

Recommendation to avoid the consumption of pike and large perch caught in Vanhankaupunginselkä

Fish in Helsinki's Vanhankaupunginselkä bay have been found to contain significant concentrations of PFAS. Because of this, the City of Helsinki recommends that especially those belonging to risk groups, meaning women who are pregnant or at their peak reproductive age, children and young people, should avoid consuming pike and large perch caught in the area. The recommendation will remain in effect until further notice.

Per- and polyfluoroalkyl substances, or PFAS, are substances widely used in the industrial sector and in cosmetics, technical clothing, frying pans and flame retardants, among others, that have accumulated everywhere in the environment and organisms all around the world. Exposure to PFAS occurs primarily through food. EU legislation imposes maximum limits for PFAS in fishery products and other categories of food products.

PFAS may have negative impacts on the development of fetuses and the development and health of small children. Exposure to PFAS may affect immune response, susceptibility to inflammation and reproductive health, for example.

Concentrations of harmful substances in fish investigated in 2023 and 2024

The recommendation is based on surveys commissioned by the City of Helsinki. A survey carried out in autumn 2023 involved catching several species of fish (perch, pike-perch, roach, whitefish, Baltic herring, pike) in key fishing areas in Vanhankaupunginselkä, Kruunuvuorenselkä, Seurasaareselkä and Vuosaari. The caught fish were analysed for concentrations of several harmful substances, such as mercury, dioxin, PCBs and PFAS. The highest concentrations of several of these substances were measured in fish caught in Vanhankaupunginselkä and Kruunuvuorenselkä. A large proportion of the commercial and recreational fishing carried out in Helsinki takes place in the Vanhankaupunginselkä area.

The PFOS (perfluorooctane sulfonate) and sum of PFAS concentrations measured in pike and large perch exceeded the limit value that EU food legislation has set for when these fish are used in the industrial manufacturing of foods intended for infants and small children. Moreover, the sum of PFAS concentrations in these fish were so high that even very low weekly consumption amounts would be enough to exceed the tolerable weekly intake for adults defined by the European Food Safety Authority. The concentrations of the other harmful substances measured did not exceed the limit values set in EU food legislation.

Based on the survey, a follow-up survey was carried out in spring 2024 to measure PFAS concentrations in pike in Vanhankaupunginselkä. Although PFOS concentrations in the analysed pike were found to be elevated, the concentrations were lower than those of the pike caught in Vanhankaupunginselkä for the autumn 2023 survey.

It is the responsibility of commercial fishers and food business operators selling fish to ensure that the batches of fish placed on the market do not exceed the limit values set in legislation.

Fish is recommended food when instructions for safe consumption are followed

Finnish fish is generally healthy and ecological food, and the recommendation is that people should eat various species of fish 2–3 times a week. According to national risk-benefit assessments, the health benefits of eating fish clearly outweigh its negative impacts at the population level. However, eating certain fish species may expose people belonging to risk groups to substances harmful to their health and development. Because of this, the Finnish Food Authority has made some exceptions to its general dietary advice on fish consumption: children under school age should eat pike or perch caught in the Baltic Sea only 1–2 times a month, while women

who are at their peak reproductive age, pregnant or breastfeeding should eat pike or perch caught in the Baltic Sea only 3–4 times a month. The City of Helsinki has issued a more detailed recommendation regarding pike and large perch caught in the Vanhankaupunginselkä area.

The City of Helsinki Environmental Services will continue monitoring fish in Vanhankaupunginselkä through further surveys. The fish consumption recommendations will be updated as necessary based on the results of further national and local surveys.

[General instructions for the safe use of fish](#) (Finnish Food Authority)

[PFAS](#) (page in Finnish) (Finnish Institute for Health

and Welfare)

[EU-Fish IV project](#)

[Kalojen haitta-ainepitoisuudet Helsingin edustan merialueella syksyllä 2023](#) (“Concentrations of harmful substances in fish in the sea area off Helsinki in autumn 2023”). Vatanen, S. & Norontaus, M. Kala- ja vesitutkimus Oy. (in Finnish)

[Hauen PFAS-pitoisuus Vanhankaupunginlahdella keväällä 2024](#) (“PFAS concentration in pike in Vanhankaupunginlahti in spring 2024”). Norontaus, M. & Hynninen, M. Kala- ja vesitutkimus Oy. (in Finnish)