



Microplastics Are in Our Bodies. Here's Why We Don't Know the Health Risks

微塑料存在于我们体内，我们为何不知其健康风险

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502 Words

Tiny **particles** of plastic have been found everywhere — from the deepest place on the planet, the **Mariana Trench**, to the top of **Mount Everest**. And now more and more studies are finding that **microplastics**, defined as plastic pieces less than 5 millimeters across, are also in our bodies.

从地球最深处的马里亚纳海沟到珠穆朗玛峰山顶，塑料微粒无处不在。现在越来越多的研究发现，微塑料，即直径小于5毫米的塑料碎片，也存在于我们体内。

In recent years, microplastics have been **documented** in all parts of the human lung, in **maternal** and **fetal placental tissues**, in human breast milk and in human blood. Microplastics scientist Heather Leslie, formerly of Vrije University Amsterdam, and colleagues found microplastics in blood samples from 17 of 22 healthy adult volunteers in the Netherlands. The finding, published last year in *Environment International*, confirms what many scientists have long suspected: These tiny bits can get absorbed into the human bloodstream.

近年来，微塑料已被证明存在于人类肺部的各个部位、母体和胎儿的胎盘组织、母乳还有血液中。前阿姆斯特丹自由大学的微塑料科学家希瑟·莱斯利和同事们对荷兰22名健康的成年志愿者进行了研究，在其中17人的血液样本中发现了微塑料。这一发现于去年发表在《国际环境》杂志上，它证实了许多科学家长期以来的猜测：这些微粒可以被吸收至人体血液中。

The findings aren't entirely surprising; plastics are all around us. **Durable**, **versatile** and cheap to manufacture, they

◇ 真题链接

考研英语 2022 年英语一 Text 1

Water bottles, shopping bags, and other trash litter the planet, from Mount Everest to the Mariana Trench, because plastics are everywhere and don't break down easily.

particle ['pɑ:rtɪkl] *n.* 颗粒，微粒，极小量；粒子 | There is a particle of truth in his statement. 他的陈述中有一点点实话。

Mariana Trench 马里亚纳海沟（位于太平洋底，是已知的海洋最深处）

Mount Everest 珠穆朗玛峰

microplastics *n.* 微塑料

document ['dɒ:kjʊmənt] *v.* 记录，记载；用文件证明 *n.* 文件

maternal [mə'tɜ:rnəl] *adj.* 母亲的；母系的 | She seems to have a strong maternal instinct. 她似乎有很强的母性。

fetal ['fi:təl] *adj.* 胎儿的

placental [plə'sentl] *adj.* 胎盘的

tissue ['tɪʃu:] *n.* （人、动植物细胞的）组织；纸巾

durable ['dʊərəbl] *adj.* 耐用的，持久的 | Wood is a durable material.

are in our clothes, **cosmetics**, electronics, tires, packaging and so many more items of daily use. And the types of plastic materials on the market continues to increase. “There were around 3,000 plastic materials when I started researching microplastics over a decade ago,” Leslie says. “Now there are over 9,600. That’s a huge number, each with its own chemical makeup and potential **toxicity**.”

这并不奇怪：我们被塑料环绕着。塑料耐用，用途广泛，制造成本低廉，存在于我们的衣服、化妆品、电子产品、轮胎、包装和许多日常用品中。而市面上塑料材料的种类也在不断增加。“十多年前我开始研究微塑料时，存在大约 3000 种塑料材料，”莱斯利说，“现在超过 9600 种。这是一个巨大的数字，每种塑料材料都有自己的化学组成和潜在毒性。”

Plastic particles are intentionally added to cosmetics like lipstick, **lip gloss** and eye makeup to improve their feel and **finish**, and to personal care products, such as face **scrubs**, toothpastes and shower gels, for the cleansing and **exfoliating properties**. When washed off, these microplastics enter the **sewage** system. They can end up in the sewage **sludge** from wastewater treatment plants, which is used to **fertilize** agricultural lands, or even in treated water released into waterways.

塑料微粒被有意添加到口红、唇彩和眼妆等化妆品中，以改善它们的触感和质地。塑料微粒也被添加到个人护理产品中，比如面部磨砂膏、牙膏和沐浴露，以达到清洁和去角质的效果。被洗掉后，这些微塑料进入污水系统。它们最终会出现在污水处理厂里用来给农田施肥的污泥中，甚至随着处理过的水排放到河道中。

What **if any** damage microplastics may do when they get into our bodies is not clear, but a growing community of researchers investigating these questions thinks there is reason for concern. **Inhaled** particles might **irritate** and damage the lungs, **akin to** the damage caused by other particulate matter.

And although the composition of plastic particles varies, some

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木头是耐用材料。

versatile [ˈvɜːrsətl] *adj.* 多用途的，多功能的；多才多艺的，有多种技能的 | The potato is an extremely versatile vegetable. 马铃薯是一种用途极广的蔬菜。

cosmetic [kɑːzˈmetɪk] *n.* 化妆品 *adj.* 装门面的，表面的；整容的 | These reforms are not merely cosmetic. 这些改革不仅仅是装点门面的。

toxicity [tɒːkˈsɪsəti] *n.* 毒性

lip gloss 唇彩

finish [ˈfɪnɪʃ] *n.* 质感，（光滑或粗糙的）表面，抛光

scrub [skrʌb] *n.* 磨砂膏；手术衣；灌木丛；擦洗 *v.* 擦洗，刷洗 | The woman scrubbed at her face with a tissue. 那女人用纸巾擦脸。

exfoliate [eksˈfəʊliet] *v.* 去角质，使死皮脱落

property [ˈprɒːpərti] *n.* 性质，性能；财产，所有物；房地产 | The water is said to have healing properties. 那水据说具有治疗功效。

sewage [ˈsuːɪdʒ] *n.* （下水道的）污水，污物

sludge [slʌdʒ] *n.* 烂泥，淤泥，工业淤渣

fertilize [ˈfɜːtəlaɪz] *v.* 施肥；授粉

if any 如果有的话 | Please let me know how many are coming, if any. 请告诉我，如果有人要来的话，有多少？

contain chemicals that are known to **interfere with** the body's **hormones**.

微塑料进入我们的身体后会造成什么伤害尚不清楚，但越来越多研究这些问题的研究人员认为我们有理由感到担忧。吸入的颗粒可能会刺激和损害肺部，与其他颗粒物造成的损害类似。尽管塑料颗粒的成分各不相同，但其中一些含有已知会干扰人体激素的化学物质。

Several countries have banned the use of microbeads in specific categories of products, including **rinse-off** cosmetics and toothpastes. But there are no regulations or policies anywhere in the world that address the release or **concentrations** of other microplastics — and there are very few consistent monitoring efforts. California has recently taken a step toward monitoring by approving the world's first requirements for testing microplastics in drinking water sources. The testing will happen over the next several years.

一些国家已经禁止在特定类别的产品中使用塑料微珠，包括需要冲洗的化妆品和牙膏。但是，全球各地尚未出台解决其他微塑料的释放或聚集的法规和政策，而且很少有连续的检测。加州最近采取措施加强检测，批准了世界上第一个在饮用水源中检测微塑料的要求。检测将在未来几年内进行。

Consumers can also choose to avoid cosmetics and personal care products containing microbeads. Buying clothes made from natural **fabrics** like cotton and **linen**, instead of from **synthetic** materials like **acrylic** and **polyester**, helps reduce the **shedding** of microplastics during wear and during the washing process.

消费者也可以选择避免使用含有塑料微珠的化妆品和个人护理产品。购买由天然织物如棉、亚麻制成的衣服，而不是由丙烯酸和聚酯纤维等合成材料制成的衣服，这有助于减少穿着和洗涤过程中的微塑料脱落。

Perhaps the biggest thing people can do is rely on plastics less. Reducing overall consumption will reduce plastic pollution, and so reduce microplastics **sloughing** into the air and

inhale [ɪnˈheɪl] v. 吸入，吸气 | Maria inhaled deeply before speaking again. 玛丽亚在再次讲话前深深地吸了口气。

irritate [ˈɪrɪteɪt] v. 刺激；使恼怒 | This cream may irritate sensitive skin. 这种润肤霜对敏感性皮肤可能有刺激。

akin to 与某物相似的 | What he felt was more akin to pity than love. 他感受到的更像怜悯，而不是爱。

interfere with 干扰；妨碍，阻止 | Anxiety can interfere with children's performance at school. 焦虑会影响孩子在学校的表现。

hormone [ˈhɔːrmoun] n. 激素，荷尔蒙

rinse [rɪns] v./n. 冲洗，洗刷 | She rinsed the mud from her hands. 她冲洗掉手上的泥浆。

concentration [ˌkɒːnsnˈtreɪʃn] n. 集中；浓度，含量；专心，专注；重视

fabric [ˈfæbrɪk] n. 织物，布料；结构，构造

linen [ˈlɪnɪn] n. 亚麻布

synthetic [sɪnˈθetɪk] adj. 合成的，人造的

acrylic [əˈkrɪlɪk] n. 丙烯酸

polyester [ˌpɔːliˈestər] n. 聚酯纤维，涤纶

shed [ʃed] v. 掉落；去除，摆脱；流泪 n. 棚屋 | The factory is shedding a large number of jobs. 这

water.

也许人们能做的最重要的事情就是减少对塑料的依赖。减少塑料总消费量将减少塑料污染，从而避免微塑料进入空气和水中。

家工厂正大批裁员。

slough [slʌf] *v.* 脱落, 蜕皮 *n.* 绝望的境地; 沼泽 | Slough off dead skin cells by using a facial scrub. 用脸部磨砂膏去除皮肤死皮。

► 脉络梳理

Para. 1-2 引出话题：微塑料存在于人体中

Para. 3-4 分析原因：塑料广泛用于日常用品中，并通过污水处理系统进入农田和河道

Para. 5 指出微塑料会对人体造成危害，包括损害肺部，干扰激素

Para. 6-8 提出建议：政府应出台相关法律法规加强监管，消费者应减少购买塑料制品

► 长难句拆解

分句 1: What [if any] damage microplastics may do when they get into our bodies is not clear.

分句 2: but a growing community of researchers investigating these questions thinks

宾语从句，作 thinks 的宾语

there is reason for concern.