Microplastics: origin, intake and effects on the body

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Abstract
One of the most insidious aspects of plastic pollution is the micro plastics generation, it's a problem that has been investigated recently and on which there isn't consolidated scientific literature. There isn't general agreement on the definition of microplastics [1] and there aren't official methods for the analysis of microplastics nor specific legal limits. Microplastic pollution can becomes from the dispersion of products containing microplastics, such as cosmetics [2] and toners, but also polymer pellets produced as "raw material" for the production of plastic products (primary microplastics). Another source of microplastics is the physical degradation of plastic products, which can be spontaneous, such as the degradation of plastic waste in the environment or may be accelerated by the use, such as the release of microplastics from mechanical processing of plastic or the washing of synthetic cloths [3]. There are two main ways of taking microplastics: by the gastrointestinal tract eating foods containing microplastics and by the respiratory system, breathing dust containing microplastics. The ingestion of microplastics may be linked to microplastics pollution in the environment, such as microplastics found in a fish [4], but also to the release of microplastics from the food packaging or from a plastic material during its production as milk industry. The inhalation of microplastics is continuous because due to the large number of plastic objects in our life, the microplastic powders have become ubiquitous [5] and in certain working environments the concentrations of microplastics can be higher. There aren't reliable data on the effects of microplastics on the human body [6], however microplastics can act as carriers for heavy metals and POPs in our body, with a toxic effect higher than that of a simple polymer.

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