PFAS-REACH
PFAS Research, Education, and Action for Community Health

# PFAS blood testing: What you need to know

For people in PFAS-impacted communities and occupations

## Purpose

This document is intended as a guide for individuals who are seeking PFAS blood testing. Residents of communities with local sources of contamination and people who may have been exposed to high levels of PFAS at their workplace may seek a PFAS blood test to learn more about their exposure. This document provides information about what you can and can't learn from a PFAS blood test, how to find a lab to conduct the testing, questions to ask a lab about their services, and tools to help you with interpretation and action.

## What can I learn from a PFAS blood test?

A PFAS blood test measures the levels of certain PFAS chemicals in a person's blood at the time of the test. The results provide an indication of how much PFAS has entered your body over time. You can compare your results to levels found in other groups of people to determine whether your levels are elevated. Results can also provide a baseline so you can monitor changes over time, and they can support actions by agencies to reduce community exposures.

Results can be shared with your doctor for consideration as a risk factor for associated health outcomes and can inform conversations about reducing PFAS exposure and monitoring your health.

## What won't a PFAS blood test tell me?

A PFAS blood test can't tell you where the PFAS in your body came from or how long you've been exposed. PFAS can come from many different sources including drinking water, food, and consumer products. Nearly everyone has some measurable amount of PFAS in their blood.

A blood test also doesn't directly indicate whether any health conditions you are experiencing were caused by PFAS exposure or definitively predict whether you are likely to develop certain health problems in the future.

## How do I get a PFAS blood test?

Your doctor may be able to order a PFAS blood test. Providers should use ICD-10 diagnosis code Z13.88, and if ordering a test through Quest, they should use Test Code 39307 and CPT code 82542. Let your provider know you prefer a lab that measures both linear and branched isomers and a comprehensive panel that includes many compounds (see explanation on next page).

If your doctor cannot order the test, ask if they can help with a blood draw. Either way, you can contact a lab directly to request the test.

## How do I find a lab?

Several labs in North America currently offer PFAS blood testing to individuals: AXYS Analytical, EmpowerDX, and Eurofins. AXYS and Eurofins measure PFAS in blood serum, and EmpowerDX offers a home finger-prick test. NMS Labs does not offer tests to directly to individuals, but does provide blood testing to other entities, including Quest and LabCorp that do offer testing to individuals through clinicians.

For information about price, specific chemicals tested, and lab requirements, see our online guide (**bit.ly/pfas-blood-test**).

### Blood draw vs. finger-prick tool

- Most labs require a **blood draw** by a phlebotomist so they can test a large amount of your blood. This has been preferred for many years, is well studied, and may have legal benefits.
- EmpowerDX (part of Eurofins) offers a **finger-prick tool** that allows you to collect a sample at home and will test your whole blood. Note that if PFAS levels in your blood are low, this test may be less likely to detect the PFAS.

### Limitations you may encounter

- Health insurance may not cover costs.
- The maximum number of PFAS that can be tested is around 40. This is a small number compared to the thousands of PFAS that exist.

## A note about litigation

If you are considering legal action, consult a lawyer before testing your blood. Discovery of PFAS in blood may start the clock on a statute of limitations that could prevent you from litigating in the future. Note that certain documentation may be required in legal settings, so you may need a blood draw (rather than a finger-prick) by a phlebotomist who can serve as a documented witness.

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## Questions to ask when choosing a lab

Selecting a laboratory to conduct PFAS blood testing can be a confusing process. Here are some questions that you may want to keep in mind as you ask for information from blood testing laboratories.

1. **What is the cost? Does it include shipping and blood draw?** PFAS blood testing can be expensive. Depending on the lab and the number of chemicals tested, the test typically costs in the range of $400-$600.
2. **Do you conduct testing for individuals or only for multiple samples?** Some labs will send a kit for an individual to provide one blood sample for analysis. Others require a larger group of people.
3. **How do I get a blood sample? Are there clinics you work with? Can you help find one? Can a clinic handle shipping or would I need to do that myself?** Finding a phlebotomy clinic to do the blood draw, process the sample, and send it to a lab can be a challenge. Sometimes the lab or your doctor may be able to help. If the clinic does not handle shipping, you can also ask if there are specific instructions for sending your sample. A blood sample drawn at a clinic by a phlebotomist should typically be shipped overnight on dry ice (which requires special handling), whereas a finger-prick sample can be shipped at room temperature or overnight on regular ice.
4. **How many PFAS chemicals does the lab test for, and which ones?** Some labs only test for a few PFAS chemicals, while others test for over 40. Two of the most common are PFOA and PFOS. Testing for more PFAS at low detection limits will help you understand your exposure to a broader range of PFAS.
5. **What are the lab's detection limits?** Detection limits refer to the lowest levels of PFAS in blood that a lab can identify and measure. Lower detection limits are preferable because they indicate that the test measures lower levels of PFAS. Our online guide to PFAS lab testing provides detection limits for specific labs in North America. Detection limits are often in the range of 0.1 to 1 parts per billion (ppb), also written as nanograms per milliliter (ng/mL). Note that the levels of PFAS in whole blood are around half the levels in serum (the liquid part of blood), since PFAS tend to be more concentrated in serum. If you have whole blood tested (for instance, with a finger-prick tool), the test will be less sensitive than a test that measures serum, and you will need to be sure that you take this into account when comparing your result to other results.
6. **Does the lab test both linear and branched isomers?** Some PFAS chemicals are present in blood as a mixture of related chemical structures called **isomers**. Most labs will report the total amount of linear and branched isomers, but some labs only report linear isomers. Measuring only linear isomers will underestimate the amount of these PFAS chemicals in your blood. Results for the general population reported by the CDC's NHANES testing program are based on the sum total of both linear and branched isomers, and can't be directly compared to the results of testing that only includes linear isomers.
7. **How long does it take to get my results?** This may take 1-4 weeks or longer, and may vary by lab.
8. **Does your lab work with any insurance companies?** The top PFAS labs currently cannot take insurance. In some cases, insurance companies will cover the cost of PFAS testing but the lab options may be limited. You can talk with your doctor's office or health insurance provider to determine what steps are needed for the cost of the test to be covered. New Hampshire requires insurance provides to cover test costs.

## How can I interpret my PFAS blood test results?

- **Compare your results**. Our PFAS-REACH "**What's My Exposure**" tool will compare your PFAS blood levels with others in the U.S. and provide other useful information.
- **Talk to your doctor**. Our PFAS-REACH medical screening guidance, "**PFAS Exposure: Information for patients and guidance for clinicians**," has information to help you discuss PFAS blood testing with your doctor.

## For more information about labs

Our online guide, "**Information about PFAS blood testing laboratories for individuals**," provides updated information about blood testing labs in North America.

**bit.ly/pfas-blood-test**

**For more information, visit: www.pfas-exchange.org**