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Search (https://search.earth911.com) | Recycle Search (https://search.earth911.com/?utm\_source=earth911-header)

Recycle Guide (https://earth911.com/recycling-center-search-guides/?utm\_source=earth911-header)

Menu



Recycle Search

(https://search.earth911.com/?utm\_source=earth911-header)



Recycle Guide

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Reading time: 3 mins

## Can Face Masks Be Recycled?

Gemma Alexander Mar 2, 2021



There is not a lot of data about how much waste the use of face masks is generating in the U.S. But according to [one estimate \(https://ucl.scienceopen.com/document\\_file/975516df-aa0e-4b79-b950-c54e5608a3e0/ScienceOpenPreprint/Covid19-Masks-Journal-paper.submitted.pdf\)](https://ucl.scienceopen.com/document_file/975516df-aa0e-4b79-b950-c54e5608a3e0/ScienceOpenPreprint/Covid19-Masks-Journal-paper.submitted.pdf), if everyone in the U.K. used a disposable mask each day for a year, it would create 66,000 metric tons of contaminated waste and 57,000 metric tons of plastic packaging waste. [Greenpeace Taiwan estimates \(https://www.greenpeace.org/international/story/44629/where-did-5500-tonnes-of-discarded-face-masks-end-up/\)](https://www.greenpeace.org/international/story/44629/where-did-5500-tonnes-of-discarded-face-masks-end-up/) that during a 14-week period of 2020, Taiwan used roughly 1.3 billion surgical masks. If the global population uses one disposable face mask per day, we'd dispose of 129 billion face masks each month (https://science.sciencemag.org/content/369/6509/1314).



# A Better Option

Already, some people are working on finding new uses for old masks and developing biodegradable masks. [Abaca \(https://www.bloomberg.com/news/articles/2020-07-28/masks-made-from-banana-tree-species-cut-covid-s-plastic-waste\)](https://www.bloomberg.com/news/articles/2020-07-28/masks-made-from-banana-tree-species-cut-covid-s-plastic-waste), a biodegradable fiber from banana plants, has shown promise as a potential replacement for polyester and plastics in medical masks. An eco-entrepreneur in India is working to convert disposable masks into [construction bricks \(https://www.seattletimes.com/nation-world/the-pandemic-is-generating-tons-of-discarded-ppe-this-entrepreneur-is-turning-them-into-bricks/\)](https://www.seattletimes.com/nation-world/the-pandemic-is-generating-tons-of-discarded-ppe-this-entrepreneur-is-turning-them-into-bricks/). And a company called [Plaxtil \(https://miami.cbslocal.com/2020/08/28/face-mask-recycling-is-green-solution-for-blue-protective-masks/\)](https://miami.cbslocal.com/2020/08/28/face-mask-recycling-is-green-solution-for-blue-protective-masks/) is upcycling used PPE into new PPE. But for now, the best most of us can do to reduce pandemic-related waste is to wear [reusable cloth masks \(https://earth911.com/living-well-being/washing-cloth-face-masks/\)](https://earth911.com/living-well-being/washing-cloth-face-masks/) whenever possible.

## Cloth Masks

According to the University College of London (<https://theconversation.com/coronavirus-face-masks-an-environmental-disaster-that-might-last-generations-144328>), machine-washing reusable masks is the most eco-friendly masking strategy. But even reusable cloth masks eventually wear out. Especially if you are following the CDC [washing recommendations \(https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wash-cloth-face-coverings.html\)](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-to-wash-cloth-face-coverings.html), masks will shrink or start coming apart at the seams. According to the World Health Organization, you [should not wear \(https://www.who.int/images/default-source/health-topics/coronavirus/clothing-masks-infographic---web---part-2.png?sfvrsn=d7b0f88d\\_22\)](https://www.who.int/images/default-source/health-topics/coronavirus/clothing-masks-infographic---web---part-2.png?sfvrsn=d7b0f88d_22) a cloth mask that looks damaged, doesn't fit properly, is wet or dirty, or has been worn by others. Some epidemiologists recommend [replacing them seasonally \(https://www.seattletimes.com/nation-world/you-should-probably-replace-some-of-your-fabric-face-masks/\)](https://www.seattletimes.com/nation-world/you-should-probably-replace-some-of-your-fabric-face-masks/) as a precaution. It's a good idea to check your masks for tears or damage each time they come out of the wash.





WEARING REUSABLE MASKS THAT YOU MACHINE-WASH REGULARLY MAY BE THE MOST ECO-FRIENDLY MASKING STRATEGY. IMAGE COURTESY OF SAMSON KATT ([HTTPS://WWW.PEXELS.COM/@SAMSON-KATT](https://www.pexels.com/@samson-katt)), PEXELS

## Mixed Messages

Since most people have been wearing cloth masks for less than a year, most of us haven't worn them out yet, so people are just beginning to think about what to do when they are no longer usable. The [World Health Organization \(https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks\)](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks) says, "When you take off a mask, store it in a clean plastic bag, and every day either wash it if it's a fabric mask, or dispose of a medical mask in a trash bin." But they do not have recommendations on the disposal of cloth masks. Neither does the CDC. Like pandemic safety, pandemic waste is being handled differently in different places, and the guidelines are changing frequently. Check with your local solid waste utility to find out if they have specific disposal guidelines for cloth masks. So far, most of them don't.

# Recycling

Like underwear, face masks are a secondhand clothing item that most people don't want no matter how thoroughly they've been washed. And because they involve a lot of seams in a small amount of fabric, it's not easy to disassemble masks for upcycling or crafts. In some communities, like [San Jose](https://sanjoserecycles.org/guide/face-masks/) (<https://sanjoserecycles.org/guide/face-masks/>), cloth masks are accepted for recycling with other textiles. However, textile recycling is not available everywhere. Even many communities that do offer textile recycling consider face masks a health risk and do not accept them. If your community accepts cloth masks for textile recycling, be sure to wash your old masks in hot water first.

# Disposal Don'ts

As many as [1.5 billion face masks](https://www.oilandfills.com/news/think-twice-tossing-your-face-mask) (<https://www.oilandfills.com/news/think-twice-tossing-your-face-mask>) (of any kind) may enter marine ecosystems in the year 2021. Like other [ocean pollution](https://www.washingtonpost.com/national/ppe-pollution-oceans-covid/2020/12/10/91c28e98-3990-11eb-80ac-d1978d86bc9c_story.html) ([https://www.washingtonpost.com/national/ppe-pollution-oceans-covid/2020/12/10/91c28e98-3990-11eb-80ac-d1978d86bc9c\\_story.html](https://www.washingtonpost.com/national/ppe-pollution-oceans-covid/2020/12/10/91c28e98-3990-11eb-80ac-d1978d86bc9c_story.html)), masks can release microplastics or be eaten by wildlife. Littering is always a bad idea, but simply discarding an old mask outdoors is also a potential health hazard. If the mask has been exposed to viral particles, anyone who tries to clean up after you risks exposure. Similarly, you should not dispose of used masks (cloth or disposable) in open trash bins.







LITTERING IS ALWAYS A BAD IDEA, BUT LITTERING A USED MASK IS ALSO A POTENTIAL HEALTH HAZARD.

## Disposal Do's

In the absence of official guidelines, many people would like to err on the side of precaution. If you are one of them, and you have access to medical waste disposal, you can treat your used masks as medical waste. Medical waste is usually incinerated. Sometimes it is sterilized before rejoining the regular waste stream. A second option may be to treat your used masks as household hazardous waste (HHW). However, few communities have the infrastructure or funding to manage used masks as HHW.

For most people, disposal in the regular garbage is the only option. In this case, consider your old masks comparable to a used tissue or Band-Aid. Seal the mask in a small bag before putting it in the garbage bin, even if you have washed or stored it for 72 hours first. That way, if your garbage bag