

## Appendix A2: Household Recruitment Letter and Fact Sheets

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### PFAS Exposure Assessment, biological sampling

#### Household Recruitment Letter

Reading Level: 9.9

Dear [Insert Name],

Your household is invited to be a part of an assessment that will measure the levels of per- and polyfluoroalkyl substances (PFAS) in people living in your community. The Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR) is trying to determine the level of PFAS in the bodies of people who may have consumed contaminated drinking water while living near the [*Insert name of city/town/place here*].

CDC/ATSDR will conduct this exposure assessment from [*insert dates here*]. **This letter explains the procedures, risks, and benefits of our exposure assessment to help you decide if you would like to participate.**

**Within the next week, an ATSDR representative will call you to discuss the exposure assessment, answer any questions you have, and sign you up if you decide to take part. The call will take about 5 minutes of your time. Only households receiving letters are being asked to participate. You can also contact us at [insert contact information].**

Here is what you can expect if you choose to participate in the exposure assessment project:

First, when you arrive for your appointment, we will greet you and check you in and will ask you to sign a form agreeing to participate in the testing. We will then ask you to answer a few questions about yourself, your health, and possible exposure to PFAS through water, food, and your environment. The questionnaire should take less than 30 minutes to complete.

We will also ask you to give us a blood sample and urine sample. A phlebotomist will draw a small amount of your blood for testing. On the morning of your blood sampling appointment, you will collect a sample of your first morning urine in a collection cup we will provide. Your samples will be labeled with a unique code. Only the project coordinator will be able to identify whose blood and urine the sample is from.

**Your blood and urine will not be tested for HIV, or for the presence of alcohol or drugs.** There will be no charge to you for the sample collection or the laboratory analysis. Your blood sample will be sent to the National Center for Environmental Health (NCEH) laboratory in Atlanta, GA. It will be analyzed for PFAS. Some of the urine samples we collect will be analyzed for PFAS – the rest will be saved and stored for analysis in the future, if you give us permission. We will give you the results if we analyze your urine sample in the future.

As soon as your test results are available, we will mail them to you at the address you provided on the questionnaire. If you would like to talk with a healthcare provider about your results, one working on the exposure assessment will be available to you free of charge.

Your PFAS level results (not including any information that would identify you personally) will also be used by ATSDR to improve the understanding of PFAS exposure in your community and the general population.

Research to better understand the health effects associated with PFAS exposure is ongoing, but scientists are not currently certain of how PFAS levels in the blood can affect a person's health. More research is needed to clarify the risks posed by PFAS exposure. It is possible that new tests will be developed in the future that will

increase our understanding of how PFAS impact human health. We would like to keep your blood and urine samples so that scientists can test for more things if new tests are developed. To do this, we will need your permission. We will provide you with the results of future testing.

### **The Risks of Participating in Our Exposure Assessment**

This exposure assessment requires 6 milliliters of blood (which is about 1 teaspoon). You may feel a sharp sting from the needle used to draw your blood. Sometimes a bruise or small blood clot appears at the site. These bruises or clots usually go away on their own. Putting heat on the site can also help the bruise or clot to go away. Although it is not common, the needle could irritate a nerve. This irritation can cause numbness in part of the arm.

Risk of injury from the blood draw is higher for people with bleeding disorders and for anyone on blood thinning medications (such as Coumadin) and other therapies. If you have a bleeding disorder or are taking blood thinning medication, we recommend that you talk to your doctor before participating in this exposure assessment. Another possible risk from the blood draw is infection, which can develop as a result of the puncture through the skin. Much like they do in other healthcare settings such as doctor's offices and hospitals, our certified phlebotomists will follow standard precautions to minimize this risk. You or your health insurance company would be responsible for any follow-up care if you are injured as a result of the blood draw.

### **The Benefits of Participating in Our Exposure Assessment**

**Your participation in this assessment will give you information about levels of PFAS in your body and potentially help you reduce your exposure.** Your participation will provide a better understanding of the extent of exposure to PFAS within your community and will also help scientists understand the range of PFAS exposure and possible exposure sources in your community. Work to better understand the health effects associated with PFAS exposure is ongoing, but scientists are not currently certain of how PFAS levels in the body can affect a person's health. More work is needed to clarify the risks posed by PFAS exposure. Your participation in this assessment will help advance this research.

We will **not** be able to tell you if the PFAS levels in your blood or urine will make you sick now or later in life. You will be able to call project staff during and after the exposure assessment if you have any questions about your results. If your doctor has questions about PFAS, he or she may also call project staff or the physician working on the exposure assessment. The names and phone numbers of people to call are listed below.

### **Additional Information and Privacy Act Statement:**

- **Results:** We will send you a letter with your PFAS test results along with how they compare to levels in other people in the United States. Some people may feel worried or anxious about their results. There is little we can tell you about what your results mean for your individual health. We do not yet know enough to say whether there are levels in the blood or urine that are safe or unsafe. This assessment will only tell you how much PFAS are currently in your body. It will not tell you when or for how long you were exposed.
- **Privacy:** All personally identifiable information (such as name, address, date of birth) gathered for the exposure assessment is private. This information is protected to the extent possible by (*insert name of state here*) and federal laws related to privacy protection. Only trained and authorized project staff will have access to information that can identify you, and we will keep all of the information in a secure, locked database or file at all times. Aside from the exposure assessment team, you are the only one who will receive your individual results. In accordance with CDC/ATSDR's policy regarding data access,

sampling results that do not include PII may be used by public health researchers for approved research purposes.

- **Voluntary Participation:** Participation in this exposure assessment is completely voluntary. Your choice will not affect your current or future relationships with groups that are part of the exposure assessment. Even if you decide to participate, you are free to quit the exposure assessment at any time. If project staff decide it is in your best interest, or if you fail to meet the exposure assessment criteria, you may be removed from the exposure assessment without your consent.

The enclosed fact sheets provide more information about PFAS.

You can expect a call within the next week from [INSERT CALL DETAILS] inviting you to participate in the exposure assessment.

If you would like to indicate your willingness to be a part of this exposure assessment now, please contact us [INSERT PHONE NUMBER and HOURS OF OPERATION]. Remember, only households receiving an invitation letter are eligible to participate.

If you have any additional questions, please feel free to contact [*insert contact information*].

Thank you,

Enclosures:

- PFAS Frequently Asked Questions Fact Sheet
- PFAS Family Tree Fact Sheet
- PFAS Exposure Assessment Fact Sheet

# Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

## Frequently Asked Questions

### What are PFAS?

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that have been used in industry and consumer products worldwide since the 1950s.

- PFAS do not occur naturally, but are widespread in the environment.
- PFAS are found in people, wildlife and fish all over the world.
- Some PFAS can stay in people's bodies a long time.
- Some PFAS do not break down easily in the environment.

### How can I be exposed to PFAS?

PFAS contamination may be in drinking water, food, indoor dust, some consumer products, and workplaces. Most non worker exposures occur through drinking contaminated water or eating food that contains PFAS.

Although some types of PFAS are no longer used, some products may still contain PFAS:

- Food packaging materials
- Nonstick cookware
- Stain resistant carpet treatments
- Water resistant clothing
- Cleaning products
- Paints, varnishes and sealants
- Firefighting foam
- Some cosmetics

### How can I reduce my exposure to PFAS?

PFAS are present at low levels in some food products and in the environment (air, water, soil etc.), so you probably cannot prevent PFAS exposure altogether. However, if you live near known sources of PFAS contamination, you can take steps to reduce your risk of exposure.

- If your drinking water contains PFAS above the EPA Lifetime Health Advisory, consider using an alternative or treated water source for any activity in which you might swallow water:
  - › drinking
  - › food preparation
  - › cooking
  - › brushing teeth, and
  - › preparing infant formula
- Check for fish advisories for water bodies where you fish.
  - › Follow fish advisories that tell people to stop or limit eating fish from waters contaminated with PFAS or other compounds.
  - › Research has shown the benefits of eating fish, so continue to eat fish from safe sources as part of your healthy diet.
- Read consumer product labels and avoid using those with PFAS.



# The family tree of perfluoroalkyl and polyfluoroalkyl substances (PFAS)

6/9/17

## Names and abbreviations

This fact sheet tells you about chemical names within the family of perfluoroalkyl and polyfluoroalkyl substances (PFAS) and their basic chemical structure. It also spells out abbreviations for common PFAS.

PFAS are a family of man-made chemicals that contain carbon, fluorine, and other elements.

The family tree image below, Figure 1, shows some of the different families of PFAS. For simplicity, it does not include all PFAS subfamilies. Follow along – starting at the “fallen apple” of PFC and then continuing up the tree trunk into the branches.

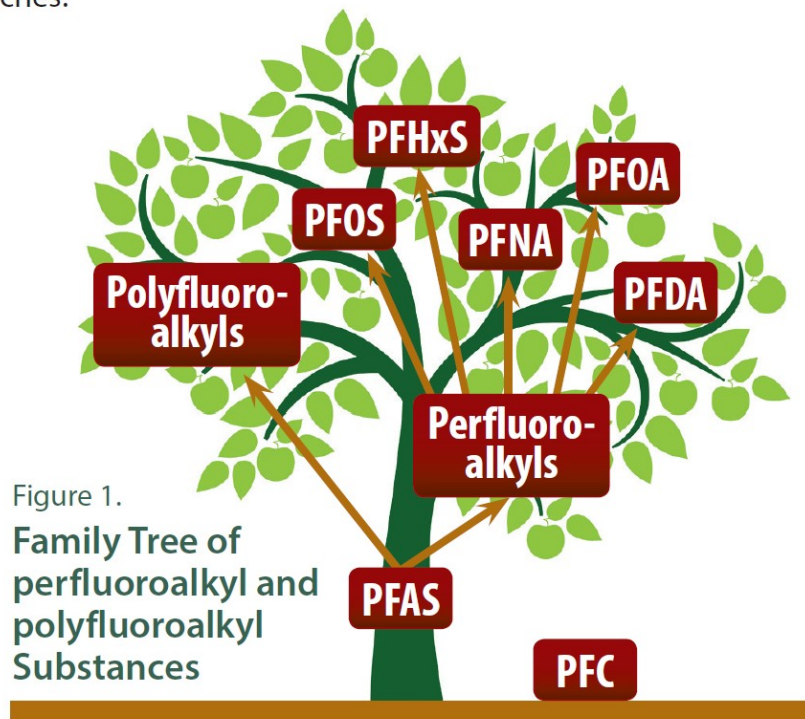


Figure 1.  
Family Tree of  
perfluoroalkyl and  
polyfluoroalkyl  
Substances

## PFC

In the past, scientists used the abbreviation PFC to stand for perfluorinated chemicals.

However, using the abbreviation PFC can be confusing because it is also an abbreviation for perfluorocarbons. Perfluorocarbons are an entirely different family of chemicals, also known as greenhouse gases.

The term PFC has fallen off the family tree, but it remains in the diagram as a reminder of past use. You may still see informational materials using the term "PFC" instead of PFAS.

## PFAS

Perfluoroalkyl substances and polyfluoroalkyl substances are called PFAS for short. The PFAS family includes hundreds of chemicals. The different structures of the PFAS molecules are the basis for different chemical properties and different chemical names. See Table 1 for abbreviations and chemical names.

Table 1. **Common PFAS: Abbreviations and Names**

Abbreviation	Chemical name
PFOS	Perfluorooctane sulfonic acid
PFOA (aka C8)	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFOSA (aka FOSA)	Perfluorooctane sulfonamide
MeFOSAA (aka Me-PFOSA-AcOH)	2-(N-Methyl-perfluorooctane sulfonamido) acetic acid
Et-FOSAA (aka Et-PFOSA-AcOH)	2-(N-Ethyl-perfluorooctane sulfonamido) acetic acid
PFHxS	Perfluorohexane sulfonic acid