Evaluating the Association between Serum Concentrations of Per- and Polyfluoroalkyl Substances (PFAS) and Symptoms and Diagnoses of Selected Acute Viral Illnesses Adult (≥ 18 years of age) Follow-up

Please complete the survey below.

Thank you!

Form Approved

OMB No. 0923-xxxx

Exp. Date xx/xx/202x

Introduction

This is the 1st follow-up survey for the PFAS and Viral Infections Study. The purpose of this study is to improve our understanding of the relationship between the amount of PFAS in a person's blood and susceptibility to acute (short-term) viral illnesses. This includes the COVID-19 virus as well as other viral illnesses. You enrolled in this study and you completed the initial survey around [enter date]. We would now like to invite you to complete this follow-up survey that is asking about the time period from (date) to (date).

Remember to look back at your symptom diary to remind yourself of any symptoms you may have experienced in the time period from (date) to (date). The symptom diary will help you complete this survey more easily!

Please enter your participant identification number located on the Invitation Letter you received at the start of this study.

_____

Section 1. Instructions for completion and submission

This survey is divided into sections and should take about 25 minutes to complete. As you go through each section, read each question carefully and answer as best as you can. If you have questions and would like to speak with a member of the study team, please call xxx-xxx-xxxx or send an email with your question to xxx@xxx.xxx. Thank you for being in this study.

Please remember, this survey is asking about the time period from (date) to (date).

Section 2. Demographic and Health Information

In the time period from (date) to (date), did you get an Influenza vaccine (Flu shot)?

◯ Yes
◯ No
◯ Prefer not to answer

When did you get that Influenza Vaccine (Flu shot)? Please enter month/day/year.

_____

In the time period from (date) to (date), did you get a dose of a COVID-19 vaccine?

◯ Yes
◯ No
◯ Prefer not to answer

When did you get that dose of a COVID-19 vaccine? Please enter month/day/year.

_____

Which brand did you get for that dose of COVID-19 vaccine?

◯ Pfizer
◯ Moderna
◯ Johnson & Johnson
◯ Other

In the time period from (date) to (date), did you get another COVID-19 vaccine?

◯ Yes
◯ No
◯ Prefer not to answer

When did you get that additional dose of a COVID-19 vaccine? Please enter month/day/year.

_____

Which brand did you get for that additional dose of COVID-19 vaccine?

◯ Pfizer
◯ Moderna
◯ Johnson & Johnson
◯ Other

In the time period from (date) to (date), have you received a brand new diagnosis by a doctor or other health care professional of any of the chronic medical conditions listed in the chart below?

	New diagnosis	No new diagnosis	Prefer not to answer
Asthma	◯	◯	◯
Chronic Obstructive Pulmonary Disease (COPD)	◯	◯	◯
Cystic Fibrosis	◯	◯	◯
Other Chronic Lung Disease (please specify below)	◯	◯	◯
Hypertension (High Blood Pressure)	◯	◯	◯
Congenital (since birth) Heart Disease	◯	◯	◯
Chronic Heart Failure	◯	◯	◯
Coronary Artery Disease	◯	◯	◯
Cardiomyopathy	◯	◯	◯
Other Heart / Cardiovascular Disease (please specify below)	◯	◯	◯
Diabetes (type 1 or 2)	◯	◯	◯
Chronic Kidney Disease	◯	◯	◯
Liver disease	◯	◯	◯
Seasonal Allergies	◯	◯	◯
Cancer	◯	◯	◯
Currently on Chemotherapy	◯	◯	◯
History of Bone Marrow or Stem Cell Transplant	◯	◯	◯
History of organ transplant	◯	◯	◯
Immunocompromised state (weakened immune system)	◯	◯	◯
Sickle Cell Disease (Sickle Cell Anemia)	◯	◯	◯
Inherited Metabolic Disorders	◯	◯	◯
Neurologic Disease (epilepsy / seizure disorder)	◯	◯	◯
Intellectual disability	◯	◯	◯
Cerebral palsy	◯	◯	◯
Dementia	◯	◯	◯
Other Developmental Disability (please specify below)	◯	◯	◯
Depression	◯	◯	◯

Anxiety	○	○	○

If you selected "Other Chronic Lung Disease" above, please specify:

_____

If you selected "Other Heart/Cardiovascular Disease" above, please specify:

_____

If you selected "Other Developmental Disability" above, please specify:

_____

Section 3. Similar to the survey you already completed, the questions in this section relate to how often you are in situations that may increase your risk of exposure to viruses through close contact with other people.

Including yourself, how many people live in your household? Please include individuals who sleep in the home at least 2 nights per week; please do not include those who are living away from home for school.

_____

How many children less than 5 years old live in your household?

_____

How many children aged 5-11 years live in your household?

_____

How many children aged 12-17 years live in your household?

_____

How many adults aged 18-64 years live in your household?

_____

How many adults aged 65 years and older live in your household?

_____

How many bedrooms are in your house?

_____

Please answer the next six questions based on your average experience in the time period from (date) to (date). If the question does not apply to you, please enter "0". (Note: the first three questions ask for number of hours per week and the last 3 questions ask for number of times per week)

On average, how many hours per week do you work in an indoor location that is not your home?

_____

On average, how many hours per week do you attend school in person in an indoor classroom setting?

_____

On average, how many hours per week are you in a situation that requires regular close contact (within 6 feet for a total of 15 minutes or more) with people who do not live with you? Please do not include transportation here; it will be asked in the next set of questions.

_____

On average, how many times per week do you travel by bus or train in which the trip takes 15 minutes or longer?

_____

On average, how many times per week do you carpool with people who do not live with you?

_____

On average, how many times per week do you play sports or participate in other extracurricular activities (e.g., volunteer, social, or religious activities) indoors with other people that do not live with you?

_____

Do you have children or adults living with you who are attending in-person daycare, school, college, or technical/trade school? Please do not include those who are living away from home for school.

◯ Yes
◯ No
◯ Don't know / Prefer not to answer

Are there other people living with you that work in person at an indoor location that is not your home?

◯ Yes
◯ No
◯ Don't know / prefer not to answer

Section 4. Viral Illness History

This section relates to symptoms of illness that might have been caused by viruses, as well as medical care or medical testing you may have received for those illnesses. We are interested in illnesses you experienced in the time period from (date) to (date) that included fever, chills, respiratory symptoms (such as nasal congestion, runny nose, cough, shortness of breath or sore throat), or gastrointestinal symptoms (such as nausea, vomiting, diarrhea or abdominal pain).

For this section, an Episode of illness is one distinct period of time when you were sick or experienced a set of symptoms. For example, Episode #1 (first episode) may represent an illness in January and Episode #2 (second episode) may represent a different illness in March. In addition, an Episode of illness would start when you first started to feel sick and would end when you felt back to normal, even if the specific symptoms changed during that time (for example, an illness might start with a sore throat and end with a cough).

In the time period from (date) to (date), have you had any episodes of illness?

◯ Yes
◯ No
◯ Don't know

For the first episode of illness you had in the time period from (date) to (date), what was the approximate date when the first symptom began:

_____

For the first episode of illness you had in the time period from (date) to (date), did you have any of the following symptoms?

	Yes	No
Fever (100 degrees or higher measured with a thermometer)	◯	◯
Felt feverish (even if you did not take your temperature with a thermometer)	◯	◯
Chills or repeated shaking with chills	◯	◯
Cough	◯	◯
Shortness of breath or difficulty breathing	◯	◯
Nasal congestion (stuffy or blocked nose)	◯	◯
Runny nose	◯	◯

Sore throat	◯	◯
New loss of taste or smell	◯	◯
Headache	◯	◯
Fatigue	◯	◯
Muscle pains or body aches	◯	◯
Nausea or stomach upset	◯	◯
Abdominal pain	◯	◯
Vomiting	◯	◯
Diarrhea	◯	◯
Unexplained rash	◯	◯

For this first episode of illness, please enter the number of days that you had each of the your symptoms.

Fever (100 degrees or higher measured with a thermometer)

_____

Felt feverish (even if you did not take your temperature with a thermometer)

_____

Chills or repeated shaking with chills

_____

Cough

_____

Shortness of breath or difficulty breathing

_____

Nasal congestion (stuffy or blocked nose)

_____

Runny nose

_____

Sore throat

_____

New loss of taste or smell

_____

Headache

_____

Fatigue

_____

Muscle pains or body aches

_____

Nausea or stomach upset

_____

Abdominal pain

_____

Vomiting

_____

Diarrhea

_____

Unexplained rash

_____

For the first episode of illness you had in the time period from (date) to (date), did you travel using the following modes of transportation in the 14 days before onset of symptoms? Please don't include local daily travel for work, school, or routine activities such as grocery shopping.

	Yes	No	Prefer not to answer
Bus	◯	◯	◯
Train	◯	◯	◯
Airplane	◯	◯	◯

For the first episode of illness you had in the time period from (date) to (date), did you seek and/or receive medical care or testing for your symptoms?

◯ Yes
◯ No
◯ Prefer not to answer

If you answered YES to the previous question, please answer the remaining questions in this table.

	Yes	No	Prefer not to answer
Did you receive in-person care or testing at a physician's or other healthcare provider's office?	◯	◯	◯
Did you receive care or testing from a physician's or other healthcare provider's office using Telehealth (by phone or computer)?	◯	◯	◯
Did you receive care or testing at a Pharmacy (testing or treatment by a pharmacist or at a clinic located at/within a pharmacy)?	◯	◯	◯
Did you receive care or testing at an Urgent Care Clinic?	◯	◯	◯
Did you receive care or testing at a drive-thru/drive-up testing site?	◯	◯	◯
Did you receive care or testing at a Hospital Emergency Department (ER)?	◯	◯	◯
Were you hospitalized overnight for your symptoms? (not ER)	◯	◯	◯

Did you receive a diagnosis from a physician?

◯ Yes
◯ No

If yes, what was the diagnosis?

_____

For the first episode of illness, in the time period from (date) to (date), were any of the following tests performed? And what were the results? Please choose one best answer for each of the tests listed. (+) indicates any positive test and (-) indicates only negative tests. For example, if you had two flu tests performed for this first episode of illness and one was negative and one was positive, please mark the column labeled 'Any positive test (+)'. For the chest x-ray, (+) result means an abnormal result and (-) means a normal result.

	Not done	Any positive test (+)	Only negative tests (-)	Indeterminant or don't know

Influenza (flu) nasal swab test	◯	◯	◯	◯
Respiratory Syncytial Virus (RSV) nasal swab test	◯	◯	◯	◯
Nasal swab for other viruses (not including COVID-19)	◯	◯	◯	◯
Strep test (throat swab)	◯	◯	◯	◯
Chest x-ray	◯	◯	◯	◯
COVID-19 diagnostic test: nasal swab, nasopharyngeal swab, mouth or throat swab, saliva test	◯	◯	◯	◯
COVID-19 blood test (serology or antibody test)	◯	◯	◯	◯

Have you had more than one episode of illness in the time period from (date) to (date)?

◯ Yes
◯ No

For the second episode of illness you had in the time period from (date) to (date), what was the approximate date when the first symptom began:

_____

For the second episode of illness you had in the time period from (date) to (date), did you had any of the following symptoms?

	Yes	No
Fever (100 degrees or higher measured with a thermometer)	◯	◯
Felt feverish (even if you did not take your temperature with a thermometer)	◯	◯
Chills or repeated shaking with chills	◯	◯
Cough	◯	◯
Shortness of breath or difficulty breathing	◯	◯
Nasal congestion (stuffy or blocked nose)	◯	◯
Runny nose	◯	◯
Sore throat	◯	◯
New Loss of taste or smell	◯	◯
Headache	◯	◯
Fatigue	◯	◯

Muscle pains or body aches	◯	◯
Nausea or stomach upset	◯	◯
Abdominal pain	◯	◯
Vomiting	◯	◯
Diarrhea	◯	◯
Unexplained rash	◯	◯

For this second episode of illness, please indicate the number of days that you had each of the your symptoms?

Fever (100 degrees or higher measured with a thermometer)

_____

Felt feverish (even if you did not take your temperature with a thermometer)

_____

Chills or repeated shaking with chills

_____

Cough

_____

Shortness of breath or difficulty breathing

_____

Nasal congestion (stuffy or blocked nose)

_____

Runny nose

_____

Sore throat

_____

New loss of taste or smell

_____

Headache

_____

Fatigue

_____

Muscle pains or body aches

_____

Nausea or stomach upset

_____

Abdominal pain

_____

Vomiting

_____

Diarrhea

_____

Unexplained rash

_____

For the second episode of illness you had in the time period from (date) to (date), did you travel using the following modes of transportation in the 14 days before onset of symptoms? Please don't include local daily travel for work, school, or routine activities such as grocery shopping.

	Yes	No	Prefer not to answer
Bus	◯	◯	◯
Train	◯	◯	◯
Airplane	◯	◯	◯

For the second episode of illness you had in the time period from (date) to (date), did you seek and/or receive medical care or testing for your symptoms?

◯ Yes
◯ No
◯ Prefer not to answer

If you answered YES to the previous question, please answer the remaining questions in this table.

	Yes	No	Prefer not to answer
Did you receive in-person care or testing at a physician's or other healthcare provider's office?	◯	◯	◯
Did you receive care or testing from a physician's or other healthcare provider's office using Telehealth (by phone or computer)?	◯	◯	◯
Did you receive care or testing at a Pharmacy (testing or treatment by a pharmacist or at a clinic located at/within a pharmacy)?	◯	◯	◯
Did you receive care or testing at an Urgent Care Clinic?	◯	◯	◯
Did you receive care or testing at a drive-thru/drive-up testing site?	◯	◯	◯
Did you receive care or testing at a Hospital Emergency Department (ER)?	◯	◯	◯
Were you hospitalized overnight for your symptoms? (not ER)?	◯	◯	◯

Did you receive a diagnosis from a physician?

◯ Yes
◯ No

If yes, what was the diagnosis?

_____

For the second episode of illness, in the time period from (date) to (date), were any of the following tests performed? And what were the results? Please choose one best answer for each of the tests listed. (+) indicates any positive test and (-) indicates only negative tests. For example, if you had two flu tests performed for this second episode of illness and one was negative and one was positive, please mark the column labeled 'Any positive test (+)'. For the chest x-ray, (+) result means an abnormal result and (-) means a normal result.

	Not done	Any positive test (+)	Only negative tests (-)	Indeterminant or don't know

Influenza (flu) nasal swab test	◯	◯	◯	◯
Respiratory Syncytial Virus (RSV) nasal swab test	◯	◯	◯	◯
Nasal swab for other viruses (not including COVID-19)	◯	◯	◯	◯
Strep test (throat swab)	◯	◯	◯	◯
Chest x-ray	◯	◯	◯	◯
COVID-19 diagnostic test: nasal swab, nasopharyngeal swab, mouth or throat swab, saliva test	◯	◯	◯	◯
COVID-19 blood test (serology or antibody test)	◯	◯	◯	◯

Have you had more than two episodes of illness in the time period from (date) to (date)?

◯ Yes
◯ No

For the third episode of illness you had in the time period from (date) to (date), what was the approximate date when the first symptom began:

_____

For the third episode of illness you had in the time period from (date) to (date), did you had any of the following symptoms?

	Yes	No
Fever (100 degrees or higher measured with a thermometer)	◯	◯
Felt feverish (even if you did not take your temperature with a thermometer)	◯	◯
Chills or repeated shaking with chills	◯	◯
Cough	◯	◯
Shortness of breath or difficulty breathing	◯	◯
Nasal congestion (stuffy or blocked nose)	◯	◯
Runny nose	◯	◯
Sore throat	◯	◯
New Loss of taste or smell	◯	◯
Headache	◯	◯
Fatigue	◯	◯

Muscle pains or body aches	◯	◯
Nausea or stomach upset	◯	◯
Abdominal pain	◯	◯
Vomiting	◯	◯
Diarrhea	◯	◯
Unexplained rash	◯	◯

For the third episode of illness, please indicate the number of days that you had each of the your symptoms?

Fever (100 degrees or higher measured with a thermometer)

_____

Felt feverish (even if you did not take your temperature with a thermometer)

_____

Chills or repeated shaking with chills

_____

Cough

_____

Shortness of breath or difficulty breathing

_____

Nasal congestion (stuffy or blocked nose)

_____

Runny nose

_____

Sore throat

_____

New loss of taste or smell

_____

Headache

_____

Fatigue

_____

Muscle pains or body aches

_____

Nausea or stomach upset

_____

Abdominal pain

_____

Vomiting

_____

Diarrhea

_____

Unexplained rash

_____

For the third episode of illness you had in the time period from (date) to (date), did you travel using the following modes of transportation in the 14 days before onset of symptoms? Please don't include local daily travel for work, school, or routine activities such as grocery shopping.

	Yes	No	Prefer not to answer
Bus	◯	◯	◯
Train	◯	◯	◯
Airplane	◯	◯	◯

For this third episode of illness you had in the time period from (date) to (date), did you seek and/or receive medical care or testing for your symptoms?

◯ Yes
◯ No
◯ Prefer not to answer

If you answered YES to the previous question, please answer the remaining questions in this table.

	Yes	No	Prefer not to answer
Did you receive in-person care or testing at a physician's or other healthcare provider's office?	◯	◯	◯
Did you receive care or testing from a physician's or other healthcare provider's office using Telehealth (by phone or computer)?	◯	◯	◯
Did you receive care or testing at a Pharmacy (testing or treatment by a pharmacist or at a clinic located at/within a pharmacy)?	◯	◯	◯
Did you receive care or testing at an Urgent Care Clinic?	◯	◯	◯
Did you receive care or testing at a drive-thru/drive-up testing site?	◯	◯	◯
Did you receive care or testing at a Hospital Emergency Department (ER)?	◯	◯	◯
Were you hospitalized overnight for your symptoms? (not ER)?	◯	◯	◯

Did you receive a diagnosis from a physician?

◯ Yes
◯ No

If yes, what was the diagnosis?

_____

For the third episode of illness, in the time period from (date) to (date), were any of the following tests performed? And what were the results? Please choose one best answer for each of the tests listed. (+) indicates any positive test and (-) indicates only negative tests. For example, if you had two flu tests performed for this third episode of illness and one was negative and one was positive, please mark the column labeled 'Any positive test (+)'. For the chest x-ray, (+) result means an abnormal result and (-) means a normal result.

	Not done	Any positive test (+)	Only negative tests (-)	Indeterminant or don't know

Influenza (flu) nasal swab test	◯	◯	◯	◯
Respiratory Syncytial Virus (RSV) nasal swab test	◯	◯	◯	◯
Nasal swab for other viruses (not including COVID-19)	◯	◯	◯	◯
Strep test (throat swab)	◯	◯	◯	◯
Chest x-ray	◯	◯	◯	◯
COVID-19 diagnostic test: nasal swab, nasopharyngeal swab, mouth or throat swab, saliva test	◯	◯	◯	◯
COVID-19 blood test (serology or antibody test)	◯	◯	◯	◯

Have you had more than three episodes of illness in the time period from (date) to (date)?

◯ Yes
◯ No

Section 5. Questions specific to COVID-19

This section relates to COVID-19 or a COVID-19-like illness. The items listed below could have happened more than once. For each question you answer "Yes", please indicate, to the best of your recollection, the number of times and the approximate dates, starting with the earliest, that the item occurred in the time period from (date) to (date). Enter the dates using 2 digits for the month and 4 digits for the year. If you are entering multiple dates for an item, please separate each by a comma. (Example: 01/2020, 02/2020)

For questions below that ask about COVID-19 testing, please note:

There are different types of COVID-19 tests available. Some test for current infection and some test for past infection.

A viral test tells you if you have a current infection. Two types of viral tests can be used: nucleic acid amplification tests (often called PCR tests) and antigen tests. The viral test involves collecting a specimen with a swab from the nose, nasopharynx, mouth, or throat; or collecting saliva.

An antibody test (also known as a serology test) is a blood test that might tell you if you had a past infection. Antibody tests are not used to diagnose a current infection.

Were you in close contact (defined as within 6 feet for a total of 15 minutes or more) with a person who you know had active COVID-19 that was confirmed with a positive COVID-19 viral test?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Were you in close contact (defined as within 6 feet for a total of 15 minutes or more) with a person who you suspect had active COVID-19, but who (to your knowledge) did not have COVID-19 confirmed with a positive COVID-19 viral test?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Have you been advised to self-quarantine (separate yourself from others and monitor for signs of infection for 10-14 days) because of exposure to someone with a positive COVID-19 viral test?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Have you provided care for someone who had a positive viral test for COVID-19 at the time you were providing care?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Have you had a positive viral test for COVID-19 while having no symptoms?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Have you had an antibody blood test for COVID-19 (either positive or negative)?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Have you had an antibody blood test for COVID-19 that was positive (indicated that you had antibodies to COVID-19)?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Besides you, has anyone else in your household had an illness that you suspected was COVID-19 but for which they did not receive testing for COVID-19?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Besides you, has anyone else in your household been tested with a viral test for COVID-19?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Besides you, has anyone else in your household had a positive viral test for COVID-19 while having no symptoms?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Besides you, has anyone else in your household had a positive viral test for COVID-19 while having symptoms?

◯ Yes
◯ No

If you answered yes, how many times?

_____

Please list the approximate dates in month and year (mm/yyyy).

_____

Date on which this survey was completed:

_____

Important note before you go:

Please take a moment to start the new symptom diary (attached). Please use this symptom diary to help you track your symptoms during the time period from (date) to (date). Using the symptom diary in between the surveys will help you complete the next survey more easily.

(Attach symptom diary with date span for 2nd follow-up survey to this field)

Please confirm your email address (it should be the same email address you provided for this survey) :

(Please remember, you must have your own, unique email address).

_____

Thank you for completing this survey! Be on the look out for the next survey coming in about 3 months.