

## Microplastics - What are we unintentionally washing down our plugholes?

(Jo Kidd)

Plastic is literally killing our planet – it does not biodegrade – that means it does not breakdown but stays in the environment forever, gradually degrading into smaller and smaller pieces) and emitting toxic chemicals into the soil, water, air, wildlife and into us!



An estimated eight million tonnes of plastic goes into our seas every year – and microbeads in household products including face scrubs, toothpastes and detergents are a part of this problem. One shower can send 100,000 plastic particles down the plughole!

Large pieces of plastic can strangle animals such as seals and seabirds, while smaller pieces are ingested by shellfish and fish and then fed up the food chain, all the way to humans (a plate of six oysters can contain up to 50 particles of plastic!) This is a problem for humans due to the chemicals contained within plastics, as well as the pollutants that plastic attract once they are in the marine environment.

All our seas are affected but most of this rubbish accumulates in five large ocean gyres (circular currents) that churn up plastics in a set area. Each of the major oceans have plastic-filled gyres, including the well-known 'great Pacific garbage patch' that covers an area bigger than Texas. The areas have been described more accurately as "plastic soup" since much of it is hardly visible to the naked eye.

Scientists estimate that if we continue to pollute the rivers and oceans at the rate we currently are, by 2048 there will be more plastic in our oceans than fish 😞

Microplastics include microbeads, microfibres, nanoparticles and debris broken off larger pieces of plastic waste. Microplastics are plastic particles smaller than 5mm. They are used in many cosmetic and personal care products and synthetic clothes.

Other microplastics result from the breakup of larger plastic objects in the oceans. It is estimated that a total of 15-51 trillion microplastic particles have accumulated in our oceans. Every minute, the equivalent of one full rubbish truck of plastic waste is dumped in the sea. That is 8 million tonnes per year!

Microbeads, hardly visible to the naked eye, flow straight from the bathroom drain into the sewer system. Wastewater treatment plants are not designed to filter out these tiny particles. Sea creatures absorb or eat them and then they are passed along the marine food chain. Since humans are ultimately at the top of this food chain, we are also absorbing microplastic from the food we eat.

Probably even more pervasive than microbeads, microfibres in synthetic materials are poisoning our oceans on a massive scale. Studies have found that, on average, synthetic fleece jackets release 1.7 grams of microfibres each wash. It seems that older clothes shed almost twice as many fibres as new ones.

Like microbeads, the fibres' size also allows them to be readily consumed by fish and other wildlife. These plastic fibers have the potential to bioaccumulate, concentrating toxins in the bodies of larger animals, including humans, higher up the food chain.

### **The Good News 😊**

Environmental groups have led a campaign to ban microbeads and other microplastics. The UK government recently announced the strongest ban on microbeads in the world to date. The ban also covers so-called “biodegradable” plastics (which need industrial-scale composting facilities to get the plastic extremely hot and don't biodegrade in the sea anyway) and that all personal care and cosmetic products containing microbeads will be off the shelves by 30 June 2018 – one day before the same happens in the US!

### **What else can we do?**

We, as consumers, have a lot of power. We can...

- ✓ Put pressure on the cosmetic companies which continue to use microplastics in their products. Keep an eye out for campaigns and petitions.

- ✓ Only buy products with the 'zero plastic inside' logo. For example, LUSH, Weleda, Green People and Neal's Yard.
- ✓ Let our skin and hair breathe - simply use less products on them.
- ✓ Stop buying (and washing) fleeces and other synthetic materials (even from recycled plastic) and stick to organic cotton, linen, hemp, bamboo and other ethical and cruelty-free materials.
- ✓ Minimise the amount of plastic we consume; refuse or hand back plastic packaging from supermarkets, always take our re-useable bags shopping, buy toys made from natural materials rather than plastic ones, always re-use or recycle the plastic that we do use.
- ✓ Stop eating fish and shellfish, for the sake of our own health and to help reverse the depletion of marine life.



**Useful links:**

[www.plasticsoupfoundation.org/en](http://www.plasticsoupfoundation.org/en)

[www.greenpeace.org.uk/microbeads-we-won](http://www.greenpeace.org.uk/microbeads-we-won)

[www.beatthemicrobead.org](http://www.beatthemicrobead.org)

[www.storyofstuff.org/plastic-microbeads-ban-the-bead](http://www.storyofstuff.org/plastic-microbeads-ban-the-bead)

[www.facebook.com/HandBackPlasticPackaging](https://www.facebook.com/HandBackPlasticPackaging)

Each month I write about different aspects of sustainable living. Please do get in touch with your questions and ideas ☺ Email: [jo.kidd@abbotsmillproject.co.uk](mailto:jo.kidd@abbotsmillproject.co.uk)