

Do homemade masks work? Sometimes. But leave the design to the experts

March 30 2020, by Emily Brayshaw



Credit: EPA/JEROME FAVRE

Once again, global crafting communities are stepping up to help in a crisis, [sewing face masks](#) desperately needed in American hospitals to help stop the spread of COVID-19.

People are also increasingly sporting homemade masks to try to stay safe.

But while they might look cute, homemade masks are a sign of both positive social changes and serious social failings.

As America's Center for Disease Control [states](#): homemade masks are a last resort.

Medical masks in modern times

Surgical masks were first used in France [in 1897](#), but it wasn't until the great [Manchurian plague epidemic](#) in China in 1910 that [medical staff](#) and patients started to wear personal protection equipment (PPE) to try to halt the spread of disease.

During the 1919 [Spanish Flu outbreak](#) masks became mandatory for Australian medical professionals. Other workers, including gravediggers, also started wearing masks and soon they became a fashion statement.

Deadly virus outbreaks in the last 20 years, including SARS in 2003, Swine Flu in 2009 and [Ebola in 2014](#) have meant images of the [general public](#) wearing medical and homemade PPE to combat the spread of deadly viruses are now commonplace.

A global PPE shortage

Medical dramas like Grey's Anatomy have [donated](#) PPE from their costume departments to hospitals. Hollywood's [Costume Designers Guild](#) and the Bavarian State Opera's [costumiers](#) are sewing masks.



Three women wearing face masks during the Spanish Flu pandemic in Australia, 1919. Credit: State Library New South Wales

Prominent US fashion labels owned by [Christian Siriano and Dov Charney](#) are starting to manufacture PPE. French luxury group Kering will provide [3 million](#) surgical masks to France. Gucci will make 1.1 million masks for Italy.

Sewing masks is an activity that can assist people self-isolating at home feel like they are helping to fight COVID-19. Crafting communities like [Sew the Curve Flat](#) have formed to meet the challenge.

Masks must be made to strict standards and patterns. These are widely

disseminated, but craft groups are still flooded with suggestions from well-meaning people who want to make perceived "improvements" to designs.

Even small changes to mask design can render it useless.

Do they work?

There is [conflicting research](#) into the efficacy of homemade masks. Studies into [H1N1 viruses](#) show common fabrics may provide only marginal protection against virus-containing particles in exhaled breath. But the general consensus among medical staff is homemade masks are [better than nothing](#) when treating patients.

It is imperative crafters [follow specifications](#). The best homemade masks are made from fabric with a tight weave, and have a moisture impermeable layer and/or a pocket for a replaceable HEPA (high-efficiency particulate air) filter. A bandanna around your face won't do the job.



Coloured fabric masks are now commonplace. Credit: [Laura Dewilde/Unsplash](#), [CC BY](#)

Wearing [face masks](#) is not recommended for the general public and can be [dangerous](#) because people overestimate the level of protection offered and neglect social distancing rules and thorough hand washing.

Wearing a mask is generally only useful if you [are already sick](#) by slowing the spread of germs.

But if you choose to wear a mask, microbiologist Anna Davies from the

University of Cambridge says it [must be](#) well-fitting over your mouth and nose. You can't touch a mask while you're wearing it, or pull it under your chin for a break. It must be changed as soon as it's wet and disposed of or placed in the washing machine carefully. You must wash your hands thoroughly before and after handling it.

If you fail to follow these precautions you could get coronavirus from handling a dirty mask.

Where to from here?

Australia is addressing [PPE shortages](#) and the Australian army is helping to run three shifts [around the clock](#) to increase production at the Med-Con factory near Shepparton.

Melbourne's The Social Studio has moved its production away from contemporary fashion to making scrubs [at cost price](#) for Australian health care workers.

Even so, [many hospitals](#) are struggling with limited resources and fear further PPE shortages.

For the general public, the power of wearing homemade masks lies not in their efficacy, but in their signalling of a collective action taken towards safety and protection in in uncertain times.

But seeing desperate hospital staff wearing homemade [masks](#) that afford little protection is also a powerful symbol of the need to transform our societies to [become more fair and equitable](#).

As long as hospitals face PPE shortages, the work of crafters will be crucial in combating COVID-19. It is vital that we leave these essential stocks of PPE for medical and auxiliary staff.

For most of us, the best thing to do stop the spread—and protect ourselves—is thorough hand washing and social distancing.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: Do homemade masks work? Sometimes. But leave the design to the experts (2020, March 30) retrieved 12 May 2024 from <https://medicalxpress.com/news/2020-03-homemade-masks-experts.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.