

Wet Wipes Increase Your Child's Risk of Allergies

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STORY AT-A-GLANCE

- > Researchers warn the routine use of wet wipes appears to be a significant contributor to the rise in childhood food allergies
- > Chemicals found in wet wipes can break down the top layer of skin, allowing the skin to absorb allergens that can trigger allergic reactions, especially if your child carries genes that alter their skin absorbency
- > Wet wipes have also become notorious for clogging up sewer lines, costing municipalities millions each year. The wipes are also entering the environment, where they pose risks to wildlife similar to that of plastic pollution
- > To clean your baby, mild soap and lukewarm water are all that's needed. Use a soft cloth and a light touch to avoid skin abrasions. If you have to use a wet wipe, be sure to wash off any residue with water before putting on another diaper
- > For adults, using a bidet is as refreshing as a wet wipe and gentler than paper, and dramatically reduces the potential for fecal contamination of your hands

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Are you in the habit of using wet wipes on yourself or your baby? If so, your quest for clean may be doing more harm than good, and in more ways than one. With an infusion of aloe and fragrance, some people have made a complete switch from toilet paper to wet wipes, not realizing that the chemicals used, such as preservatives and fragrances, can cause painful skin irritation around your privates and other health problems.¹

Wet wipes are also clogging sewers, necessitating costly repairs. Many wipes are now advertised as biodegradable and flushable, making them all the more convenient to use on the toilet. However, the congealed lumps of fat-soaked sanitary items known as "fatbergs" being pulled from residential and city sewer lines make it clear they're nowhere near as degradable as claimed.

Wet Wipes Promote Food Allergies in Babies

Most recently, researchers discovered there's a link between skin damage and food intolerance,^{2,3,4} warning the routine use of wet wipes appears to be a significant contributor to the rise in childhood allergies. Proper cleansing, they say, requires nothing more than plain soap and water. The chemicals found in wet wipes can break down the top layer of skin, allowing the skin to absorb allergens — a chain of events that augments your child's risk for allergic reactions.

Genetic predisposition to skin barrier dysfunctions also plays a role, raising your risk of allergies, but even if your child does not have a genetic predisposition to skin barrier damage, the routine use of wet wipes can cause the skin barrier to break down, allowing allergens to enter.

The U.K. struggles with the highest rates of allergic conditions in the world. More than 1 in 5 Britons has some form of allergy, and hospital admissions for anaphylaxis has increased by more than 615% in the last 26 years. An estimated 8% of British children are allergic to one or more foods, and one-third of those also have eczema.

In the U.S., an estimated 4% to 6% of children are affected by food allergies, and prevalence increased 18% in the two decades between 1997 and 2007.⁵

Food Allergies Are Preceded by Skin Barrier Dysfunction

In this study, they discovered that in order for a food allergy to develop, it had to be preceded by skin barrier dysfunction. Neonatal mice genetically predisposed to skin barrier defects were first exposed to sodium lauryl sulphate (SLS), a soap commonly found in wet wipes, followed by three or four topical food and dust allergens for 40 minutes over the course of two weeks.

After that, they were given egg or peanut orally, which resulted in allergic rash at the site of skin exposure, allergic reactions in their intestines and signs of body-wide anaphylaxis. Simply exposing the skin to peanuts, without the SLS, did not result in allergic reactions. As reported by Northwestern University:⁶

"The factors contributing to food allergy include the genetics that alter skin absorbency, use of infant cleansing wipes that leave soap on the skin, skin exposure to allergens in dust and skin exposure to food from those providing infant care. Food allergy is triggered when these factors occur together."

To avoid this, lead author Joan Cook-Mills, a professor at Northwestern University, recommends reducing your baby's skin exposure to allergens by washing your hands before handling your child, limiting the use of wet wipes (as they leave soap on the skin that damages the skin barrier) and simply rinsing your baby's bottom with soap and water.

Wet Wipes Cause Costly Sewer Clogs

Wet wipes have also become notorious for clogging up sewer lines, costing municipalities millions each year. The wipes, classified as nonwoven material,⁷ are typically made from a combination of wood pulp, polyester, viscose and/or cotton. These raw materials are tangled under high pressure water, heat or air and then saturated with chemicals to clean, moisturize, scent and seal the product.⁸

It is this tangling process that prevents degradation as they enter the sewer system. Many wet wipes also contain flexible plastics that are not biodegradable. When flushed, the wipes move from your toilet, through your sewer and into the city sewer system.

One of the key tests to marketing a wipe as "flushable" is that at least 25% of the wipe will break into smaller pieces within three hours while being agitated in water.⁹ However, as noted by city officials in the District of Columbia – just one of the many cities having

sewer problems from wipes — the wipe can reach a pump within just a couple of minutes, not three hours.

Most sewers also primarily use gravity, so the wipes are not being agitated within the sewer as they are in the test.¹⁰ Four years ago, commissioner of the New York City Department of Environmental Protection, Carter Strickland, told New York Magazine that wet wipes cost the city millions of dollars, not including broken equipment and staff overtime. An office aide estimated that cost to be close to \$18 million per year.¹¹

In 2013, an enormous 15-ton glob of congealed fats and wipes the size of a city bus damaged sewer pipes in London.¹² It took sewer workers three weeks to clear the area and prevent massive flooding. Officials said they have to clear nearly 40,000 blockages a year caused by flushed wet wipes.¹³ Gordon Hailwood, team leader of the sewer crew who cleared this fatberg, said:¹⁴

"The sewer was almost completely clogged. If we hadn't discovered it in time, raw sewage could have started spurting out of manholes across the whole of Kingston. It was so big it damaged the sewer and repairs will take up to six weeks."

Wet wipes were labeled "the biggest villain of 2015" by The Guardian for the environmental and sewer problems they cause across the world.¹⁵ In an attempt to reduce pipe damage, Beloit, Wisconsin, created a "No Wipes Down the Pipes" campaign, citing damage to their sewers.¹⁶

A number of lawsuits have also been filed against manufacturers of wet wipes, claiming fraudulent promotion of flushable wipes has damaged city sewers.¹⁷ In a test conducted in 2013, none of the four leading wipes passed the agitation test set by the industry to determine flushability of the product.¹⁸

Wet Wipes Damage Ecosystem

The damage also extends to the environment. Wipes don't appear to be degraded or sifted from sewage before they make their way onto the beaches of the U.K.¹⁹ The

number of wipes found on beaches more than doubled between 2013 and 2014. Blockages also affect the environment when they cause overflow of raw sewage into rivers. Charlotte Coombes, conservation officer with the Marine Conservation Society, commented on the situation, saying:²⁰

"This move towards convenience, the move towards items to use once and throw away, it's much easier for people to do that. What we are doing is not just using a lot more resources, we are creating a lot more litter that can end up in the environment. Our sewerage systems weren't built to cope with wet wipes. When flushed, they don't disintegrate like toilet paper, and they typically contain plastic so once they reach the sea, they last for a very long time."

Once in the environment, the wipes cause damage very similar to that of plastic pollution. Turtles and other marine life often mistake plastic bags and bits of wipes for food, and once ingested, the animal dies of starvation as the wipes cannot move through their digestive system.²¹

What's the Best Way to Clean Your Toosh?

When it comes to cleaning your baby, a mild soap and lukewarm water are all that's needed. Use a soft cloth and a light touch to avoid skin abrasions. If in a pinch you need to use a wet wipe, be sure to wash off any residue with water before putting on another diaper. The same advice applies to adults as well. Avoid wet wipes and go easy when wiping with paper to avoid microcuts that can lead to irritation and painful rashes.

And, while men can wipe in any direction without cause for concern, women should take care to wipe from front to back to reduce their risk of urinary tract infections. If you like the idea of wet wipes but not the idea of causing environmental problems and damage to wastewater treatment facilities, a bidet is an excellent alternative.

For those who aren't familiar with how they work, a bidet looks similar to a toilet but is designed to help you freshen up after toilet use. Most modern bidets have one or more jets that spray water, allowing you to straddle the device for a cleansing far superior to

toilet paper. While far more common in European countries, they've been growing in popularity in North America in recent years according to Kohler, the largest manufacturer of bidets in the U.S.²²

Using a bidet is as refreshing as a wet wipe and gentler than paper, and dramatically reduces the potential for fecal contamination of your hands. Although you could spend a couple of thousand dollars to have a free-standing bidet installed in your home, there are also bidet seats which are placed on top of a regular toilet seat that cost far less.

A bidet seat can quickly pay for itself with the money saved on toilet paper, especially if you just wipe yourself dry with a small reusable hand towel. The seats are easy to install, as no plumber is required. The Spruce²³ recently published a review of its top eight picks for best bidet toilet seats, starting with the BioBidet, priced below \$140. The least expensive model costs just \$25.

Considering the environmental impact of both wet wipes and toilet paper, a bidet is by far the most environmentally friendly choice. From a health standpoint, it's also the cleanest and most sensible. Once you get used to it, you'll no doubt be hard-pressed to go back to toilet paper or wipes ever again.

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