MICROPLASTICS

EFFECTS ON HUMAN HEALTH

As it turns out, tiny pieces of plastic under 4.75mm in length can be found all around us. Called microplastics, these plastic particles originate from cosmetic products, the degradation of plastic products in the ocean, clothing, etc, – **they can either move through water filtration and enter bodies of water or become airborne particles capable of being inhaled**.

While **the full extent of the health impacts of microplastics are yet to be discovered**, scientists have been studying potential harmful effects for both animals and humans to ingest such particles. With the number of microplastics increasing at a rapid rate, however, more research needs to be done fast.

QUICK FACTS

It is estimated that there are between **15 and 51 trillion individual pieces of microplastic in the world's oceans**. That amounts to around 93,000 to 236,000 tonnes of plastic in total!

Over 74,000 microplastic particles are ingested by Americans each year. For context, that's like ingesting a credit card's worth of plastic per week through your food, drinks, and the air you breathe.

75% of microplastics in our oceans come from the breakdown of large plastic products such as fishing nets or plastic bottles. UV rays from the sun help degrade the plastic until it becomes tiny particles.

Overall, it is estimated that **around 20,000 pieces of microplastics are inhaled by a single person each year**. Yes, studies have proven that microplastics are unforunately airborne.

Microplastic particles contain chemicals that might impact our health – while some scientists claim they can cause weakened immune systems, cancer, etc., **more research needs to be done.**

People who drink bottled water ingest an additional 90,000 microplastics each year (compared to those who don't drink bottled water), while those who drink tap water ingest an additional 4,000.

NEW SOLUTIONS

WASTEWATER TREATMENT

Researchers have been developing various filtration technologies to remove microplastics from drinking water. Results have been promising: a membrane bioreactor removed 99.9% of microplastics in preliminary processing.

BIODEGRADABLE PLASTICS

While biodegradable plastics sound promising, there's been studies showing how they still produce microplastics. Researchers have been working to develop better versions of this type of plastic that are actually capable of biodegrading.

BETTER RECYCLING SYSTEMS

Ultimately, plastic products are ending up in our oceans as a result of poor waste management. If we are able to divert the flow of plastic waste towards landfills or recycling centres instead, there will be less microplastics according to Scientific American.

DESIGNED BY THE PLASTIC SHIFT

To learn more about microplastics, visit www.theplasticshift.com

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