

Research says *Vibrio* bacteria in seafood expected to increase

24 July 2024 | News

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The prevalence of *Vibrio* in seafood is expected to increase both globally and in Europe because of climate change, especially in low-salinity or brackish waters, according to the European Food Safety Authority's (EFSA) latest assessment. Additionally, resistance to last-resort antibiotics is increasingly found in some *Vibrio* species.

EFSA's scientists have assessed the public health aspects of *Vibrio* spp. related to the consumption of seafood. *Vibrios* are aquatic bacteria that can be found in seafood. Some strains are pathogenic and can cause gastroenteritis or severe infections. In a previous report (CLEFSA), EFSA's experts analysed the possible effects climate change could have on a wide range of food safety-related issues, including *Vibrio* bacteria in seafood.

Vibrios are waterborne bacteria that mainly live in marine coastal waters and brackish areas (where rivers meet the sea) and thrive in temperate and warm waters with moderate salinity. They can cause gastroenteritis or severe infections in humans consuming raw or undercooked seafood/shellfish, such as oysters. Contact with water containing *Vibrios* can also cause wound and ear infections.

Due to an increase in extreme weather events, like heatwaves, over the past 20 years, Europe has seen a rise in *Vibrio* infections. Warmer coastal waters have led to an expansion of areas where *Vibrio* bacteria can multiply, resulting in a higher risk of infections from consuming contaminated seafood. Regions particularly at risk include those with brackish or low-salinity waters (e.g., the Baltic Sea, Baltic and North Sea transitional waters, and the Black Sea) and coastal areas with large river inflows.

In EFSA's recent assessment, experts anticipate that the occurrence and levels of *Vibrio* in seafood will increase globally and in Europe, especially in low-salinity/brackish waters, due to the effects of climate change, such as coastal warming and extreme weather events like heatwaves.

To prevent and control *Vibrio* in seafood, maintaining the cold chain during processing, transportation, and storage is crucial, particularly for seafood intended to be consumed raw. Possible measures to reduce *Vibrio* are high-pressure irradiation and

(flash) freezing followed by long-term frozen storage. Depuration, which involves placing live molluscs in tanks with clean, circulating seawater to filter out microbes, is recommended under controlled conditions for live oyster consumption. Recommendations for consumers include ensuring proper handling and cooking of seafood and avoiding consumption of raw or undercooked products, especially for vulnerable individuals.