

PFAS Blood Testing in Jersey: Supporting information to help understand your results

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This leaflet is designed to accompany your PFAS blood results letter. It provides information on what PFAS are, how to interpret your results, the relationship between PFAS and health, and who to contact if you want to have your private water supply tested or have any other questions.

Understanding PFAS

PFAS (Per- and polyfluoroalkyl substances) is the name for a group of man-made chemicals. The chemicals that your blood has been tested for (e.g., PFOS, PFOA) are part of this group.

PFAS are manufactured chemicals used in products designed to resist heat, oil, stains, and water. They have been used extensively around the world to prevent food sticking to cookware, to make sofas and carpets resistant to stains, to make clothes and mattresses more waterproof, and to make some food packaging resistant to grease absorption, as well as in some firefighting foams effective in tackling liquid fuel fires. PFAS are extremely persistent in the environment because they take a long time to break down.

As they have the potential to be harmful to health, most countries have phased out their use as far as practically possible to reduce human exposure, as a precaution. It is impossible to prevent all PFAS exposure; there are many sources that people are likely to be exposed to in everyday life. Internationally, it is believed to be the case that everyone generally has PFAS chemicals in their blood.

Interpreting your results

You should have received a results letter from your GP which shows your test results for the different types of PFAS. This will either be a list of 9 chemicals or 35 depending on whether you chose to have just the list that there are reference values for or the full list when your blood was taken.

Currently, there is not international agreement about how to interpret blood results, and the results are difficult to interpret. In the Public Health team, we have done our best to provide information in a way that is meaningful to you, but this is an area of research which is evolving and so this is not an exact science.

The purpose of the test was to give you an understanding of your blood levels of PFAS through a high-quality test. These results simply provide you with information about your blood level of PFAS; they will not change the symptom management, diagnosis, or treatment plan of any pre-existing conditions.

What can my results be compared to?

In the USA, there is a programme of studies called the National Health and Nutrition Examination Survey or NHANES for short. This combines interviews, examinations, and laboratory tests to assess the health and nutrition status of adults and children in the USA. The survey is designed to provide results which are representative of the USA population.

NHANES work with the USA Environmental Protection Agency to study environmental influences on health. They measure PFAS levels in 1 in 3 of their participants aged over 12 years. This means they have estimates of the average amount of PFAS in the blood for members of the public in the USA.

Some PFAS have been measured in more than one year in NHANES. We have used the most recently available year outlined in the table below.

Population averages from the USA National Health and Nutrition Examination Survey:

Analyte	Average [Geometric mean]	95th percentile	Year	Unit
EtFOSAA	N/A	0.11	2011-2012	ng/mL
MeFOSAA	0.198	1.0	2009-2010	ng/mL
PFDA	0.193	0.6	2017-2018	ng/mL
PFHxS	1.08	3.7	2017-2018	ng/mL
PFNA	0.411	1.4	2017-2018	ng/mL
PFOA	1.42	3.8	2017-2018	ng/mL
PFOS	4.25	14.6	2017-2018	ng/mL
PFOSA	N/A	<LOD	2011-2012	ng/mL
PFUnA	0.125	0.4	2017-2018	ng/mL

Geometric means not applicable where the majority of data is below limit of detection (LOD)

You may wish to compare your results to the USA population average, which is the reference population we used for comparison.

If your result is higher than the 95th percentile figure, this suggests that your result is higher than the average in the USA reference population. Otherwise, your result is not considered different to the USA reference population.

Please be aware that it is difficult to interpret results of blood tests for PFAS. There is not an accepted way of interpreting them internationally. In addition, there is limited agreement on the association in the scientific literature between exposure to PFAS, blood levels of PFAS and health effects. Because of this, having a higher result does not mean that PFAS is the cause of any health conditions you have now or may have in the future.

Currently, there are no approved interventions for removing PFAS from the blood, although if your exposure is reduced, levels in blood would be expected to fall over time.

November 2023 update: The PFAS Scientific Advisory Panel has been established and has made recommendations about therapeutic phlebotomy. Further details about the Panel are on the government website here [PFAS in Jersey \(gov.ie\)](https://www.nj.gov/health/our-work/prevention-and-control/pfas-in-jersey/).

Challenges with interpreting blood results

There are some challenges with interpreting blood results:

1. While NHANES was the best comparison we have, it is not a perfect comparison. The USA population and their exposure to PFAS through normal everyday items may not be the same as in Jersey. This means that we cannot be sure of how similar the USA population results would be to a Jersey population without any fire-fighting foam contamination. Therefore, we cannot be sure that results are due to the contamination or whether in Jersey we may just have a higher background level because of the everyday products we use etc.
2. Despite growing international interest in the health consequences, it is difficult to interpret the evidence between PFAS exposure and health impacts. There is some evidence that some health conditions may be associated with PFAS, but it is not possible to determine whether health conditions are caused or worsened by exposure to PFAS at this time.
3. There is not scientific or international agreement about what levels of PFAS in the blood might have an impact on health, or how that relationship changes based on the levels of PFAS in the blood.

4. These results cannot reliably be compared to any test results you may have had previously as the methods of collection and testing may vary.

Therefore, it is not possible to tell anything further about your blood level of PFAS including what, if any, impact this might have on health.

The relationship between PFAS and health

Your test results will not change the diagnosis or management of any symptoms or medical conditions you may have.

Despite growing international interest in the health consequences, it is difficult to interpret the evidence between PFAS and associated health impacts.

There is some evidence that suggests that exposure to PFAS can be associated with increased blood cholesterol, although, the differences are small and may not be significant to individual-level health. Evidence for other adverse health outcomes is generally limited, but these conditions include kidney conditions, testicular cancer and lower immune response to vaccines for diphtheria and rubella. It is not possible to tell whether exposure to PFAS has caused higher rates of disease, or whether there are other factors that account for findings.

There are challenges around determining the health impacts of all environmental contaminants, and most populations would be expected to have PFAS in their blood, so this is an area of continued study internationally.

November 2023 update: The PFAS Scientific Advisory Panel has been established and is looking into health impacts and possible interventions for reducing the PFAS body burden. Further details about the Panel are on the government website here [PFAS in Jersey \(gov.je\)](https://www.gov.je/pfas).

Reducing PFAS exposure

If you are drinking water from a private supply and have concerns it may be contaminated, Environmental Health would recommend you get the supply tested and do not drink it until you have the results. If you still live around the airport and do not have access to a mains water supply so are drinking water from a private supply, the Government of Jersey will fund this testing. Please contact Environmental Health to arrange testing. Details are below.

The mains water in Jersey is regularly tested for PFAS and meets the international standards for water quality including for PFAS. If you are not sure if you are connected to mains water, please contact Jersey Water. Details are below.

Support & questions

Psychological support: We understand that receiving these results may be a cause of stress or anxiety for you. Please contact the Listening Lounge if you require psychological support on 01534 866793 or visit <https://www.linc.je/listeninglounge>

Health questions: If you have questions about your health, please continue to raise them with your GP or health professional as appropriate. Your results should not change any diagnosis, treatment, or management of health conditions.

Mains water: To find out if your property is on mains water, please contact Jersey Water by calling 01573 707300 or visit <https://www.jerseywater.je/water-services/get-connected/>

Water or environment questions: If you have questions about your water supply, please direct these to Environmental Health by calling 01534 445808 or emailing EnvironmentalHealth@gov.je

Any other questions can be raised with Public Health, and we will do our best to assist you. Please email publichealth@gov.ie or call the Government on 01534 447590 and queries will be directed to Public Health or the most appropriate department.