

Handkerchief or tissue? Which one's better for our health and the planet?

September 29 2023, by Mark Patrick Taylor and Hester Joyce



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

Maybe you have hay fever, COVID, a cold or the flu, and are reaching for a tissue or handkerchief.

But which one's better at stopping infections spreading? Which has a smaller environmental impact? Is it the hanky, which has been with us

since at least Roman times? Or the more recent and widely-used paper [tissue](#)?

You might be surprised at the results.

A short history of the handkerchief and tissue

Today, we think of hankies as something to wipe noses, and catch coughs and sneezes. But such a simple square of cloth has a complex history.

In the first century, the Romans [used](#) a sudarium (Latin for sweat cloth) to wipe off sweat, or to mask the mouth and face.

Over time, people have used what we now call a handkerchief or hanky, as a head covering, as a veil and for disguise, to clean hands, for wounds and to staunch blood.

Wealthy people have used them to signify class and manners, and for discretely wiping away phlegm rather than smearing snot on sleeves or down skirts. Royalty have used them to indicate wealth and power through their gifts of fine linen and silk handkerchiefs to favored subjects. Henry VIII owned an extensive collection, some embossed with gold and silver.

Handkerchiefs have also been [markers of](#) love, fidelity and sexual preferences. In the late 19th century the "handkerchief code" was a system of color coding and handkerchief placement used to indicate sexual preferences, [which is still active](#) in LGBTQ+ communities today.

We can [trace the origins](#) of paper tissue to China in the 2nd century BC. But it wasn't until the 1920s that tissue as we know it today [was developed](#) to remove make-up and wipe runny noses from hay fever.

So, which one is better for our health?

More than 100 years ago, a cloth hanky was considered a "[little flag of Death](#)" because of the germs it carried and how it contaminated pockets it was left in. Later, we were urged to use a hanky [as](#) "coughs and sneezes spread diseases".

Today, we know nasal secretions harbor cold-type viruses that can be [transferred](#) to a [range of surfaces](#)—hands, handkerchiefs, tissues, door knobs, keyboards—sometimes surviving [long after](#) the initial exposure.

So blowing your nose into a reusable [cotton](#) hanky, then touching another object, means these viruses can spread. Even if you put your cotton hanky in the wash immediately, you'd likely contaminate surfaces on the way, such as doorknobs, and use your infected hands to operate the washing machine.

Viruses don't tend to [survive so long](#) on tissues. As long as you throw tissues away after using them, and don't leave them lying around for others to pick up, the chance of passing germs to others from a used tissue is far lower.

Then there's the question of whether hankies or tissues are effective barriers to coughing and respiratory spray.

Basic cloth coverings, such as handkerchiefs or bandannas, can catch sputum, as can tissues. But several studies have shown they do not effectively [filter respiratory aerosols](#), or [stop you inhaling](#) pollutants, pathogens or [small airborne particles](#).

Which one is better for the planet?

If you want to look at environmental considerations, US company Ecosystem Analytics [compared](#) reusable cotton hankies to disposable paper tissues using a [lifecycle analysis](#). It considered four measures of environmental impacts associated with production, transport, use and disposal:

- [climate change](#) (sum of greenhouse gases: [carbon dioxide](#), methane, water vapor, [nitrous oxide](#) and CFCs)
- ecosystem quality (chemical pollution of land and water)
- [human health](#) (carcinogenic and non-carcinogenic toxicity to humans)
- resources (total energy requirements of non-renewable energy and mineral extraction).

The verdict? Across the four measures, a cotton hanky had five to seven times greater impact than an equivalent tissue.

And, by far, the greatest impacts were related to the production of each of these products, rather than using or disposing of them.

If you're still keen to use a cotton hanky, you could opt for [organic cotton](#), which has a [lower ecological footprint](#) compared to standard cotton produced in the same location. But organic cotton production has [lower yields](#) than its conventional equivalent, meaning more land is needed to produce an equivalent amount, compounding the total environmental impact.

If you want to feel better about using tissues, ones made from recycled material may be a better option. Their manufacture leads to [fewer](#) greenhouse gas emissions compared with making regular tissues.

The verdict

Wiping our noses with paper tissues we dispose of properly after use (and don't store in our pocket), made from recycled material, is preferable from both a health and environmental perspective.

But tissues don't quite have the same panache as the historic and versatile cloth hanky.

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