Position Statement

May 2023

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Perfluoroalkyl and polyfluoroalkyl substances (PFAS) including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA)

PFAS are a large family of around 4,700 synthetic chemicals with numerous industrial uses such as non-stick cookware, waterproofing for clothes, suncreams, cosmetics and foams used to suppress or fight fires. They are highly persistent, that is they are hard to breakdown in the environment, they accumulate in the body, and some are potentially toxic or carcinogenic.¹

PFAS are ubiquitous in the environment, found in drinking water, food, especially fish and seafood, and consumer products. PFOS and PFOA, the most common breakdown products of larger PFAS, are found in most individuals in the developed world, including new-born babies although the levels in blood vary widely between individuals.²

Elevated levels of these chemicals are associated with adverse health effects including thyroid, liver and kidney damage and elevated blood cholesterol.³ However, research on the toxicity of these chemicals is on-going and it is not yet clear how much of a risk these chemicals pose to human health even at low levels or with chronic exposure.⁴ The risk of long-term health effects cannot be excluded. Individuals who work in specific industries, for example fire fighters, have been shown to have elevated levels of PFAS in their blood and tissues.^{5,6} The European Union has recently announced plans to ban the non-essential use of PFAS by 2030.⁷

JPAC does not currently have a specific deferral for exposure to PFAS as it is not yet clear what risk these chemicals pose to recipients of blood transfusion. No adverse effects to recipients have been reported in the literature.

JPAC will continue to monitor the position on PFAS with respect to new evidence or scientific developments regarding the potential threat to blood donation and keep the donation deferral policy under review.

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References

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- Emerging chemical risks in Europe PFAS <u>https://www.eea.europa.eu/publications/emerging-chemical-risks-in-europe</u>
- 3. Per and polyfluorylalkyl Substances (PFAS) and your health https://www.atsdr.cdc.gov/pfas/health-effects/index.html
- 4. Committee of Toxicity: Initial paper on further work on PFAS, updated 18th October 2022 https://cot.food.gov.uk/Initial%20paper%20on%20further%20work%20on%20PFAS
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- 6. Lucas, K., Gaines, L. G. T., Paris-Davila, T. & Nylander-French, L. A. Occupational exposure and serum levels of per- and polyfluoroalkyl substances (PFAS): A review. Am. J. Ind. Med. (2022) doi:10.1002/ajim.23454
- 7. The Great Detox: largest ever ban on toxic chemicals announced by EU https://eeb.org/the-great-detox-largest-ever-ban-of-toxic-chemicals-announced-by-eu/