry, itchy, and flaky skin that can be uncomfortable. Air conditioning can also strip the skin of its natural oils, leading to dryness and irritation.

To combat dry skin caused by air conditioning, it is important to take steps to moisturize the skin. This can be done by using a humidifier in the home to add moisture back into the air, and by applying a moisturizer to the skin after bathing or showering. It is also important to avoid using hot water when bathing or showering, as this can strip the skin of its natural oils and make it even drier. Taking these steps keeps the skin hydrated and healthy, even in the dry air of an air-conditioned home.

Another consideration is that A/C-controlled environments can not only lead to dehydration and dry skin, but make it more difficult for our bodies to regulate temperature fluctuations

increasing the risk of skin irritation (9).

Conclusion

While A/C can provide relief from the heat, it is essential to maintain these systems properly to minimize the negative effects on your health and the environment. By maintaining your A/C systems and being aware of the potential risks, you can enjoy the benefits of air conditioning while minimizing its negative impacts.

Here are a few tips:

- Maintain your air conditioning unit: Check for leaks, ventilation and clean the unit regularly
- Clean your ducts
- [Check your air quality for mold and more](#)
- Replace your filters regularly
- Take regular breaks to stretch and move around when you're in an air-conditioned space.
- Get a moisture meter and check regularly
- Use a humidifier to add moisture to the air and prevent dehydration if the levels <40% or >50%.
- Avoid sudden changes in temperature and humidity by gradually adjusting the thermostat.
- Consider using a fan or other cooling device that doesn't rely on air conditioning.

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2. "Noise and Sleep Quality" (Journal of Sleep Research, 2015)
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4. "The Effects of Cold Air on the Immune System" (Journal of Allergy and Clinical Immunology, 2016)
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6. "Cold exposure impairs extracellular vesicle swarm-mediated nasal antiviral immunity"(Mech of Allery/Immunology 2023)
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**Are your natural or synthetic
household items more**

fireproof

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Home contents and house fires

Many of us think that natural fibers will combust more readily than synthetics. Well the truth is very different.

Back in 2009 the Fire Safety Research Institute (FSRI) conducted some experiments with typical home rooms, lite a fire and took time delay films. Very interesting to see the difference in both the timing of the flame propagation and the amount of smoke that's produced.

House fires that involve synthetic materials, such as plastics, rubber, or foam, will create a toxic smoke that's a combination of gases and particles. The smoke can contain multiple dangerous chemicals, including,

- Hydrogen cyanide: A poisonous gas that can cause headaches, dizziness, nausea, and vomiting. It's produced when synthetic polymers like nylon and polyurethane, or natural fibers like wool and silk, aren't fully consumed during a fire.
- Dioxins: A byproduct of burning chlorine-containing products, like plastics.
- Carbon monoxide: An asphyxiant gas.
- Acids: Such as hydrochloric and sulfuric acid.
- Oxides of nitrogen: An irritant gas.
- Polycyclic aromatic hydrocarbons: A complex molecule of toxins.

Although the original experiments in this study were done in 2009 it's worth noting the significance.

In a study , "[Analysis of Changing Residential Fire Dynamics](#)" 2011 they found that our homes are changing including more open concept layouts, higher ceilings (more air), and more furnishings that can lead to faster fires. And the really bad news, newer materials used in our homes literally get the thumbs down on their response to fire.

Their conclusion: "It was very clear that the natural materials in the legacy room released energy slower than the fast burning synthetic furnished modern room. The times to flashover show that the a flaming fire in a room with modern furnishings leaves significantly less time for occupants to escape the fire."

In 2020 FSRI captured a new [side-by-side burn comparison of natural and synthetic home furnishing](#). Since the original comparison video was released in 2009, FSRI has repeated the same experiment several times with similar results in terms of flashover times between the natural and synthetic furnished rooms. The flashover data from those experiments are very telling when you consider your ability to escape the fast moving fire.

Take Aways :

Limit the amount of synthetic furniture and furnishings

Always keep fire extinguishers available and currently inspected

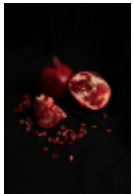
Remember smoke rises so get down lower to the floor in a fire

Exit the building if its out of control and get to fresh air ASAP

Watch the film as its really amazing the difference between the rooms

Some Pesticides with your Pomegranate juice and pistachios ?

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Not Wonderful, The Wonderful Company is Spraying Toxic Paraquat on pomegranates and pistachios

Introduction: When a company promotes the health benefits of its products, we expect it to prioritize the well-being of its workers and the communities it serves. Unfortunately, Wonderful, the company behind popular brands like **POM pomegranate juice** and **Wonderful pistachios**, falls short in this regard.

The Issue: A recent analysis by the Environmental Working Group (EWG) reveals that Wonderful is the **second-largest** user of toxic paraquat in California. In 2021 alone, the company sprayed over 56,000 pounds of paraquat on its pomegranate, pistachio, and almond trees. Paraquat, according to the Centers for Disease Control and Prevention (CDC), has been linked to serious health risks, including Parkinson's disease, non-Hodgkin lymphoma, and childhood leukemia.

The Urgent Call: We all vote with our dollars daily. Perhaps

it's time to change the brand you purchase, let this company know your thoughts and go organic ?

Why Paraquat Is a Concern:

1. **Health Risks:** Paraquat is so toxic that it has been banned in more than 60 countries. The EPA has even prohibited its use on golf courses. [Workers who handle paraquat are more than twice as likely to develop Parkinson's disease compared to those using other pesticides](#)¹.
2. **Environmental Impact:** Paraquat can drift away from farmland, affecting nearby communities. This poses a risk to public health and the environment.

Regulations:

[The EPA continues to defend its use in the U.S., despite mounting evidence of its negative impact on human health.](#)

[Fifty-eight countries, including China and members of the European Union, have banned paraquat due to its extreme toxicity, including its connection to Parkinson's disease](#)¹. [Some of these countries include Austria, Denmark, Finland, Kuwait, Slovenia, Sweden, Chile, Germany, Hungary, South Korea, Indonesia, and Togo](#)².

Health Benefits:

Pomegranates are significant in terms of their health benefits. They include being an antioxidant, anti-inflammatant, have anti-cancer and heart benefits, and might be helpful for your urinary tract.

Rich in Antioxidants:

- Pomegranates contain an array of antioxidants, including punicalagins, anthocyanins, and

hydrolyzable tannins.

- [These antioxidants help protect your cells from damage caused by free radicals, supporting overall health and preventing chronic diseases¹.](#)
- **Anti-Inflammatory Properties:**
 - Chronic inflammation is linked to conditions like heart disease, type 2 diabetes, and cancer.
 - Pomegranates may help prevent inflammation due to compounds like punicalagins, which have antioxidant and anti-inflammatory effects.
 - [Research suggests that consuming pomegranate juice can reduce certain markers of inflammation¹.](#)
- **Anticancer Effects:**
 - Studies indicate that compounds in pomegranate exhibit anticancer properties.
 - Animal research shows that pomegranate can slow tumor growth in early-stage liver cancer.
 - [Older research suggests potential benefits for prostate cancer as well¹.](#)
- **Heart Health Benefits:**
 - Pomegranates may support heart health by:
 - Reducing blood pressure
 - Improving cholesterol levels
 - Enhancing blood flow
 - Protecting against atherosclerosis (hardening of the arteries)
 - [Regular consumption of pomegranate juice has been](#)

associated with these heart-protective effects¹.

- Urinary Health Support, Antimicrobial Properties, and Improved Exercise Endurance are additional benefits associated with pomegranates¹.

Take Aways:

- Consuming pomegranates has enough potential benefits to warrant being part of your diet.
- Source organic juice with out added sugars
- Eat them regularly in your salads to making a sorbet
- Need 25 new recipe ideas on what to do with pomegranates ?[see the food and wine article](#)

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1. Centers for Disease Control and Prevention (CDC). [“Paraquat-Related Illnesses and Injuries.”](#)¹
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Do you drink decaffeinated coffee ?

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Decaf Coffee and Methylene Chloride: A Fight for Consumer Safety

The future of decaf coffee is continuing to brew a controversy. The National Coffee Association's (NCA) National Coffee Data Trends statistic, inferred that approximately 0.74 cups (24% of 3.1 cups) per day per capita in the United States are decaffeinated coffee.

Consumer health advocates are urging the FDA to ban methylene chloride, a chemical used in decaffeination. While trace amounts remain after processing, they argue a 1958 law mandates a ban because studies show it causes cancer in animals.

The Chemical in Question: Methylene Chloride and its health effects

Methylene chloride, is used by major coffee companies for its solvent properties. It binds to caffeine in beans, allowing its removal. However, the fight hinges on its potential health risks.

- **Scientific Evidence:** Rodent studies have linked methylene chloride to cancer. The Delaney Clause of the FDA's food additive laws prohibits any additive proven to cause cancer in humans or animals.
- **Level of Exposure:** Advocates argue the Delaney Clause applies regardless of the trace amounts remaining after processing. They believe any detectable level is unsafe.

Methylene chloride, also known as dichloromethane (DCM), was banned in the United States for certain uses due to health concerns. However, there were no reported deaths directly linked to the use of methylene chloride in decaffeinated coffee.

Methylene chloride was widely used as a paint stripper and degreaser. In 1987, the Environmental Protection Agency (EPA) issued a ban on methylene chloride for use in consumer and most commercial paint stripping products due to its potential health risks. The EPA's risk assessment at the time concluded that methylene chloride posed an unreasonable risk to human health, particularly for workers and consumers exposed during paint stripping.

The primary health concerns associated with methylene chloride exposure include:

1. **Carcinogenicity:** Rodent studies have linked methylene chloride to cancer.
2. **Neurotoxicity:** Methylene chloride can cause dizziness,

headaches, and even loss of consciousness due to its ability to deplete oxygen in the blood.

3. Reproductive and developmental effects: Methylene chloride may affect the reproductive system and cause developmental issues in fetuses.

The ban on methylene chloride for paint stripping was upheld by the U.S. Court of Appeals for the District of Columbia Circuit in 1991. However, the chemical is still used in various industrial applications, including the decaffeination of coffee and tea.

In 2018, the EPA proposed a ban on methylene chloride for use in consumer and most commercial paint and coating removal to address ongoing health concerns. The [ban was finalized in 2019](#), but the use of methylene chloride in decaffeinated coffee and tea remains unchanged.

Industry Frustration and the Limits of the Delaney Clause:

- **Overly Precautionary?** The food industry and some FDA officials find the Delaney Clause overly cautious. Animal studies may not perfectly reflect human exposure levels in decaf coffee.
- **Legal Wrangling:** This “Delaney Clause strategy” has been successful before, forcing bans on certain food additives.

Some commercial sources still using methylene chloride for decaffeination include:

1. ABC Decaffeinated Coffee
2. Eight O’Clock Decaffeinated Coffee (some blends)
3. Folgers Decaffeinated Coffee (some blends)
4. Maxwell House Decaffeinated Coffee (some blends)
5. Nescafé Decaffeinated Coffee (some blends)

Consumer Choice: C02 & Water-Based Decaffeination

While the debate continues, consumers can make informed choices:

- There are two main non-chemical methods of decaffeination for coffee: the Swiss Water Process and the Carbon Dioxide (C02) Process.

1. Swiss Water Process: The Swiss Water Process is a chemical-free method of decaffeinating coffee. This method uses water, temperature, and time to create a coffee bean solution, called Green Coffee Extract (GCE). GCE is then passed through a carbon filter to remove caffeine. The decaffeinated green coffee beans are then reintroduced to the GCE, allowing them to absorb the soluble flavors from the solution while leaving caffeine behind.

Advantages:

- Chemical-free
- Maintains coffee's original flavor
- Environmentally friendly

Disadvantages:

- More expensive than chemical methods
- Longer processing time

2. Carbon Dioxide (C02) Process: The C02 Process uses pressurized C02 as a solvent to extract caffeine from green coffee beans. At high pressure, C02 behaves like a liquid, allowing it to penetrate the coffee cells and dissolve caffeine. The C02-caffeine mixture is then depressurized, causing the C02 to evaporate and leave the caffeine behind.

Advantages:

- Chemical-free
- Highly selective for caffeine
- Environmentally friendly

Disadvantages:

- More expensive than chemical methods
- Limited commercial availability
- Specialized equipment required

This fight highlights the ongoing debate about food safety regulations. While the science on methylene chloride's effects in decaf coffee is complex, consumers have the right to be informed and have access to safer alternatives.

The Takeaway:

- Check the labels on the decaffeinated coffee brands and go for water or CO2 based processing
- Is your coffee organic certified ?
- Don't settle for any unlabeled product or companies that fail to be transparent about the processing.

Still have your coffee lid on your cup ?

written by Alan Kadish | July 13, 2024



Super dose of BPA while sipping your coffee with a plastic lid !

Have you heard about the recent controversy surrounding bisphenol A (BPA) and how much of it is considered safe ? It's a big deal, especially for those concerned about the effects of this chemical on our health.

BPA is a widely used chemical in the production of plastics, and it's found in many everyday items, including plastic water bottles, food containers, and even the lining of metal cans used for beverages like soda.

Researchers have found that exposure to BPA, even at low levels, can potentially affect brain function, contribute to conditions like ADHD and autism, increase the risk of diabetes, obesity, and heart diseases, and even impact fertility and reproductive health.

In December 2021, the [European Food Safety Authority \(EFSA\)](#) released a report suggesting that the safe daily intake level for BPA should be much lower – a staggering **20,000** times lower than the currently recommended exposure levels in the European Union (EU). That's a significant difference!

In a [TEDx talk](#) highlighting the presence of BPA in disposable coffee cup lids. Zandra Palma, MD, has documented the overwhelming levels we ingest.

While the future of BPA regulation or elimination remains uncertain, it's crucial that we educate ourselves, our families, healthcare providers, and policymakers about the potential risks associated with BPA exposure. After all, our health and the health of future generations are at stake.

Family of Chemicals:

Remember this is a family of chemicals, including BPF, BPB, BPS, BPAF, BHPF, BADGE, and BPZ. So much more work needs to be done to remove these health concerning chemicals from our daily exposure

The constant push and pull between risk and industry considerations should be carefully weighed in favor of our health.

Take Aways:

Still drinking with the plastic lid on your cup, don't !

Consuming Coke in cans.... did you know they [use BPA](#) ?

Check labels as the FDA has mandated BPA reporting.

Use safer products including glass, stainless and silicon, etc.

Read more: [Guide-natural-breast-pumps/](#)

Ready to do something about the plastic issue ? See these organizations.

Plastic Pollution Coalition (PPC): This is a global alliance of organizations, businesses, and activists working toward a world free of plastic pollution. PPC focuses on promoting solutions through education, policy, and cleanups.

5 Gyres Institute: A non-profit organization dedicated to researching and raising awareness about plastic pollution in the world's oceans and implementing solutions to address the issue.

Surfrider Foundation: A grassroots organization that works to protect and preserve the world's oceans, waves, and beaches, with a strong focus on reducing plastic pollution.

Upstream: A nonprofit organization that works to create a waste-free world by addressing the root causes of plastic pollution and promoting reuse and refill systems.

Greenpeace USA: The U.S. branch of the global environmental organization Greenpeace has campaigns and initiatives to address plastic pollution, including advocating for corporate responsibility and policy changes.

Sierra Club: One of the oldest and largest environmental organizations in the U.S., the Sierra Club has programs and campaigns aimed at reducing plastic waste and promoting sustainable alternatives.

Story of Stuff Project: An organization that creates educational resources and campaigns to expose the environmental and social impacts of overconsumption, including the proliferation of plastic waste.

Break Free From Plastic: A global movement of organizations and individuals working to create a world free of plastic pollution through policy changes, corporate accountability, and grassroots action.

BPA: A True Hot Mess

So, if you missed the recent debacle between the European Food Safety Authority (EFSA) and the rest of the world around how much BPA is safe, you're not alone. Only those with skin in the game were paying attention.

That would include endocrine disruption researchers, healthcare providers who are concerned about exposure in their patients and of course, the plastics industry who depend on BPA for all the plastic we use and love. It is after all, a "high-volume production chemical"- global production is

predicted at [7.96 million tons](#) in 2024. And climbing.

Levels of BPA in urine or blood have been found to be closely related to cognition and memory changes in animals, ADHD and autism in humans as well as predicting risk for diabetes, obesity, and cardiovascular disease (acute MI and death). Levels are also closely related to declining sperm count and quality in adult men, and decreased libido and changes to the hypothalamic-pituitary-gonadal axis in both sexes.

Oh, and let's not forget that the new safe levels EFSA identified are based on the immunotoxic effects of BPA at very, very low levels of exposure. Do we have your attention now?

And if you really want a mind-blowing factoid check out one of our doctors, Zandra Palma MD's [TEDX talk](#) on how much BPA is in disposable coffee cup lids. People used to laugh at our colleague, the famous immunologist Dr. Aristo Vojdani when he walked around at coffee breaks during medical conferences taking the disposable plastic lids off the paper coffee cups doctors had in their hands. Nobody is laughing now.

So, in December 2021, EFSA published their report finding that the level of BPA that is actually safe for humans- known as a Tolerable Daily Intake or TDI- is much lower than the EU current recommended exposure level. In fact **20,000 times lower**. And definitely lower than any global regulatory level including in the U.S. This new safe level is **5,000 times lower** than the average daily intake here in the land of regulatory capture. The European Commission (EC) in August 2023 stated that it was planning to propose adopting this revision of the TDI for BPA, including a ban on its use in food packaging materials. Whether that happens will be determined in the near future, hopefully the EU will take the comments we submitted this month seriously.

The comments were detailed in a paper we coauthored that has

been accepted for publication in the prestigious Environmental Health Perspectives journal and will hopefully push the envelope on BPA and it's [alphabet-soup family](#) (BPF, BPB, BPS, BPAF, BHPF, BADGE, and of course- BPZ). This paper is coauthored by some very big names in the field: Frederick VomSaal- the pre-eminent BPA researcher and environmental health author, Linda Birnbaum- former Director of the NIEHS (National Institute of Environmental Health Sciences), and a long list of others whose research on BPA's effects has appeared in peer-reviewed publications for the last 20 years.

You can read the Commentary [here](#) as it was submitted to the European Commission this month. It's title: "The conflict between regulatory agencies over the 20,000-fold lowering of the tolerable daily intake (TDI) for bisphenol A (BPA) by the European Food Safety Authority (EFSA)". The title speaks for itself and lays out the reasons we've all been exposed to this powerful estrogen-mimetic for the past 90 years.

Will humans survive the [Plasticene Epoch](#)? That depends on us- what we teach our colleagues, patients, families, legislators, and friends about BPA. And yes, there is BPA in the linings of Coca-Cola cans, as there is in all other aluminum beverage cans. Coke has the usual webpage on the safety of BPA, better to admit and downplay any concerns, apparently.

Want to learn more? We have a monthly podcast on this and everything environmental toxicant-related at the [EMEI Review](#). We also have a Wed. night class for healthcare providers we call [Consult Detox Docs](#), where we answer any and all questions about cases, lab interpretation or general issues related to toxicants and health. And for those who are ready to learn it all- a 12 month intensive [training in environmental medicine](#).

Besides, don't you want to become a doc like Zandra Palma?

Carcinogens with acne treatment, now what !

written by Alan Kadish | July 13, 2024



What if your acne treatment converts to benzene, a carcinogen ?

Turns out that the benzoyl peroxide formulations can break down into benzene !

Typically when we find benzene in a product it's because of contamination however, in the case of products that contain benzoyl peroxide it's due to the breakdown conversion of the chemistry. If you've been reading our blogs you know that this is not the first time consumers have been exposed to benzene. Remember the [hand sanitizer recalls](#) ?

A list of the products tested is at the bottom of this blog.

Who blew the whistle on this commonly used over-the-counter product, a Connecticut-based laboratory Valisure LLC. They filed a [citizen petition](#) with the FDA asking for a recall of

all the products containing the compound. It's specifically more of an issue when the products are exposed to heat even as low as 98.6 degrees Fahrenheit. You might recall this is the same laboratory that in 2019 alerted the FDA that the prescription medication ranitidine (Zantac tm) is fundamentally unstable and degrades to form high levels of the carcinogen NDMA. It was subsequently pulled from the [market in April of 2020](#).

You may be asking how will my product ever reach even this heat ? Think in terms of the 3 years and the expiration times on these products and then consider transportation, handling, stocking, and of course what happens when it's in the sun or you have a hot environment in your bathroom when it's in the medicine cabinet. All or even one of these exposures increases in temperature will result in the production of benzene.

Toxicity:

The World Health Organization ("WHO") and the International Agency for Research on Cancer ("IARC") have classified benzene as a Group 1 compound which means they define it as "carcinogenic to humans."

One consideration is that the FDA already has a law restricting benzene from any use in the manufacture of drug substances, excipients, and drug products because of their unacceptable toxicity. The chemical is classified as a class 1 solvent by the FDA. This is the highest level of risk-based classes." Class 1 solvents are known to cause unacceptable toxicities".

Let's get clear about how long this has been known. In [1936 the first literature](#) was presented discussing the degregation of benzoyl peroxide products to benzene. If you're wondering how did this happen you might find the [Reuter's article](#) interesting. It's about the collusion

between industry and the agencies that should be regulating these products.

The laboratory tested 175 acne treatment products. You should be aware that many acne products use other compounds, commonly salicylic acid or adapalene which are completely different. These were not the problem products. **Of the 99 products tested that contain benzyl peroxide, ninety-four contained benzene.**

At the time of this post, the FDA is still evaluating action so it's on the consumer's shoulders to address and remove this carcinogen from your and your families use.

Take aways:

- If you're using acne medication check the label for benzyl peroxide, if found discard.
- Acne is caused by multiple factors: hormone changes, zinc levels, dietary intake and bacterial milue to name a few of the areas to assess.
- See your health care provider and think whole body when assessing your acne
- Feel you've been injured by the products, [multiple lawsuits](#) are pending.

The list of those in the suit include:

- Alchemee, LLC and Taro Pharmaceutical USA, Inc. (Proactiv BPO products)
- CVS Pharmacy Inc. and CVS Health Corp. (CVS Health Acne Treatment Cream and CVS Health Acne Control Cleanser)
- RB Health, LLC (Clearasil Rapid Rescue Spot Treatment Cream and Clearasil Stubborn Acne Control 5 in 1 Spot Treatment Cream)

- Target Corp. (Up & Up BPO products)
- Genomma Lab USA, Inc. (Asepxia Acne Spot Treatment Cream)
- Walgreens Boots Alliance, Inc. (Daily Creamy Benzoyl Peroxide Acne Face Wash and Maximum Strength Acne Foaming Wash)

And you thought your cereal was safe ?

written by Alan Kadish | July 13, 2024



Warning: Another pesticide is found in our bodies!

Are Organic Foods the Only Safe Option?

Bad news: A recent study, of oat products and an allowed p

A pilot study of chlormequat in food and urine from adults in the United States from 2017 to 2023 published in the [Journal](#)

[of Exposure Science & Environmental Epidemiology](#) Feb 15, 2024 found a concerning pesticide called chlormequat in **80% of 96 samples of urine tested**. When newer samples during the 2023 period of time, up to 90% had this chemical detectable in their urine. The group's urine was tested from people in Florida and Missouri. This chemical is linked to **reproductive problems** in animals, and we don't know yet if it harms humans too.

What's the problem?

- This pesticide is **not allowed** on US-grown food crops, but it **can show up** on imported oats and grains. Think of popular brands like Quaker Oats and Cheerios !
- The researchers checked oat products (25 conventional and 8 organic) and wheat-based (9 conventional) food samples purchased at U.S. grocery stores in the Washington, DC metro area. The results: Worryingly, **[92% of non-organic oat products](#)** tested had chlormequat residues.
- The amount of chlormequat found in people **increased** between 2017 and 2023, suggesting exposure might be rising.

The scary part:

- Animal studies link chlormequat to **reduced fertility, harmed reproductive systems, and altered fetal growth**. These are serious concerns for human health and need to be evaluated before more exposures are allowed for US crops ! In 2020 the EPA raised the amount of Chlormequat allowable in imported crops.
- **Increased amounts allowed on Oats:** Prior to 2020, in 2018, the **Trump EPA** granted the first-ever approval for some amount of CCC on imported oats. In May 2020, the EPA increased the tolerance for CCC residues in **imported oat grain** from **10 ppm to 40 ppm**. There are no authorized use of CCC on **domestically grown** oats or other food

crops.

So, what can we do?

- **Organic options:** This study suggests opting for **certified organic oats and grains** might significantly reduce your exposure to chlormequat. While organic doesn't guarantee complete absence, it offers a stronger layer of protection.
- **Stay informed:** Follow trusted sources for updates on pesticide regulations and health risks.
- **Demand change:** Support organizations advocating for stricter pesticide regulations and safer food alternatives.

Remember: This is just one study, and more research is needed to fully understand the risks of chlormequat. However, it's a good reminder to be mindful of what we eat and choose options that prioritize our health and well-being.

Important note: It's important to be aware that relying solely on organic foods to completely avoid pesticide exposure is unrealistic and unnecessary. Many conventional foods have very low levels of pesticides that are deemed safe by regulatory agencies. While choosing organic can be a good option for some people, it's best to maintain a balanced and varied diet based on your individual needs and preferences.

Take Aways:

- Source oats and oat products from domestic sources
 - Purchase Organic Certified exclusively when purchasing oats.
-

And you thought your prenatal multi was good enough....

written by Alan Kadish | July 13, 2024



Prenatal vitamins failed to provide even the minimum necessary amounts of nutrients in 6 critical categories during pregnancy.

You read this correctly from a study in a clinical nutrition journal. But keep on reading as this is very misleading when you get the rest of the story.

There is a multitude of prenatal vitamin brands being sold daily in the US. The problem is that to get adequate amounts of essential vitamins most, not all, lack the contents to be effective for your pregnancy needs.

Let's perhaps back up a bit and talk about pregnancy and nutritional needs. Remember you're building a new body from scratch and it takes a substantial lift to get all the building blocks assembled. There are 6 key ingredients that are commonly lacking from our diets when you consider a pregnancy: vitamins A and D, folate, calcium, iron and omega-3 fatty acids.

Diet:

The researchers collected dietary data from over 2,400 pregnant women across the US and found that most were at risk of insufficient intake of six key nutrients: vitamins A and D, folate, calcium, iron, and omega-3 fatty acids. As a note, this is common even with so-called good diets.

To determine the nutritional intake of pregnant women in the US and evaluate the underlying unmet needs the researchers evaluated population-based survey data. The data from the [NIH Environmental influences on Child Health Outcomes \(ECHO\) program](#). which is an organization that has research programs supported by the National Institutes of Health (NIH) is focused on understanding the effects of a broad range of early environmental influences on child health and development, including nutrition. This group is pulling data from 44 states, 180+ institutions, and 1200 researchers. A wide swath of the US with a large number of participants.

Industry Stuff:

In the supplement industry, there are companies that try to put everything but the kitchen sink in a pill or capsule to make the label look impressive. The problem with this approach is the limits on the size of the actual pill/capsule and the clear understanding that a bit of a mineral or vitamin is probably not adequate. We call this doing the fairy dust number on the consumer.

If you were to look at calcium it's a relatively bulky product that takes up a lot of space. On the opposite side of the coin, you're going to want a soft gel for the omega 3 with different considerations on the packaging. And let's not even start down the road of the different forms of folate. Yes, it matters... and we haven't even started to consider that this study doesn't address the issue of absorption. If you take a pill or capsule it matters when and with what other foods are present and more to determine if you're getting the full

benefits.

The other overwhelming manufacturing consideration is the size and format of your supplement. You can only fit so much in a swallowable pill or capsule. the alternative is to have someone take an increased number, up to 6 per day as an example. With the nutrient load that's necessary for most pregnancies, it's just not possible to use a single pill, period !

Where most supplements are lacking:

A recent study published in the American Journal of Clinical Nutrition titled "[Selecting a dietary supplement with appropriate dosing for 6 key nutrients in pregnancy](#)" revealed that few dietary supplements meet the nutritional needs of pregnant women. They also searched the Dietary Supplement Label Database and found that none of the prenatal products met their criteria to enable 90% of pregnant women to obtain enough of the six nutrients while ensuring at least 90% of them didn't get too much of any one nutrient. Only one product in the entire NIH database met their specifications, but it was both inconvenient and expensive. The study emphasizes the importance of getting adequate nutrients through a healthy diet during pregnancy, and using dietary supplements when needed.

Researchers searched for dietary supplements with enough nutrients for pregnant women without exceeding safe limits. Out of over 21,000 supplements, only one met their criteria, but it was expensive and required taking seven pills daily. None of the 421 labeled as prenatal met the requirements. BUT.... I did find one of the companies that met the criteria without iron. As a note, the type of iron and its interference with other [vitamin absorption](#) suggest it should always be used as a separate input at a different time or meal vs your prenatal vitamin.

Their false conclusion:

The study's conclusion: "The large U.S. dietary supplement market is not meeting the nutrient needs of pregnant women," . When you look at the over-the-counter and big-store brands they compared the conclusion is on the mark. With the diet evaluation once again so true and sad that in the US our diets remain a real problem of quality and adequacy.

The fly in the ointment for this study...Expand your view and look at quality manufacturers who understand that multiple capsules or tablets are needed and the prenatal vitamin selection that would meet your need is very much present. Many manufacturers have had multiple capsule/tablet combinations for years knowing that pregnancy demands a robust intake.

Take Aways :

- Over-the-counter and supermarket brands are not adequate.
 - A big-name brand, even on television, or one having an advertising budget including free samples at your healthcare provider, is no substitute for quality.
 - It will take more than one pill to provide an adequate level of nutrients needed for your pregnancy.
 - Quality manufacturers are available, but you need to know the differences or talk to someone with this knowledge
 - Have you had real nutritional evaluation or testing to know where you need to fortify your diet ?
 - Eating for two takes some planning, have you seen a qualified healthcare practitioner who's been trained in optimal nutrition during pregnancy ?
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Less toxins (PFAS) in our water... more needs to be done !

written by Alan Kadish | July 13, 2024



Finally, the US Environmental Protection Agency (EPA) has announced drinking water standards for six PFAS (forever) chemicals.

The list includes PFOA, PFOS, PFNA, PFHxS, HFPO-DA (GenX), and PFBS.

Why is this a big deal, this is the first time that drinking water standards have been proposed for a new chemical under the Safe Drinking Water Act **since 1996**. The proposed new drinking water standards follow last year's announcement of [lifetime health advisories for four PFAS](#). Chemical companies sell PFAS for application to products such as paper and textiles as stain-resistant, water-repellent, and grease-

proofing treatments.

Health Issues:

The family of PFAS's have been linked to serious health problems such as cancer, immune system suppression, increased cholesterol levels, pregnancy-induced hypertension, liver damage, reduced fertility, and increased risk of thyroid disease. To keep perspective, we now know that these chemicals can be toxic at **extremely** low levels of exposure. Much of the movement to reduce or even eliminate this class of chemicals has come from the outcry of consumers. Retailers have taken consumer sentiment as a strong signal to phase out all PFAS to prevent further contamination of our communities' drinking water and poisoning their clients.

Where can I find PFAS's:

PFAS, or per- and polyfluoroalkyl substances, are manufactured and sold by chemical companies to be used as stain-resistant, water-repellent, and grease-proofing treatments for products such as paper and textiles in our take-out containers. They are also used in industrial processes and are released into waterways, leading to their widespread presence and because of their longevity a real issue to clean up both the soil and water. Due to their persistence and resistance to breaking down in the environment, they are commonly referred to as "forever" chemicals.

A 2022 study by an organization known as the [Toxic-Free Future](#), have found PFAS in a majority of products labeled as stain- and water-resistant, with 72% of tested products, including those from REI and Amazon. Another study conducted in 2021, led by scientists from Toxic-Free Future, the University of Washington, and Indiana University, discovered [PFAS in all breast milk samples](#) tested and found that the newer PFAS members can also accumulate in people. For those

who are concerned with their breast milk see the [Agency for Toxic Substances and Disease Registry's](#) website for additional information.

Remember your take-home containers from the restaurants ? The compostable fast-food containers were designed to be more environmentally friendly than single-use plastic ones. However, a new study has demonstrated that they can release toxic per- and polyfluoroalkyl substances (PFAS) into the air. This study was with retailers in Toronto and published in [Environmental Science. Technology Letter.](#) 2023. The results indicate that the PFA's used to make paper-based food packaging grease resistant, break down over time into volatile fluorotelomer alcohols and fluorotelomer methacrylates contaminating us and our environment.

This same organization's investigative report identified a PFAS manufacturing facility as a significant source of both PFAS pollution and ozone-depleting chemicals that contribute to health issues and climate change. leading to continued health risks and a burden on us as taxpayers and ratepayers to clean up the contaminated drinking water and soil.

Some state governments are taking steps to regulate PFAS's. New enforceable standards also known as Maximum Contaminant Levels (MCLs) have been published for some of the PFAS's found in drinking water. Ten states are on board with standards including ME, MA, MI, NH, NJ, NY, PA, RI, VT, and WI with Delaware and Virginia in the process of establishing their own water standards.

The real key is to phase out PFAS in products and promote the use of safer alternatives. Maine and Washington have granted state agencies the authority to ban PFAS in various products, while other states have enacted restrictions on PFAS in textiles, carpets, rugs, food packaging, oil and gas products, personal care products, and firefighting foam. More states will be looking to restrict PFAS's shortly.

Good News

Some retailers have heard enough from their clients are adopting safer chemical policies to remove PFAS and along with other dangerous chemicals. Keep in mind this includes both the actual product and the packaging. Among those who use PFAS's in their products, outdoor and textile brands have been announcing policies to reduce and eliminate these toxins. Recently, REI joined the ranks of major retailers that have banned PFAS in all textiles and cookware they sell. This action mind you followed a nationwide campaign to make them a more responsible corporate citizen.

Some manufacturers such as Patagonia have also pledged to eliminate all PFAS from their entire product line, however from now until 2024. Speaking of outdoor brands, Columbia has committed to phasing out PFAS by the end of 2024. In 2021, Polartec announced that it would eliminate PFAS in its DWR treatments across its line of performance fabrics. Lowe's and The Home Depot are no longer selling indoor residential carpets or rugs containing PFAS, and Lowe's has also committed to discontinuing the sale of fabric protection sprays containing PFAS. Major grocery and fast-food chains like McDonald's, Burger King, Starbucks, and Whole Foods Market have implemented policies that limit the use of PFAS in food packaging. As of now, more than 30 distinct retail chains, with over 150,000 stores and a combined sales revenue of over \$650 billion, have pledged to eliminate or reduce PFAS in food packaging, textiles, and other products.

Take Aways:

If it says waterproof, stain resistant or water repellent be suspect and ask for details, before purchasing

Check your carpeting and outdoor gear (think Scotchguard by 3M)

Want to know what's in your water ? [TEST NOW](#)

Have you purchased your clothing from some of the manufacturers mentioned in our article, perhaps it's time for new gear ?

Don't apply waterproofing agents to your outdoor camping gear or any indoor products unless they explicitly indicate alternative safe agents. (Nikwax, as an example)

Still getting fast food with the old style of grease-free wrappers, think burgers, pizza and fries

Think about taking a glass or silicon container for your left overs from the restaurant, vs using their products.

Use the [Retailer Report Card](#), to check on your retailer's index of their toxins and policies