

How Plastic Waste is Hurting Your Health



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If you are reading this blog on an electronic device, wearing clothing or footwear, or holding a “to go” drink in your hand, there is an extremely high probability that you are touching plastic right now. The invention of plastic revolutionized modern society and now is quite literally everywhere you look. But our addiction to plastic and the cheap single use packaging it creates now circles the planet and infiltrates our bodies.

The Problem of Plastic Waste

Plastic is found all over the planet and plastic waste is estimated to triple by 2040. Information showing how plastic moves and ends up in the world's most remote places is still developing. A 2020 study revealed that bigger plastic pieces break down until they are extremely small and then are transported long distances through soil and wind¹. These particles have been found in places such as in the desert sands of Iran², in freshly fallen snow in Antarctica³ and on top of Mount Everest⁴.

In the past 20 years, plastic has shown up on the inside of living beings, too. Scientists have found tiny particles of plastic, called microplastics, in the bodies of fish⁵, birds and sea turtles, within human blood⁶ and within the placenta⁷. This year, scientists identified microplastics deep within the lungs of living people for the first time.

Microplastics and Lung Health

There is some indication that breathing plastic particles and associated chemicals causes damage to the lungs, and scientists are working to learn what long term exposure could mean. Studies from the last few decades have consistently shown plastic particles found in the lung specimens of patients with cancer and chronic lung disease. Workers exposed to plastic fibers can have lung problems and reduced lung capacity, perhaps due to damage caused by inflammation⁸. Scientists also know that the chemicals that make up these plastics are toxic to humans at high enough concentrations. Scientists are still attempting to learn what long term exposure could mean for health—a process that could take a very long time⁹.

But people do not need to wait for evidence of lung health harm to affect policy changes before taking practical steps to avoid exposure and reduce consumption.

It is not realistic to avoid all plastic particles. While research continues, experts suggest people with a high risk of exposure, such as construction workers or people who work in factories where plastic is made or used, should wear a good mask, wash clothing after work, and generally avoid places where dust is visible. People can reduce their use of plastic by opting to use paper or cloth bags for groceries and by avoiding single use plastic straws, cups, and other food containers.

Policy in the International Community

Among the international community, policy action work is beginning as well. The United Nations Environment Assembly is attempting to mitigate potential impacts of plastic pollution through a new treaty. In passing a resolution called “End Plastic Pollution: Towards An Internationally Legally Binding Instrument,” over 190 nations agreed to start working together on the issue of plastic production and disposal.¹⁰ A working group will begin work later in 2022 to develop an international legally binding agreement by 2024. Using stakeholder meetings covering a range of countries and priorities, the document should address the full lifecycle of plastics and include information on the design of reusable and recyclable products. The resulting document would then open for signatures by member countries, with each country taking the same document back home for domestic-based implementation. In the United States, this would include passage of the principles by Congress and promulgation of laws and regulations within federal agencies to implement the articles.

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