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Why Are PFAS Still Used in Drugs When Alternatives Exist?

Analysis by Dr. Joseph Mercola | September 21, 2026

STORY AT-A-GLANCE

- Researchers identified 111 PFAS-containing active ingredients used in human medicines and found that 87% already have a PFAS-free alternative available, with alternatives in development for nearly all of the rest, challenging the idea that these “forever chemicals” are required in modern pharmaceuticals
- Fluorine is usually added to medicines to improve stability or how they move through your body, not because it provides the medicine's therapeutic effect, meaning many drugs could deliver the same benefits without PFAS
- More than 80% of the PFAS-containing medicines examined break down into trifluoroacetic acid (TFA), a highly persistent environmental contaminant that’s extremely difficult to remove once it reaches rivers, lakes and drinking water
- Your PFAS exposure comes from many sources, including medications, nonstick cookware, food packaging, stain-resistant products, and drinking water, so reducing unnecessary exposure across several areas of your life lowers your cumulative lifetime burden
- If you need prescription medication, asking whether an equally effective PFAS-free alternative is available is one practical way to reduce exposure while supporting the development and use of medicines designed with fewer persistent chemicals

When you hear "PFAS," you probably think of nonstick cookware, waterproof jackets, or contaminated drinking water. You probably don't think of the prescription sitting in your medicine cabinet. Yet fluorinated compounds classified as per- and polyfluoroalkyl

substances (PFAS) are built into a surprisingly wide range of approved pharmaceuticals, often not because they're essential to how those medicines treat disease, but because they make the drug easier to formulate.

If fluorine serves the manufacturer's design goals more than the patient's therapeutic needs, then every PFAS-containing medicine that passes through your body and into the water supply deserves a harder look, particularly now that researchers have mapped out whether effective alternatives already exist. An analysis published in Sustainable Chemistry and Pharmacy took on exactly that question, and the answer should change how we think about drug design going forward.[1]

PFAS-Free Drug Alternatives Already Exist Across Nearly Every Medical Category

For the study, researchers investigated whether PFAS-containing medicines are truly necessary or whether practical alternatives already exist.[2] They reviewed approved active pharmaceutical ingredients (APIs), the part of a medicine that produces its therapeutic effect, and identified 111 PFAS-containing medicines used in humans and 28 used in veterinary medicine.[3]

The researchers found that 87% of the 111 human PFAS-containing medicines already have a non-PFAS alternative available, with alternatives in development for nearly all of the remainder --- directly challenging the long-held belief that fluorinated medicines are medically indispensable.

According to the study's lead researcher Dr. Michael Müller of the University of Freiburg, "The fact that PFAS-free alternatives already exist for almost all indications is a clear indication that, from a pharmacological point of view, per- or polyfluorination is not strictly necessary."

- **Fluorine usually improves drug performance rather than treating disease —** The analysis found that fluorine is rarely responsible for a medicine's therapeutic effect. Instead, drug developers often add fluorine because it helps medicines remain

stable, resist breakdown, or move through the body differently. Those properties make medicines easier to design and formulate, but they're separate from the drug's intended medical action.

That distinction is important because it shows many medicines can achieve the same therapeutic result without relying on PFAS chemistry, creating opportunities to reduce persistent environmental contamination while maintaining effective treatment.

- **Most PFAS-containing medicines eventually become another persistent environmental pollutant —** Researchers found that 84% of the PFAS-containing medicines they examined have the ability to degrade into trifluoroacetic acid (TFA), a highly persistent PFAS compound that remains in the environment instead of breaking down naturally.

  The study explains that once medicines are excreted, they enter wastewater systems and eventually reach rivers, lakes and groundwater. The researchers also note that removing TFA from drinking water is extremely difficult. For that reason, the authors argue that preventing TFA formation at the source is far more effective than trying to remove it later.

- **PFAS-containing medicines are used across almost every area of health care —** The researchers mapped PFAS-containing medicines using a classification system that groups medicines according to the conditions they treat. They found these medicines are spread across numerous therapeutic categories rather than concentrated in one specialty.

  That means replacing PFAS-containing medicines isn't a challenge limited to one disease or one group of patients. Instead, it requires evaluating each medicine individually and comparing it with available non-PFAS alternatives that provide the same therapeutic benefit rather than assuming every fluorinated medicine is required.

- **The researchers argued that environmental persistence deserves greater attention during drug development —** Their concern focuses on what happens after these medicines leave the body and enter the environment.

  Researchers argue that environmental persistence deserves consideration alongside conventional measures such as safety, quality, and effectiveness during drug development and regulatory decision-making, particularly when equally effective non-PFAS alternatives already exist.

- **The findings point toward a future where effective medicines no longer rely on PFAS —** Because non-PFAS alternatives already exist for nearly every PFAS-containing medicine identified in the analysis, the researchers conclude that reducing the pharmaceutical industry's reliance on these persistent chemicals is achievable.

  Rather than forcing a choice between effective treatment and environmental protection, the findings suggest both goals can move forward together as future medicines are designed with persistence in mind from the beginning.

Reduce Your Overall PFAS Exposure One Choice at a Time

PFAS deserve attention because your exposure adds up over a lifetime. These "forever chemicals" break down extremely slowly, allowing them to accumulate in drinking water, soil, food and, ultimately, your body. Research has linked higher PFAS exposure to reduced immune response,[4] liver damage, **thyroid disorders**, and reproductive and developmental problems,[5] and separate research has associated PFAS-contaminated drinking water with an increased incidence of certain cancers.[6]

Since you encounter PFAS from many different sources every day, reducing unnecessary exposure wherever practical, including when equally effective PFAS-free medicines are available, is one way to lower your cumulative burden over time.

The research suggests that reducing PFAS exposure isn't about making one dramatic change. It's about lowering your total lifetime exposure wherever practical. Medicines are only one source. Drinking water, food packaging, stain-resistant fabrics, and many everyday consumer products also contribute. Every unnecessary source you eliminate chips away at your cumulative PFAS burden, and over a lifetime, those reductions compound.

1. **Only take prescription medicines that you truly need —** While some medicines are necessary, many people remain on drugs long after the original reason for taking them has disappeared. If you take one or more long-term medications, regularly evaluate whether each one is still needed or whether another approach addresses the underlying problem instead of simply managing symptoms.

   Bring a complete list of every medication you currently take to your next appointment and ask your doctor to walk through each one. For every prescription, the question is straightforward: "Is this still necessary, or has my situation changed enough that we can reassess?"

   That single conversation, repeated at each annual visit, keeps your medication list current and prevents unnecessary long-term exposure to any drug, PFAS-containing or otherwise. Reducing unnecessary prescriptions lowers your exposure to PFAS-containing medicines while also reducing the release of these persistent chemicals into the environment through wastewater.

2. **Choose PFAS-free medicines when an equivalent option exists —** The researchers found that 87% of PFAS-containing active pharmaceutical ingredients identified for human medicine already have a non-PFAS alternative available, with alternatives in development for nearly all of the rest. If two medicines offer comparable therapeutic benefits, ask whether a PFAS-free option is available. That simple conversation supports both your long-term exposure goals and cleaner pharmaceutical design.

A simple way to start that conversation: "I'm trying to reduce my exposure to persistent fluorinated chemicals. Does this medication contain fluorine, and if so, is there an equally effective alternative that doesn't?" Many doctors won't have encountered the request before, but framing it as a preference keeps the conversation productive and gives your provider room to weigh the clinical tradeoffs with you.

One quick way to check whether a medication you already take may contain PFAS: look at the generic name on the label. If it includes "fluor-" or "flu-," as in fluoxetine, fluticasone, or ciprofloxacin, the drug contains fluorine. That doesn't automatically mean you should switch, but it tells you which prescriptions are worth discussing with your doctor at your next visit.

3. **Reduce PFAS from other everyday sources —** Because PFAS exposure is cumulative, medicines are only part of the picture. Replace nonstick cookware with stainless steel, limit food packaged in grease-resistant wrappers or containers, avoid stain-resistant carpets and furniture treatments when possible, and choose personal care products that don't contain fluorinated ingredients. Lowering exposure across multiple areas often has a much greater effect than focusing on one source alone.

4. **Filter your drinking water —** PFAS have been detected in drinking water supplies throughout many regions because they persist in the environment for decades. A high-quality filtration system certified to remove PFAS reduces one of the most consistent sources of everyday exposure. Cleaner drinking water lowers your ongoing exposure every single day.

5. **Think about cumulative exposure instead of isolated products —** Think of PFAS exposure the way you'd think about secondhand smoke. One exposure isn't the entire story. The total amount you accumulate over years matters most. Every informed decision, whether it involves a prescription, your cookware, your drinking water, or the products you bring into your home, helps lower that cumulative burden and gives you greater control over your long-term health.

This article is for informational purposes only and does not constitute medical advice. Consult a qualified healthcare provider before making changes to your health regimen.

FAQs About PFAS in Medications

Q: Why are PFAS used in some prescription medicines?

A: PFAS are often added during drug development because they help certain medicines remain stable, resist breakdown, or move through the body more efficiently. According to the research reviewed in this article, fluorine usually is not responsible for the medicine's therapeutic effect. Instead, it mainly changes how the drug behaves, which means many medicines can achieve the same medical result without relying on PFAS.

Q: Should I stop taking a medicine if it contains PFAS?

A: No. The research doesn't suggest that you should stop taking prescribed medications on your own. Instead, the findings encourage you to become an informed consumer by asking whether an equally effective PFAS-free alternative is available, particularly if you're starting a new medication or reviewing long-term prescriptions.

Q: Why are PFAS called "forever chemicals"?

A: PFAS earned that nickname because they break down extremely slowly in the environment. After they're released into water, soil or other parts of the environment, they remain there for many years. Some PFAS-containing medicines also degrade into TFA, another highly persistent compound that's difficult to remove from water once it's released.

Q: Besides medications, where else are PFAS commonly found?

A: Prescription drugs are only one source of exposure. PFAS are also found in nonstick cookware, grease-resistant food packaging, stain-resistant carpets and furniture, waterproof clothing, some cosmetics, and contaminated drinking water. Because exposure accumulates from multiple sources over time, reducing PFAS wherever practical lowers your overall lifetime burden.

Q: What are the most effective ways to reduce PFAS exposure?

A: Focus on the sources you can control. Review long-term medications to determine whether they're still necessary, choose PFAS-free medicines when equivalent options exist, filter drinking water, replace nonstick cookware with safer alternatives such as stainless steel, and avoid consumer products marketed as stain-resistant or water-repellent whenever possible.

Small changes across several areas of your life often reduce total PFAS exposure more effectively than concentrating on just one source.

Sources and References

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