

## Chews a better future

In today's world, there are many sweet treats we allow ourselves to purchase to satisfy our need for sugar. One of the seemingly least problematic of the options in the confectionary aisle is chewing gum. Chewing gum is said to have many benefits. It freshens your breath and acts in aiding concentration, but the sugar-free version also has the stamp of approval for removing plaque by dentists and is known to be used in dieting because it's an appetite suppressor. With all these advantages, why wouldn't we stop chewing the stuff? As the world's most common habit, it's unlikely you haven't chewed, or seen someone chewing the substance. The industry itself is said to be worth around fifty billion New Zealand dollars in 2019, with a supposed 374 billion pieces being sold and chewed per year. I bet we all remember the horrific feeling of touching gum under a school desk or having to peel a gross wad of old gum off our shoes after walking through the city. Like everything else, chewing gum has a darker side.

Chewing gum is the world's second most common form of litter worldwide. Statistics claim that



between 80-90% of chewing gum is disposed of improperly and everywhere we go, colourful dots of it can be seen plastered on sidewalk tiles and other public objects. There's even a tourist attraction in downtown Seattle named 'The Gum Wall' which boasts millions of pieces of gum stuck to the wall by visitors. It is estimated that 92% of Britain's urban paving stones have gum stuck to them, and in an inspection taken last year of the amount of gum that can be found under

desks and chairs in a typical classroom at my school, 377 pieces were found. Although it is a sight that distracts from the idea of public cleanliness, gum is practically harmless, right? Wrong. Gum is a bigger issue than we think, and we're surrounded by it.

Gum, in theory, should be safe to consume. Originally, it was. There's evidence to suggest that many old civilizations such as Aztecs, native American Indians, northern Europeans, and Mayans chewed gum predecessor to our modern version. It is believed they may have used it as a form of entertainment, as a cure for ailments and as a way to suppress hunger. Each different group used a varied form of tree sap; the Aztecs and Mayans both using chicle from the sapodilla tree and the native American Indians using spruce tree sap. European settlers adopted the practice, which was said to have a flavour that can be related to the modern-day caramel. It was around World War 2 when gum sales surged because of its appetite-suppressing qualities and its usefulness in soldier kits, that gum became 80% plastic. A fact that is hidden under the ingredient 'Gum Base.'

Plastic, as we all already know, is a huge environmental issue and we can't escape it. Gum base is made of mostly synthetic plastics and rubber so it doesn't dissolve. Leaving you with a distasteful lump of gum sitting in your mouth. Which you can choose to swallow, dispose of by placing in a bin, or spit out onto the concrete. This is the most important issue associated with gum. This is because once the chewing gum has been stuck onto the pavement, it won't biodegrade or dissolve with water, so it will remain there until it can be washed off with

high-pressure water and chemicals. Not only is this an economic problem, with an estimated cost of up to 3NZD to remove a square metre of gum off the streets of London in 2017 and the UK being said to spend roughly three-hundred million each year to deal with this growing issue, but an eco-friendly matter as well. When the gum gets 'washed off,' the mixture of imperishable gum, chemicals, and water flows into the drainpipe and waterways and won't break-down with the environment. So the gum pieces are likely to be ingested by marine animals, eventually collecting enough in their stomachs to produce harmful toxins. There have also been several cases where birds have died as a result of swallowing littered gum.



The other plastic issue that chewing gum presents is the gum packaging. Even if you're holding a reusable coffee cup in hand and taking material shopping bags to your supermarket shops, you'll still be unable to avoid plastic. Although there have been fewer studies on the harm that gum-packaging presents, it's obvious that it's still an issue we should take into consideration. There are many forms of packaging the gum can come in. Each with their own level of sustainability. Examples are gumballs, 'Hubba Bubbas' infamous rolled form, tubs, and individually wrapped sticks.

So what can we do to be more sustainable when it comes to gum? The most simple of the options is to stop chewing it. Gum isn't necessary in day-to-day life, especially with so many better alternatives out there. Mints can be used to freshen breath on-the-go and don't contain any plastic. They also typically don't come with all the extra packaging gum does. However, if

you're still reluctant to give up your go-to sweet, there are things you can do to be more environmentally friendly.

*GumdropLTD* is a company that recycles gum into usable products which they collect in small pink bins. The next best option when disposing of gum is to wrap it in paper and throw it into the rubbish bin but definitely not onto the pavement.

There are also natural alternatives. The original form of chicle gum is still around today. At one point, New Zealand's leading gum brand Mars Wrigley patented a natural gum that was rejected by customers because it wasn't as chewy for



as long as their other gums. Although less accessible overall, it can be ordered online for a more sustainable option. Examples include *SimplyGum* and the mostly natural *GleeGum*.

After reading this article, there's no excuse for chewing gum in an unsustainable manner.

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### **Links**

- Fig 1. -  
<https://www.bradfordzone.co.uk/campaign-to-tackle-the-problem-of-chewing-gum-on-pavements-and-roads-to-launch-tomorrow/>
- Fig 2. -  
<https://www.cleansafeservices.co.uk/specialist-cleaning/chewing-gum-removal/>
- Fig 3. -  
<https://www.confectionerynews.com/Article/2018/03/12/British-designer-turns-sticky-chewing-gum-waste-into-recycled-products>
- <https://www.custommade.com/blog/sustainable-gum/>
- <https://www.confectionerynews.com/Article/2015/08/05/Gum-litter-Gumipod-develops-portable-gum-disposal-pack>
- <https://www.history.com/news/chew-on-this-the-history-of-gum>
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