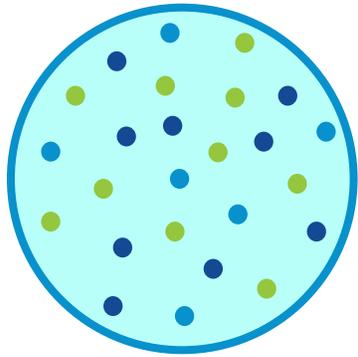


Microplastic Marine Debris



What are Microplastics?

Microplastics are small plastic pieces or fibers that are smaller than 5 mm in size. They come in many forms including beads, fragments, pellets, fibers, and more.



Primary microplastics are made to be small and can come in the form of resin pellets and beads. Products like resin pellets are melted and used to create larger plastic items, while microbeads may be found in personal care products, such as toothpaste, face washes, and cosmetics.

Secondary microplastics come from larger pieces of plastics, such as beverage bottles, bags, and toys. Sun, wind, and waves can cause these plastics to become brittle and fragment into smaller and smaller pieces in the environment, though they may never fully go away.



Plastic microfibers are synthetic fibers, such as polyester or nylon, which are used to make clothing, furnishings, and even fishing nets and lines. Through general wear or washing and drying, fibers may break apart from larger items, creating secondary microplastics.

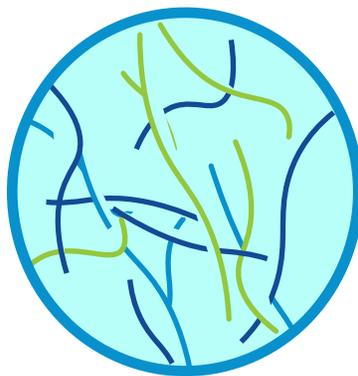


Photo: NOAA

Why are Microplastics a Problem?

Our ocean and Great Lakes are polluted with a wide variety of marine debris, ranging from large fishing nets and abandoned vessels, down to the smallest plastic particles that can't be seen with the naked eye. These microplastics are found throughout the ocean, from tropical waters, to polar ice, and even in fresh water and the air we breathe. Microplastics have also been found in tap and bottled water, sea salt, and other products we eat or drink.

Because they are so small, wildlife can mistake microplastics for food. Zooplankton, fish, mussels, and even whales have been found to ingest microplastics. The microplastics and chemicals in the plastics may impact the bodily functions of animals.

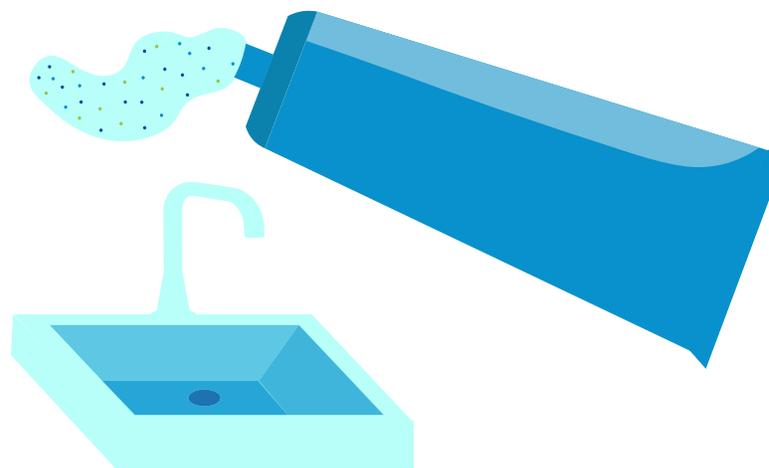
Microplastics can also carry harmful pollutants. They may absorb pollutants that are in the water around them, or leach chemicals that are added to plastics to make them colorful or flexible. Although wildlife may ingest or be exposed to these contaminants, more research is needed to understand how they might be affected.

How Do They Get Into the Environment?

Trash travels, and microplastics are no exception. Once in the ocean, it can be difficult to understand where a piece of marine debris comes from.

Microbeads, like those found in toothpastes and face washes, can wash down your drain and into a wastewater treatment plant. Here, some microplastics can end up in the sludge, while some can end up in the treated wastewater. Treated wastewater is discharged into the marine or freshwater environment or is used in agriculture to water crops.

Plastic pellets, like those used to produce larger plastic items, could directly enter the ocean and Great Lakes through a spill during shipping or at a manufacturing facility.



Plastic fragments come from larger plastic items. When they are littered or dumped, they can be moved by wind and storms, and travel directly from rivers and streams. Through exposure to winds, waves, and the sun, these larger plastics break into smaller and smaller pieces, creating microplastics.

When in use, fishing nets can shed **microfibers** directly into the environment. Our clothes also shed these fibers, releasing them in the wash or directly into the water and air around us during normal wear.

How YOU can help!

No matter where you live, you can help make a difference and stop microplastics and other marine debris from getting in the ocean and Great Lakes in the first place.

GET INVOLVED

and participate in local cleanups in your area.

REMEMBER

that our land and sea are connected.

DISPOSE OF WASTE PROPERLY

no matter where you are.

REDUCE

the amount of waste you produce.

REUSE

items when you can. Choose reusable items over disposable ones.

RECYCLE

as much as possible! Bottles, cans, cell phones, ink cartridges, and many other items can be recycled.



Photo: NOAA