

Nearly a quarter of people in the UK flush wet wipes down the toilet: Here's why they shouldn't

April 11 2023, by Charlotte Lloyd



Credit: AI-generated image ([disclaimer](#))

Whether you're cleaning your house, your car or your child, there are a variety of wet wipes manufactured for the job. Wet wipes are small, lightweight and extremely convenient. They have become a staple in most of our lives, particularly so during and since the COVID-19

pandemic.

But according to Water UK, an organization representing the [water industry](#), flushing wet wipes down the toilet is responsible for [93% of sewer blockages](#) and costs around £100 million each year to sort out. And the majority of these wipes, about 90%, contain plastic.

[Water UK](#) also found that 22% of people admit to flushing wipes down the toilet, even though most of them knew they posed a hazard. And it's estimated that [300,000](#) sewer blockages occur every year because of "fatbergs," with wet wipes one of the main causes.

But it seems wet wipes [could soon be banned](#) in England—well, at least the ones that contain plastic—as the government has said it will launch a public consultation on wet wipes in response to mounting concerns about [water pollution](#) and blockages. This follows pledges made by [major retailers](#), including Boots and Tesco, to discontinue the sale of such products.

[Market projections](#) show that 1.63 million tons of material will be produced in 2023 for wet wipes globally—an industry worth approximately \$2.84 billion (£2.04 billion). Though these figures are likely to be on the conservative side as manufacturers increased the production of disinfecting wipes in 2020 [during the pandemic](#)—and have remained at the same level since.

Despite the popularity and wide use of wet wipes, not a lot is known about their [environmental footprint](#). This is because manufacturers are not obliged to state what the wipes are made from on the packaging, only the intentionally added ingredients. This creates a challenge for both scientists and consumers alike.

What we know

Wet wipes are made from non-woven fibers that are fused together either mechanically or with the aid of chemicals or heat. The individual fibers can be made from either natural (regenerated cellulose or wood pulp) or petroleum-based (plastic) materials, including polyester and polypropylene.

Most wet wipes are a mixture of natural and synthetic fibers—and the majority contain plastic. As well as the fibers, wet wipes also contain chemicals, including cleaning or disinfecting agents which are impregnated into the material.



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Some wipes are designed to be "flushable" and contain [chemical binding](#)

[agents](#) that are designed to release the fibers of the wipe when they are exposed to water. This means that if wipes are not disposed of correctly, they can create both a plastic and a chemical hazard to the environment.

It's well known that plastic breaks down extremely slowly and persists for centuries [in landfill](#). And if plastic-containing wipes are released into the environment—either through littering or via the sewerage system—they can pose a number of hazards.

The plastic problem

When wet wipes reach the environment—including soil, rivers and the ocean—they generate microplastic pollution in the form of microfibers. Microfibers are one of the most prevalent types of plastic pollution in the [aquatic environment](#) and affect ecosystems as well as potentially human health through their introduction into the [food chain](#).

The problem has been exacerbated by these "flushable" wipes. [One study](#) identified seven different types of plastics as potential components of flushable wipes—meaning that they still risk being a source of microplastic pollution. [Recent work](#) has confirmed that wet wipes (along with sanitary products) are an underestimated source of white microfibers found in the marine environment.

Data on the environmental impact of the associated chemicals is lacking, but this is something [my research group](#) is currently working on. What is known though is that plastics have the ability to absorb other contaminants such as [metals](#) and [pesticides](#) as well as [pathogens](#). And this provides a way for pollution to be [transported](#) large distances through the environment.

Driven by [environmental concerns](#) as well as impending legislation, many [plastic](#)-free wipe products are now available or being developed.

But even products made from natural fibers can still pose a problem to sewerage systems and so safe disposal—in a bin—is key.

The [scientific evidence](#) surrounding the environmental effects of bio-based plastics (plastics made from non-petroleum sources such as corn or potato starch) is also lacking, so caution is needed when thinking about simply switching from petroleum-based to bio-based plastics.

With this in mind, reusable washable products are a great alternative to disposables and have a much smaller environmental footprint. They are particularly handy around the home when washing is convenient.

That said, there will remain a market for disposables, but manufacturers should have to clearly label what the wipes are made from so that consumers can make a more informed choice.

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