

Coronavirus [Read our latest advice](#)

Which?

Coronavirus: where to buy face masks and how to make your own

By Anna Studman

Find out about the different types of face mask, what to know before buying one or making your own and - most importantly - how to use one properly



Social distancing and good hand hygiene remain the best ways to protect yourself and others against coronavirus.

However, face coverings may be useful as an additional measure for the general public where social distancing is more difficult to achieve.

The government has now issued guidance to this effect, advising that people 'should aim to wear a face covering in enclosed spaces where social distancing is not always possible and when they come into contact with others who they do not normally meet - for example, on public transport or in some shops'.

There is disagreement among experts as to how strong the evidence is for the benefit of face masks being worn by the general public and research is still ongoing. But the new government advice follows similar measures introduced around the world.

One thing most experts agree on - you shouldn't be buying medical-grade masks, such as N95 respirators, as these are not appropriate for general everyday use and divert essential supplies from frontline health workers who do need them.

If you do decide to use a face covering, it's crucial to use it properly and make sure it fits well, otherwise you could end up increasing your risk of infection.

In this article:

- [What you need to know about wearing a face mask](#)
- [Buying a face mask](#)
- [Making your own face mask](#)
- [The best material for face masks](#)
- [How to use a face mask properly](#)
- [How to wash a face mask](#)

What is the evidence for face masks?



Government advice states that homemade cloth face coverings can help reduce the risk of transmission in some circumstances.

Face masks are meant to prevent both larger droplets and smaller aerosol particles we exhale from spreading, by capturing these particles as they exit our airways when we cough, sneeze or talk.

This is important because evidence suggests these particles can carry a significant viral load that can survive for periods of hours or even days.

Some people want to buy face masks to protect themselves from catching coronavirus, but it's important to note that:

- social distancing and good hand hygiene is the most effective approach
- basic surgical masks and cloth masks provide little protection against airborne particles, as smaller particles can still get through gaps
- incorrect mask use and reusing single-use masks can increase, rather than decrease your risk of infection
- Medical-grade masks such as N95 respirators are single or limited-use, and need to be fit-tested to work correctly. They are designed for those in prolonged close contact with infected patients and supplies are very limited, so should be saved for frontline health workers.

Government advice states that 'face coverings are not intended to help the wearer, but to protect against inadvertent transmission of the disease to others if you have it asymptotically'.

Experts told us that this is the principle behind face coverings such as basic surgical masks, which are intended to mainly block particles that the wearer emits, rather than filtering external viral particles from reaching them.

With COVID-19, there's a long incubation period where people may be asymptomatic or minimally symptomatic, and may not realise they are

spreading viral particles when out in public.

The evidence for the general public wearing face masks is not as clear cut as it is for social distancing and proper hand hygiene, and their use is in addition to, not instead of, these measures. So even if you're wearing a mask, it's vital to maintain these practices.

Some experts fear improper mask use may even put people at more risk of infection, so it's also important to know how to use and clean a mask safely.

Buying a face mask

If you want to purchase a face mask, it's best to opt for a reusable handmade cloth one if you can.

High-filtration masks are limited use and should be left for NHS and other frontline workers, and surgical masks are single-use disposable products. As they're in high demand, it's likely to be difficult and expensive to keep up a steady supply. The environmental impact of everyone using disposable surgical masks would also be high, as they are non-recyclable.

However, bear in mind, a homemade cloth mask doesn't conform to any particular standards as it's not a medical product, so it pays to be vigilant about who you buy from, or consider making one yourself.

Face mask features to look out for



There are a few different types of mask available to buy, from simple cotton cloth masks made by individual sellers in response to the current

crisis, to commercial options made from polypropylene or with in-built filters.

Outside of medical and DIY-type masks, reusable commercial options are generally the type originally designed for commuters and cyclists in polluted cities.

Cotton masks These are simple and lightweight, usually in either a pleated or moulded design. Look for masks with multiple layers of fabric for additional filtration, or a filter pocket, rather than just one layer.

Synthetic fibres Some companies are making masks from synthetic materials or combinations of different materials to enhance filtration. Polypropylene is a common type and is the same material used for higher-grade medical face masks. Some commuter-style masks use polyester or spandex on the outside and a more breathable/comfortable cotton layer on the inside to improve comfort for regular use.

Filters and filter pockets Some cloth masks include a pocket where you can slip in a filter. With handmade cloth masks, the onus is usually on you to source this. Kitchen roll or coffee filter paper are useful options that can be disposed of after each use.

Commercially-made masks may come with a more high-tech filter supplied, that you need to change less frequently. These filters are usually sold separately and often made from melt-blown nanofibres (often polypropylene), which can filter microscopic particles similar to those used in industrial and medical-grade masks.

Valves Some close-fitting and thicker material masks - usually construction or commuting masks - have exhalation valves built-in (see image above middle). This is because the close fit and dense material can make breathing hard, especially with extended wear or if wearing while exercising. However, these aren't appropriate as this means the air you exhale is not filtered, so this type of mask will not protect others if you have the virus.

Shape Folded masks are made from rectangular fabric (see image above right), often with pleats to let it stretch over your face. You can also get curved masks that follow the shape of your face (see image above left) – these may fit more snugly.

Nose wire Some masks have a built-in metal wire across the bridge of your nose to help mould the mask close to your face and keep it in place. This can be especially helpful if you wear glasses, to help prevent them steaming up.

Ties Most masks have some kind of elastic straps to attach the mask to your face. To reduce the risk of infection, you need to be able to remove it just using the straps and not touching your face or the front of the mask. It's worth checking these have enough give, so they aren't uncomfortable to wear but still help the mask fit closely to your face. Some handmade masks may use ribbons or fabric ties instead. Which type works best depends on the construction of the individual masks and your preference, but look for ties that are likely to be comfortable but also offer a snug fit.

What about face masks for children?

It's not recommended that children under two years old wear face masks, as they may pose a suffocation risk. Social distancing and hand hygiene are the best approaches for keeping them protected.

Even with older children, the difficulty is in ensuring they use face masks properly, adhering to the hygiene guidelines. If you do choose to get masks, look for smaller ones as adult ones are likely to be too loose to provide protection. Some children's masks come in fun designs.

Where can you buy reusable face masks?



Face masks are in high demand, but there's a good selection of reusable fabric masks made by individual sellers on craft website Etsy.

Some commercial retailers including Hype and Vistaprint, and London-based designers Newt and Edeline Lee had stock at time of writing, but demand is high so it may be difficult to source ready-made options.

Some sellers are donating part of their profits or products to the NHS.

How much do face masks cost?

Prices range from about £10 for basic cotton pleated masks, to £15-20 for more complex nanofibre/polypropylene masks, and £30 or more for higher-end masks.

Some are sold in multi-packs, which could be handy as you will need to have at least one spare while the other is washed (which you need to do after each use).

It's also worth looking for sellers who offer different size options, usually for men and women, as this makes it more likely you'll get a good fit.

Watch out for dodgy sellers

As demand for masks is likely to grow now that the government has suggested their use, be wary of sellers selling products at very high prices.

Equally, if prices seem too good to be true, or you find something for sale that is hard to find elsewhere - such as medical-grade masks - it might be fake, particularly on online marketplaces.

If you've seen examples of inflated prices online, [report price gouging to Which?](#) to let us know.

Disposable masks



Single-use surgical masks work to the same basic principles as a homemade version - ie they provide basic protection against large droplets, but not smaller particles, and serve to protect others from you if you are asymptomatic.

They are relatively cheap, disposable products and can be found more widely, with some supermarkets planning on stocking these now that government advice has changed.

It's best to avoid them if you can, though, as demand is likely to be high which puts a strain on supplies for frontline workers.

Also, because they must be disposed of after each wear (and are non-recyclable), they aren't a very practical or economical solution for use on day-to-day activities such as commuting.

Other types of face covering



Cycling /commuter masks These are designed to filter out pollution for road and city commuters, and are usually made from a fabric such as neoprene. They are close fitting and have in-built filters (which need to be changed regularly) and valves for easier breathing. They tend to be thicker and bulkier than masks for general use, and are generally more expensive (around £25-£30). The exhalation valve means they won't protect others, as you can still exhale unfiltered particles, so they aren't really suitable.

Dust Masks These vary from relatively basic, to higher-filtration FFP2 and FFP3 masks for construction work, similar to those used in medical settings. Most are single or limited use and have exhalation valves, which make it easier to breath but don't filter the air you breath out. This means they aren't suitable for protecting others from viral particles you might exhale.

Scarves/bandanas/ski buffs The lowest-effort option is also probably the least effective. In fact, they may even be counterproductive as they can easily become contaminated, move around a lot and are unlikely to fit snugly to the face. Ski buffs in particular are difficult to remove without touching the front, so should be avoided.

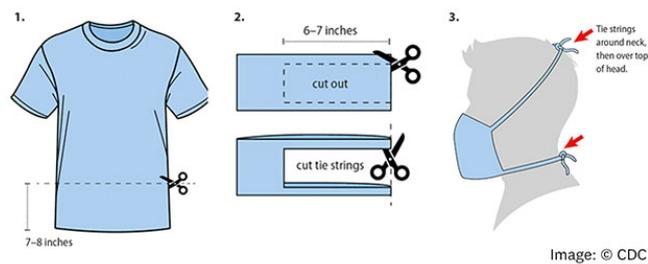
Making your own face mask



Making your own mask is another option and could be handy if stocks are running low elsewhere. You can either make one using a simple sewing pattern or opt for a version that doesn't require any sewing.

Making a no-sew face mask

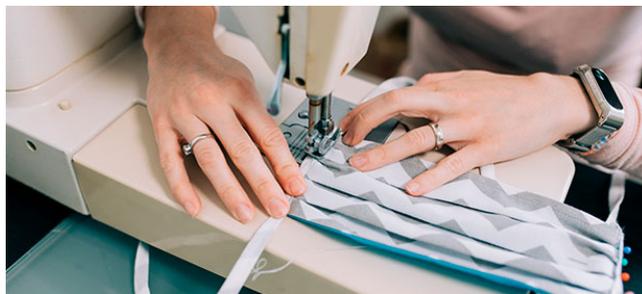
The Centers for Disease Control Prevention (CDC) [suggests two basic no-sew methods](#). One is done by cutting an old T-shirt and making ties from the fabric (see below).



The other is done by folding a piece of cloth such as a bandana or tea towel into a rectangle, placing rubber bands or elastic hair ties around the middle and folding the material in then hooking the elastics around your ears.

The UK government has now also published a [step-by-step guide to making your own mask](#).

Sewing your own face mask

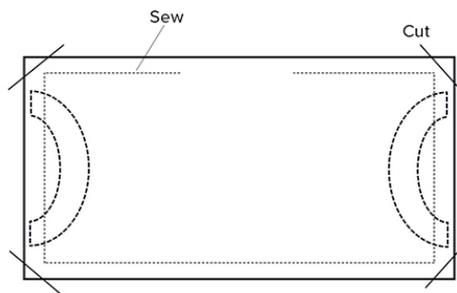


There are two main styles of cloth mask. Pleated rectangular versions that mimic a basic surgical mask, and a more curved, non-pleated design. The latter can be a bit more tricky to make, but there are patterns available online if you're keen to try your hand at it.

Here's a guide to making the pleated version from a retired pharmaceutical chemist we spoke to who has been making masks for the community since lockdown started.

Making your own mask at home: instructions

- Cut two pieces of cotton, washed and dried (For adults: 8in x 6.5in and for children: 7in x 5.5in).
- For the loops, cut two 6in pieces of elastic or T-shirt fabric.
- Start assembling the mask by laying the two rectangles, right sides facing, on top of each other.
- Pin the straps in place between the two layers on the inside, as shown below (when turned inside out they will be on the outside).



- Machine or hand sew round the outside, about 0.25in away from the edge, sewing in the straps, but leaving a 2in un-sewn gap along one of the longer edges.
- Cut off the corners and pull the mask inside out through the un-sewn hole and sew up the hole.
- Then iron in two pleats of about 0.25in on the shorter sides for the children's masks and three pleats for the adults, so that on wearing the sides are pulled into the sides of the face.

London designer Christopher Kane has also provided a face-mask pattern and instructions that [people can download and use for free](#).

What materials should you use to make a face mask?



The fabric, or combination of fabrics you use should balance a good level of filtration of viral particles, comfort when wearing and ease of washing.

Studies have found that tightly woven cotton is a good option for homemade face masks.

You can either buy fabric or use an old piece of clothing. Ideally, you want something breathable and comfortable that won't distort or stretch too much with repeated washing.

Filtration

Virus particles are miniscule, so a tightly woven fabric is best and it's a good idea to have multiple layers of different fabrics if possible.

A [Cambridge study](#) into the efficacy of homemade masks during an influenza pandemic found that a pillowcase and a 100% cotton T-shirt were the most suitable household materials for an improvised face mask in terms of filtering bacterial and viral particles.

As part of the study, volunteers were asked to cough while wearing different masks and found that homemade masks reduced the total number of microorganisms expelled when coughing.

The Hong Kong Consumer Council told us it recommends a three-layer system for homemade masks, with:

1. An outer layer, tightly woven or water-resistant if possible
2. A replaceable middle layer for filtration

3. An inner layer for moisture absorption and comfort against the skin.

Making sure your mask is comfortable



There's a trade-off between how well fabric blocks air particles and how well you can breathe – you should still be able to breathe comfortably when wearing your mask.

You also need a fabric that is soft enough to sit against your skin without irritation or discomfort.

You're more likely to fiddle with the mask if it's uncomfortable or doesn't fit properly, so it's important to get this right.

How to use a face mask properly

If you're going to use a face mask, it's crucial to take care to use, remove and wash it properly, otherwise you could end up increasing your risk of infection by touching your face more or contaminating the mask.

Putting the mask on

You should always wash your hands before putting on a mask, so popping it on in the car before you go to the supermarket, or taking it on and off when you go in and out of shops is a big no-no.

Ensure a good fit

- Make sure the mask covers your mouth and nose, and fits snugly without any gaps.

- The mask should fit from the top of your nose to under the chin and cover past the edges of your mouth on either side.
- It should fit comfortably but securely when in use and with normal head movements (this is important so you don't have to adjust the mask during use).
- If you have a beard, this will limit how close a fit you can get.

During use

- Avoid touching or adjusting the mask while using it – do not pull it down below your chin and back up while wearing it as this can transfer virus particles from the outside to your mouth and nose.



Removing your mask

- Replace the mask with a new one as soon as it's damp.
- To remove the mask, remove it from behind (don't touch the front or your face).
- After taking your mask off, drop it directly into a soap solution after use and wash it thoroughly.
- If your mask has a disposable filter, you should remove and bin this before washing your mask.
- Wash your hands afterwards.

If you need to, store used masks in a plastic bag until you have the opportunity to wash them. Ensure that if you set a used mask down on any surface, you also clean that surface.

Face masks and glasses: what you need to know

If you wear glasses, you may have issues with them steaming up when you wear a face mask. If this happens:

- Try and adjust the fit so it's tighter across your nose. A mask with nose wire may help.
- Raise the height of the mask so the weight of your glasses helps to hold it flush to your face.
- Try dipping your glasses in soapy water and letting them dry. This can help to prevent fog forming, although won't work on all glasses types as some have a special lens coating.

How to wash a face mask

For a cloth mask, a regular wash cycle or hand wash with detergent should be sufficient, and make sure the mask is completely dry before using it again.

Mask manufacturers should also give some basic washing instructions and there may be some specific requirements based on what material is used, so check this when you buy.

You should make sure you have a few masks so that you can wear a fresh one while another is being washed.

See our [guide to how to protect yourself and others](#) for advice on social distancing, hand hygiene and more.