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Microplastics

Overview

Microplastics, or MPs, are tiny plastic particles less than five millimeters long and have become one of Earth's most widespread pollutants.

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1440 Findings

Hours of research by our editors, distilled into minutes of clarity.

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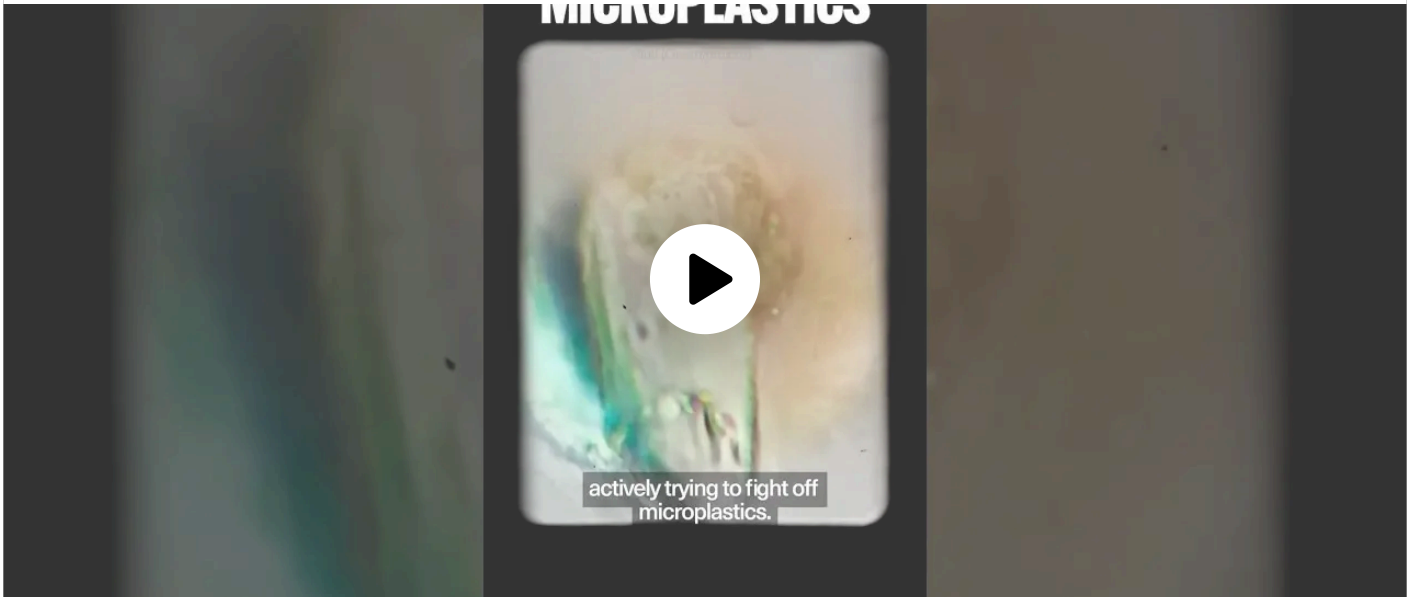
We're breathing microplastics

White blood cells can't fight off microplastics and that sparks inflammation and bigger health risks. They're in our food, water, even the rain. What does that mean for us?

1440 Original
1:09 • We're Breathing Microplastics



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Found via 1440

Microplastics are everywhere and pose growing risks to wildlife and ecosystems

These tiny plastic particles come from intentionally small items and the breakdown of larger plastic debris, ending up in soil, air, and water. A study of 37 US National Park beaches found microfibers at every site, making up 97% of all microplastic debris.

Found via NOAA

Plastic production starts with crude oil and ends with molded products via pellets

Polyethylene and other plastics are formed by combining ethylene and propylene, which are produced through refining crude oil. These plastics are formed into pellets called nurdles, which are melted and molded to manufacture countless products.

Factora

5:05 • Plastic production starts with crude oil and ends with molded products through pellets

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Mermaid tears are a lasting and hazardous form of ocean plastic pollution

Also known as nurdles, these tiny plastic pellets are extremely difficult to remove once spilled. Their chemical composition, which enhances absorption, causes them to contain higher concentrations of certain toxins than the surrounding environment.

Collapse Image

Found via Newsweek

Plastics don’t biodegrade because their chemical bonds are unnatural to microbes

Despite coming from petroleum, which itself comes from organic material, synthetic plastic was not mass-produced until the mid-20th century. Insufficient time has passed for microbes to develop the necessary enzymes to break it down naturally.

Found via Live Science

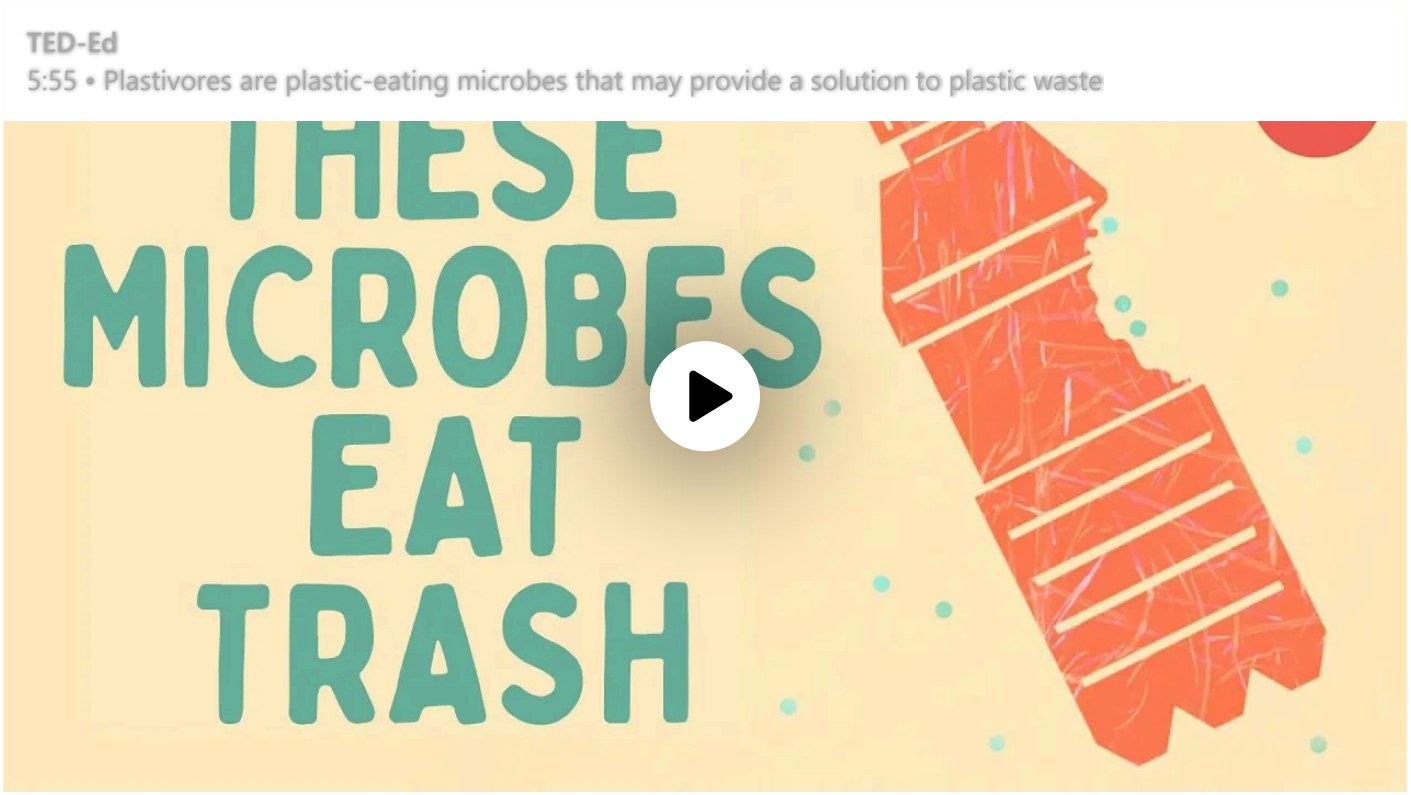
Washing clothes is a significant source of global microfiber pollution

Synthetic fabrics shed millions of plastic microfibers during washing, which pass through wastewater treatment and end up in oceans, soil, and food chains. A single wash load can release several million microfibers, but washing with cold water can reduce this.

Found via The Conversation

Plastivores are plastic-eating microbes that may provide a solution to plastic waste

Ideonella sakaiensis, a bacterium found in recycling plant sludge in 2016, was the first organism seen to possess enzymes that could break down PET, a type of plastic. Researchers continue to search and try to bioengineer microbes that can digest other plastic types.



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Found via TED-Ed

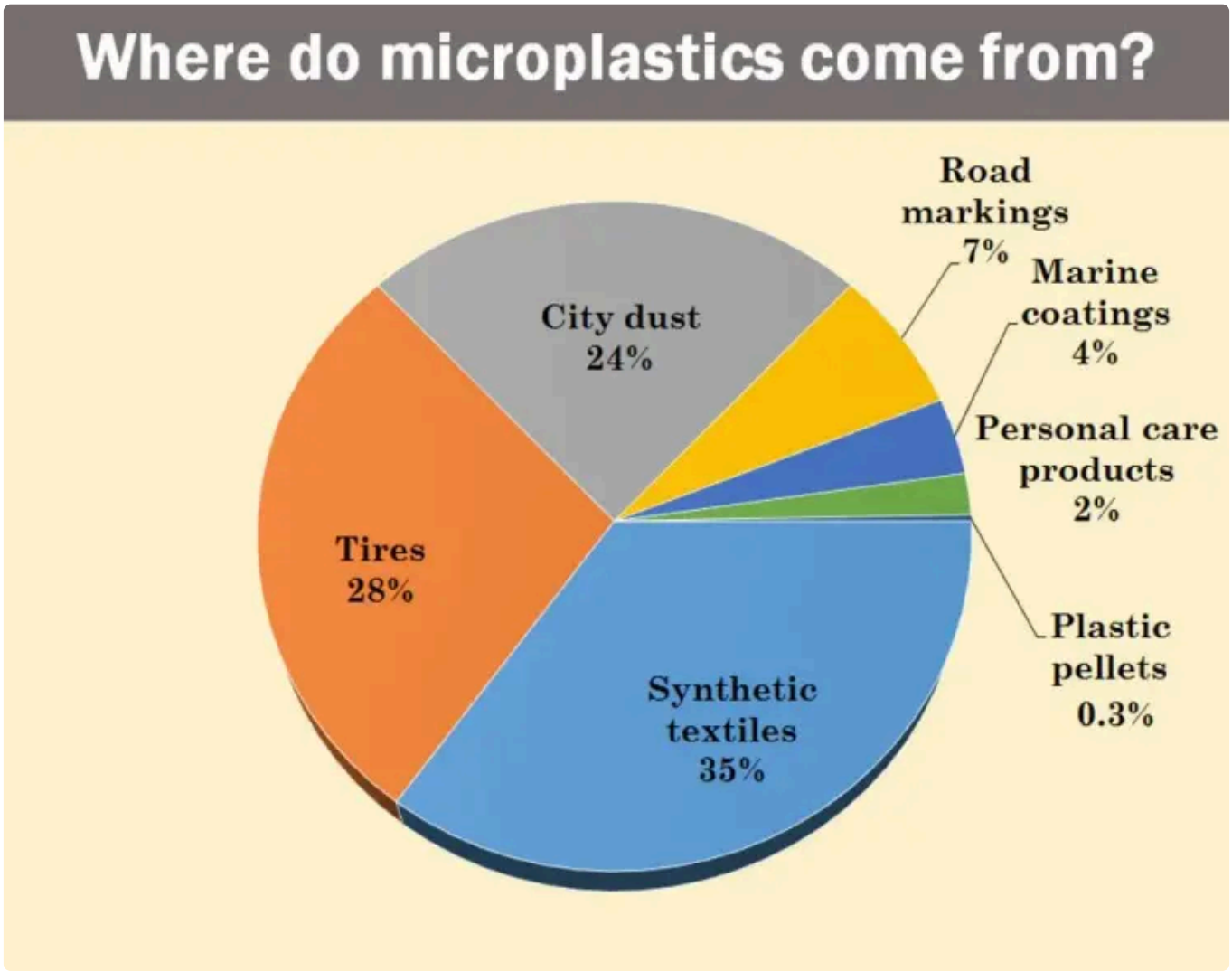
Microplastics from sewage sludge persist in farmland soil for decades

A 25-year study in Scotland found that sewage sludge used as fertilizer introduces various microplastics into soil, where they remain and degrade into smaller particles that worsen soil quality. Dyes found in microplastics may also be leaching into the environment, causing additional toxic effects.

Found via James Hutton Institute

Synthetic textiles and tires are the top sources of secondary ocean microplastics

These sources contribute more than 60% of the primary microplastics polluting the oceans, followed by city dust and road markings. City dust is made of pieces of building coatings, synthetic footwear, and other human-made objects that have broken off due to weathering and abrasion.



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Found via Horiba

Microplastic pollution extends from Earth’s deepest oceans to its highest peak

Researchers have found microplastic particles in snow samples taken from near the summit of Mount Everest. Microplastics have also been detected in the Mariana Trench, highlighting the widespread nature of this pollutant.

Found via The Guardian

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