

What
you
wear
matters



Plant Not Plastic: Fact Sheet



We make countless choices every day for our health — such as turning over a box in the grocery aisle to read the ingredients. We scan for artificial ingredients and words we can't pronounce. We do this because we want to make healthier choices for ourselves and our families. We understand that what we put into our bodies has a direct impact on our well-being.

But what if one of the most important labels isn't in your pantry, but in your closet? The tag on your shirt, your children's pajamas, or the blanket you sleep under holds key information about the materials you are bringing into your home and putting against yours, and your family's skin. People may not realize that a choice is also being made in the clothing aisle: the choice between clothing made from a plant and clothing made from plastic.



The hidden plastic in your closet

Most people are surprised to learn that the majority of clothing today is made from synthetic materials — essentially, forms of plastic. In fact, over two-thirds (67 percent) of all fibers used in textiles worldwide are synthetic, with polyester alone accounting for 57 percent of global fiber production. Polyester, along with other synthetics like nylon and acrylic, is derived from fossil fuels, making it a form of plastic that we wear every day. Natural fibers such as cotton make up only about 20 percent of the market.¹ Of the remaining share, 5 percent comes from other natural fibers like hemp and flax, 6 percent from manmade cellulosic fibers, and just 1 percent from animal fibers like wool and silk.¹

Synthetic fabrics have become so commonplace that many of us rarely stop to consider what our clothes are actually made of. When shopping, we often focus on style, color, or fit, overlooking the material composition listed on the tag. From athletic wear and business attire to pajamas and everyday t-shirts, synthetic clothing has become woven into nearly every aspect of our lives.

However, this convenience comes with a hidden cost. Every time we wear, move in, or wash synthetic garments, they shed tiny, invisible plastic particles known as microplastics. These microplastics — defined as plastic fragments less than five millimeters long — are released into the environment such as the air we breathe and make their way to the water we use, creating a constant stream of pollution



in our most personal spaces: our homes, our workplaces, and even directly onto our skin and our bodies.

The dominance of synthetic fibers means that plastic is no longer just something we encounter in packaging or disposable products; it is now intimately connected to our daily lives through the very clothes we put on our bodies. This shift raises important questions about our exposure to plastics and their potential impact on our health.

Everyday microplastics exposure: from fabric to body

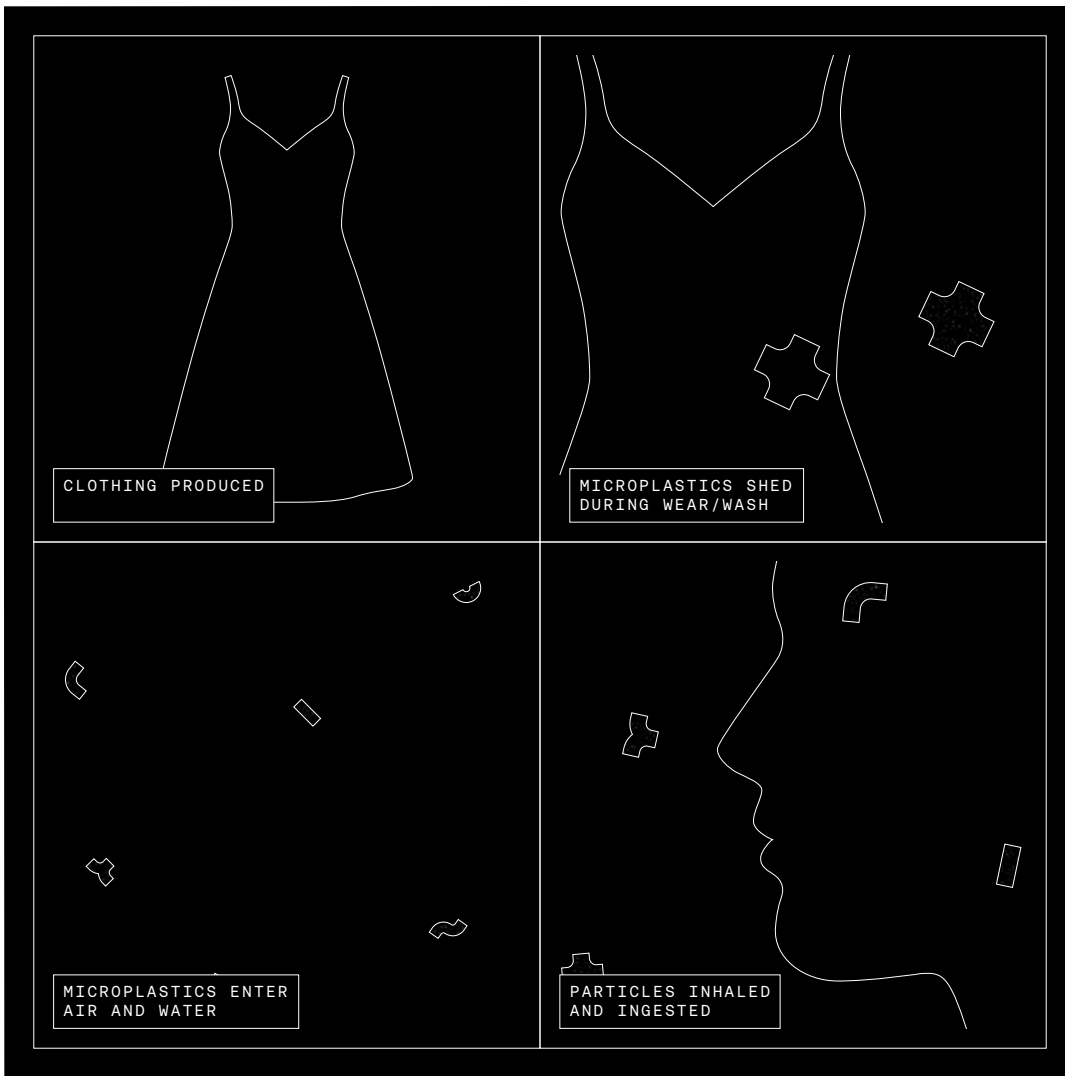
The release of microplastics from synthetic clothing is not just a distant environmental issue — it's something that happens in our homes every single day.

It is estimated that synthetic textiles are responsible for 35% of all primary microplastic pollution.²

Scientific studies have shown that both wearing and washing synthetic garments can release hundreds of thousands of microplastic particles into the air and water. For example, washing synthetic clothes can release nearly 300 million microplastics per year into the environment, while simply wearing the same clothes can release over 900 million microplastics into the air annually.^{3, 4}

These tiny plastic fragments, often referred to as microfibers or 'fiber fragments' when dispersed from textiles, are so small they are invisible to the naked eye. Yet, they become airborne with ease, swirling around us as we move, settle on surfaces, and linger in the dust of our homes. It is estimated that up to 65 percent of microplastics from synthetic textiles may be released into the air during the drying and wearing of garments.⁵

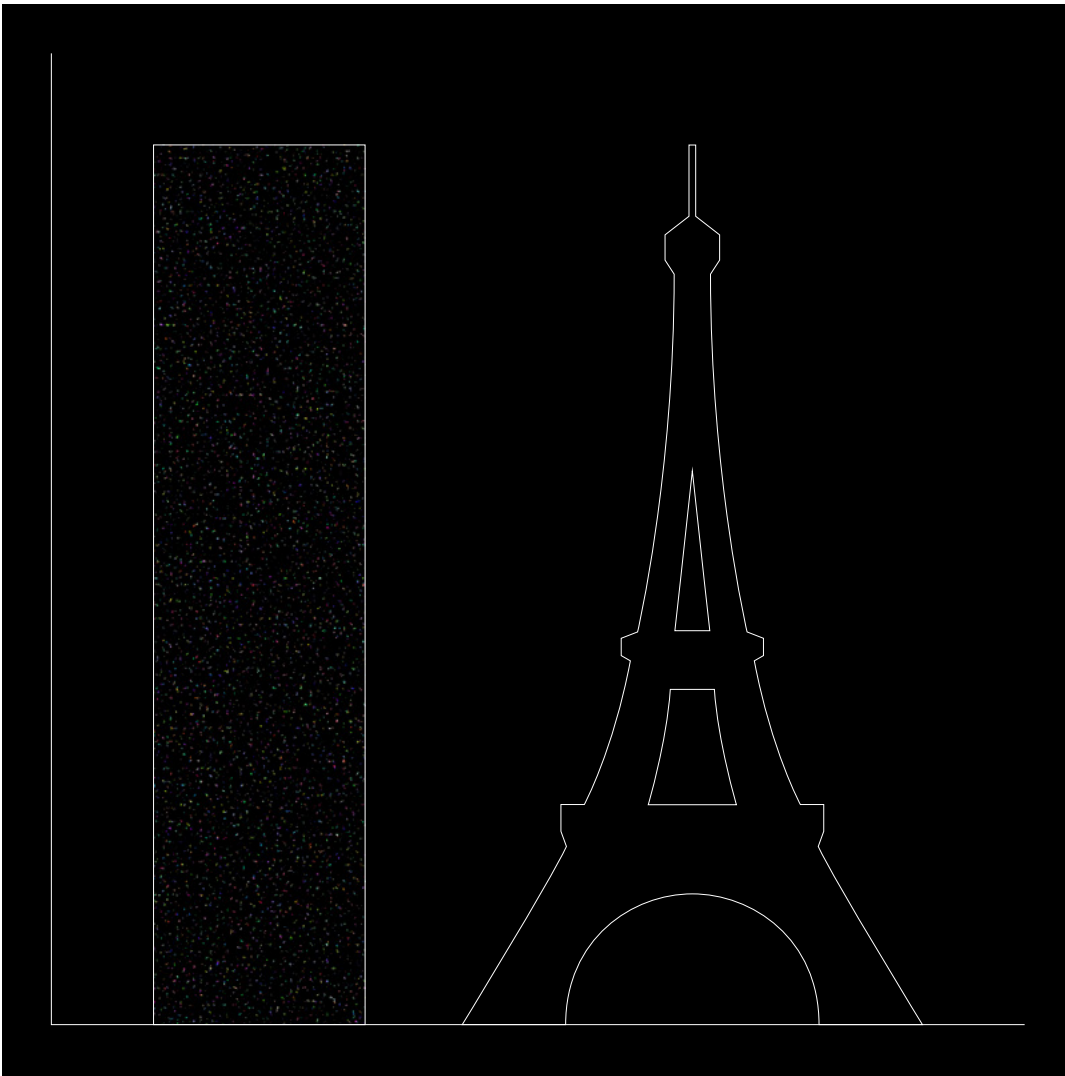
How do these microplastics actually get into our bodies? The pathways are both indirect and direct. Indirectly, we consume them through the food chain, as fish and other marine life ingest plastic particles that then end up on our plates. Directly, we inhale microplastics from the air or ingest them via 'dust' that settles on our food and hands. Studies are also looking at the possibility of microplastics being absorbed through the skin.



The implications of this constant shedding are considerable. Recent research estimates that the average person inhales or ingests between 74,000 and 121,000 microplastic particles per year. ⁶

To put that into perspective, research shows that the amount of microplastics inhaled in one year is equivalent, in visual height, to two giraffes standing on top of each other.⁷ Over a lifetime, this exposure could add up to a pile higher than the Eiffel Tower, or even approach the height of Snowdon Mountain at the upper end of estimates.⁸ This means that the very clothes we choose to wear are a direct source of microplastic exposure, contributing to the accumulation of these particles within our bodies over time.

VISUALISATION OF
THE AMOUNT OF
PLASTIC INGESTED
OVER A LIFETIME



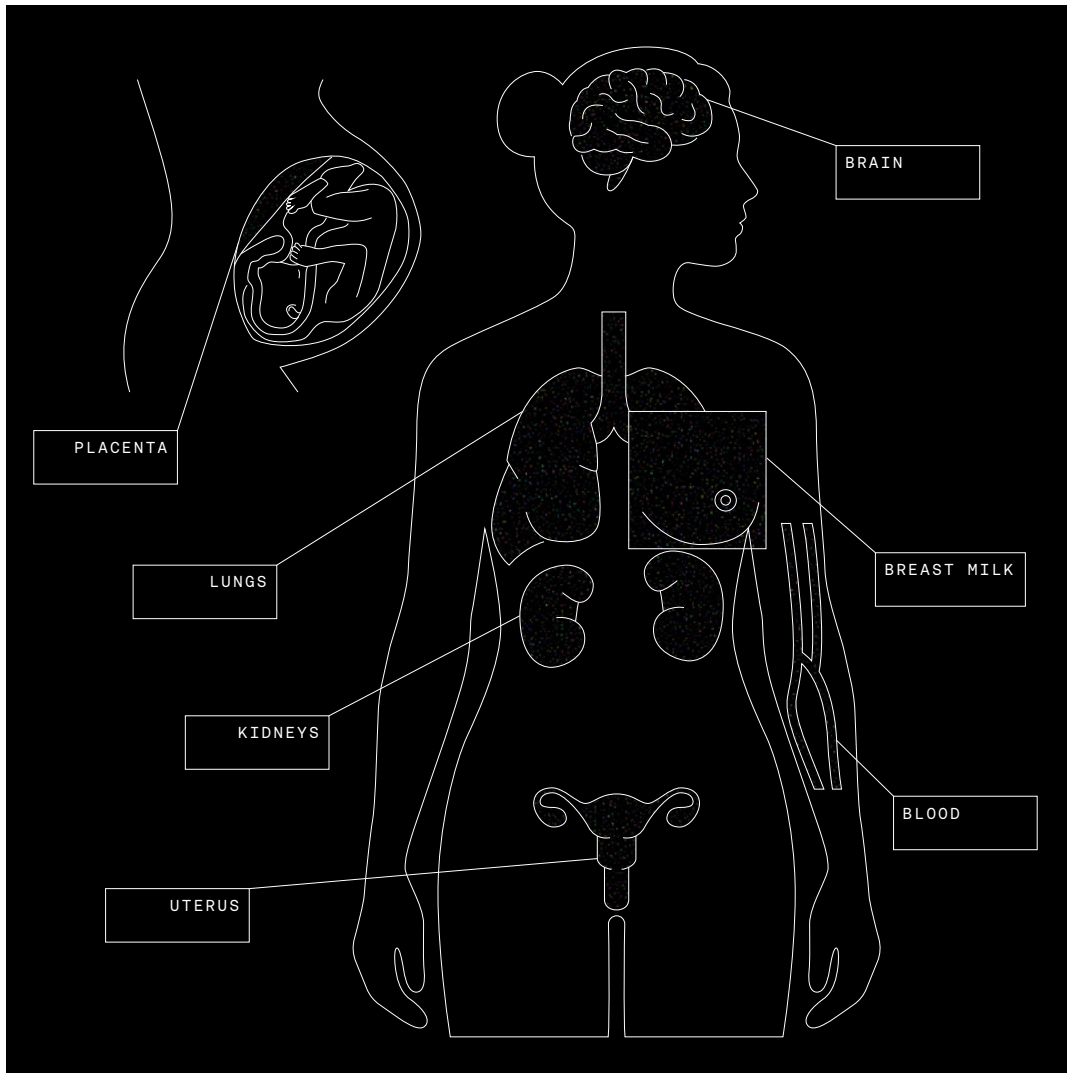
Where microplastics end up: a growing health concern

Microplastic particles do not simply pass through our bodies — they are now being detected in some of our most vital organs. Recent scientific studies have found microplastics in the lungs, kidneys, and even the brain.^{9, 10, 11} Even more concerning, these tiny plastic fragments have been discovered in the uterus, placenta, breast milk, and bloodstream.^{12, 13, 14, 15}

One of the major challenges facing researchers is pinpointing exactly where these microplastics come from. While we know that textiles are a key source of microplastic pollution, it can be difficult to trace each particle back to its origin. Nevertheless, the widespread presence of microplastics in our bodies



has sparked urgent research into their potential health effects, and the scientific community agrees that continued, further research is needed. Although the science is still emerging, early findings suggest that microplastics may not be as harmless as once thought. Researchers are investigating links between microplastic exposure and a range of health concerns, including inflammation, cellular damage, and other long-term health issues. While much remains to be learned, the key question is no longer whether we are exposed to microplastics, but what the long-term consequences of this constant exposure might be — especially from sources as close to us as the clothes we wear every day.



VISUALISATION OF
PARTS OF THE BODY
WHERE MICROPLASTICS
HAVE BEEN FOUND

Scientists around the world are racing to fill the knowledge gaps. Current studies are examining how microplastics interact with the human body, how they may affect vulnerable populations, and whether certain types of microplastics pose greater risks than others. Research is also focusing on the role of microplastics in immune response and chronic disease.



As this field evolves, one thing is clear: understanding and reducing our exposure to microplastics — particularly those released from synthetic textiles—is an important step toward protecting our health and the health of future generations.

Cotton: a natural alternative

In a world where synthetic, plastic-based fibers have become the norm, cotton offers a natural alternative. Like all textiles, cotton does shed tiny particles during use and washing; however, these fibers are made of cellulose — a plant-based material that breaks down easily in the environment. As a result, cotton itself does not contain plastic or contribute to persistent microplastic pollution.



But cotton's benefits go beyond that. Cotton is renowned for its breathability, which allows air to circulate freely around your skin. This helps regulate body temperature, keeps you cool and dry, and reduces the risk of irritation or moisture buildup that can lead to skin problems. For people with sensitive skin, allergies, or conditions like eczema, cotton's gentle touch is often recommended by dermatologists. Choosing cotton means choosing a material that works in harmony with your body's natural processes. Unlike synthetics, which can trap heat and moisture, cotton supports comfort and well-being throughout the day and night.

Making informed choices

Understanding the difference between synthetic and natural fibers empowers us to make healthier decisions for ourselves and our families. By opting for natural fibers like cotton, we can help reduce our daily exposure to microplastics — helping to minimize what enters our homes and, ultimately, our bodies. Even small changes in what we wear can support our well-being and encourage a shift toward safer, more natural living.

The next time you're shopping for clothes, take a moment to read the label. Ask yourself: Is this made from a plant, or is it made from plastic? Because what you wear matters — not just for your comfort, but for your health and the health of those you care about. Every informed decision brings us one step closer to a healthier future.

Footnotes

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