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Mini Review

What You Should Know About the Presence of Plastics in Seafood: Mini Review

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INTRODUCTION

Micro plastics, as these are little bits of plastic, can move through wastewater and into the ocean, where they may be consumed by animals. This can lead to the accumulation of micro plastics in animals, which then become food for humans. Each year, more than 8 million tonnes of plastic end up in our oceans, according to Plastic Oceans.

Micro plastics were identified in every sample examined in a 2020 investigation of microplastics in five distinct types of seafood, indicating that micro plastics indeed find their way into our food products. This could have an impact on human health. Keep reading to learn more about plastics in seafood, as well as the health hazards linked with them and the perils of ocean pollution [1,2].

What are Micro Plastics?

Bigger parts of plastic present various wellbeing chances for ocean life, as plants and creatures can become caught in them. Notwithstanding, lately, analysts have additionally turned their consideration toward microplastics. These are little bits of plastic under 5 mm in length. Their little size implies that they can travel effectively all through the sea. Creatures might confuse them with food or unintentionally burn-through them when eating other food. Bigger parts of plastic can become miniature plastics as they separate after some time and move around the sea. Micro plastics may also be used by some producers in their products. Cosmetic industries, for example, have been employing microscopic particles of plastic in beauty products for about 5 decades [3].

Because they are a less expensive alternative to neoplastic components, these little bits of plastic are commonly found in exfoliating products and toothpastes.

Why are there Plastics in Seafood?

Because of the large amount of microplastics in the water, they are very common in seafood. Micro plastics have been found in a wide range of creatures, as well as in oceans and rivers that feed into the oceans, according to research. For example, a research in 2020 discovered that 100 percent of two fish species in a river had micro plastics in their bodies. Plastics, particularly microplastics, have the ability to migrate up the food chain [4,5].

This happens when smaller animals consume plastics, then larger animals eat those creatures, and then larger animals eat those animals again, causing microplastic levels to rise. The top of the food chain, humans, may then consume plastic-contaminated animals.

Is Eating Plastic-Contaminated Seafood Harmful to Your Health?

The implications of eating plastic-contaminated seafood on human health are still unknown, according to researchers. Micro plastics' effects may take decades to fully comprehend, as some may be cumulative, manifesting only after several years. It's also difficult to conduct controlled research on the consequences of microplastics since people may be exposed to micro plastics from sources other than seafood.

Because the Food and Drug Administration (FDA) has yet to set a guideline or a limit on the ingestion of various micro plastic sources, the quantity of contamination in different types of seafood may vary.

Some Potential Effects of Eating Micro Plastic-Contaminated Seafood Include:

Oxidative stress: occurs when the body's antioxidants and free radicals are out of equilibrium. This could have far-reaching consequences for a person's health, including an increased chance of serious health problems including cancer and heart stroke.

Exposure to plastics may cause neurotoxicity, increasing the risk of brain health problems such as dementia.

Disruption of hormones: Plastic may be an endocrine disruptor, which means it can alter the behaviour of the endocrine system and the hormones it regulates. This has the potential to impact fertility, behaviour, and general health.

Thyroid damage: Micro plastics can harm the thyroid gland. The thyroid is a reliable source. The thyroid is responsible for a number of vital processes and is involved in the regulation of hormones that affect fertility.

Exposure to plastics has also been linked to an increased risk of cancer. This could occur as a result of the direct consequences

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of long-term plastic exposure or as a result of the other types of damage that plastics can cause. For instance, oxidative stress is a cancer risk factor.

Cultivated fish don't generally contain micro plastics, especially when the cultivating climate is very much controlled. Nonetheless, various investigations Trusted Source has discovered miniature plastics in cultivated fish.

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