

# The Plastic diet

Plastic. Plastic bottles, Plastics Bags, Plastic cups, Plastic straws, Plastic wrap, Plastic containers, Plastic toys.... The list goes on. In 2018 plastic is everywhere- polluting our world more and more each day. New scientific evidence has revealed that not only have we polluted our planet with this polymeric material, we have polluted our own bodies.

Microplastics are exactly as the name suggests : small pieces of plastic ranging from <5 mm in diameter. These tiny pieces of rubbish are created either primarily, as small beads used by manufacturers and producers, or secondarily, when tiny fragments of larger plastic products breakdown in the environment. It is both categories of microplastics contributing to the 9.1 billion tonnes of plastic, humans have created since 1907 and the 300 million tonnes we are producing each year.



Although the large quantities of microplastics are extremely concerning, it is the damage and pollution of human bodies that is the most alarming. A study by UK researchers concluded the average person consumes 70,000 pieces of microplastic each year resulting in 191 pieces eaten every day. This build up of this plastic in our bodies can start to have major health impacts. Scientists have only just begun to look into the effects but evidence points to microplastic being carcinogenic ( a cancer causing substance). Consumption is also linked to infertility, allergies, autoimmune disease overall, reduced life expectancy. Plastic is not a natural substance so our bodies are unable to process it correctly.

It seems strange that we are very hooked on the latest dietary trends; vegetarian, veganism, paleo, low-fat, low-carb, gluten free or raw. Most of us want to be putting the correct foods into our bodies. But does it matter if you are eating the best foods if you are consuming 191 pieces of microplastic every day??

Microplastics are from our waste. It our plastic pollution that produces these tiny fragments. Every time we do the laundry we contribute. Each wash releases millions of tiny synthetic fibres into the water which makes its way undetected into treatment plants and straight into the sea. Our plastic bottles disintegrate under the sun, breaking up into these tiny pieces and companies are careless with their plastic beads causing them to blow, spill or get dumped into our environment

Once the microplastics have reached our sea, and our air, they are quickly on their way to ending up in our food, drinking water and animals. Many of the microplastics in the sea are consumed by our marine life. Being so small and transparent they can be identical to plankton and become a food source for fish. After entering the food chain, they work their way up, until they become present in the majority of marine life. This is one of the ways that they end up on our plates. Microplastics presence in the air can also result in around 40 pieces of plastics dropping onto your plate while you are eating your meal.

We are consuming 191 pieces of microplastic every day because they have become indented into our food chain. So we are constantly ingesting our own pollution.

Microplastics have also found their way into our source of life. Water. In each bottle of plastic water you can find up to 325 particles every litre. [Ref](#) A recent study conducted by University of Minnesota School of Public Health shows that 83% of random water samples collected worldwide were contaminated with microplastics.

Microplastics are a problem throughout the whole entire world but in the small coastal town on the East Coast of Gisborne, the locals could be very affected. Health effects on people are a major issue but in this seaside town, having our beautiful beaches polluted is the major impact. Our tourism is based around our incredible natural beauty but if we have dead marine life washed up on the beaches then we will shock our visitors instead of impressing them. Gisborne is also a big supplier of food such as fish to the majority of New Zealand so if our produce is not up to scratch, our economy will be greatly affected. In a town that relies greatly on the environment, it will be awful for the people in our community to feel the results of this massive pollution problem.

So what's the solution to microplastics? What can we do to stop ourselves consuming these small particles every single day?

Kirsty Gaddum, the enviroschool facilitator for the Gisborne District Council says the answer begins in our own community and homes. "Think globally act locally" urges Kirsty. This quote persuades us to consider the health of our planet by taking action in our own towns and cities. We need to begin movements in our own lives and start to change our plastics habits. It's the simple and everyday changes that you make to reduce your rubbish that can really make a difference. Bringing your own bag and using your own bottle, packaging in paper or beeswax wrap and using metal straws. "We have to remember that we are the consumers, so if we stop buying a specific product, then the company will make less of it" It really is up to each of us to make conscientious decisions towards our lifestyle as this will influence change. Kirsty reminds me. "Have that positive attitude and believe that every tiny change can make an important difference because it does"

Microplastics- pieces of plastic around the same size as our pupils that are taking over the world. These pollutants are not only going to have a dramatically increasing effect on communities such as Gisborne, but communities all over the world. But, there is still hope. Humans are the creator but we can also fix this.. It is up to each and every one of us to act on the solution to this problem and change our plastic habits. We desperately need to rethink the

place that plastic holds in our lives before it starts completely changing our world. Start thinking globally and acting locally.

Reference List



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