How to Safely Wear and Take Off a Cloth Face Covering

WEAR YOUR FACE COVERING CORRECTLY

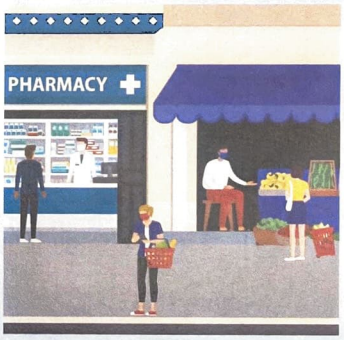
- Wash your hands before putting on your face covering
- Put it over your nose and mouth and secure it under your chin
- Try to fit it snugly against the sides of your face
- Make sure you can breathe easily
- Do not place a mask on a child younger than 2

USE THE FACE COVERING TO PROTECT OTHERS

- Wear a face covering to protect others in case you're infected but don't have symptoms
- Keep the covering on your face the entire time you're in public
- Don't put the covering around your neck or up on your forehead
- Don't touch the face covering, and, if you do, clean your hands

FOLLOW EVERYDAY HEALTH HABITS

- Stay at least 6 feet away from others
- Avoid contact with people who are sick
- Wash your hands often, with soap and water, for at least 20 seconds each time
- Use hand sanitizer if soap and water are not available



TAKE OFF YOUR CLOTH FACE COVERING CAREFULLY, WHEN YOU'RE HOME

- Untie the strings behind your head or stretch the ear loops
- Handle only by the ear loops or ties
- Fold outside corners together
- Place covering in the washing machine
- Wash your hands with soap and water

Cloth face coverings are not surgical masks or N-95 respirators, both of which should be saved for health care workers and other medical first responders.

For instructions on making a cloth face covering, see: **cdc.gov/coronavirus**

CS 316439A 04/30/2020

Symptoms of Coronavirus (COVID-19)

Your symptoms can include the following:

If you have COVID-19, you may have mild (or no symptoms) to severe illness.

Symptoms can appear 2-14 days after you are exposed to the virus that causes COVID-19.

Seek medical attention immediately if you or someone you love has **emergency warning signs**, including:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or not able to be woken
- Bluish lips or face

This list is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning.

cdc.gov/coronavirus

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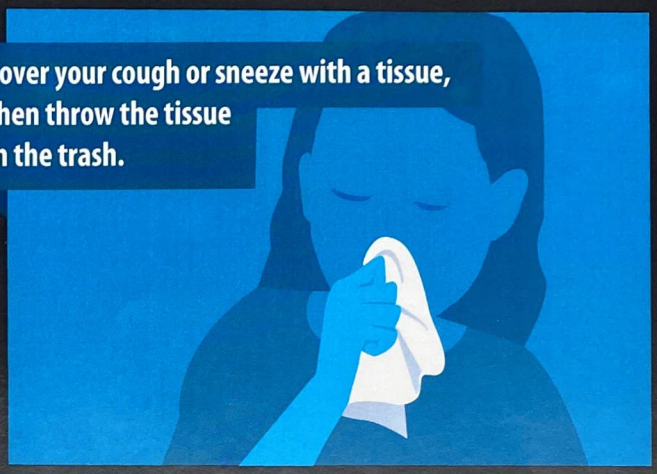
Stop the Spread of Germs

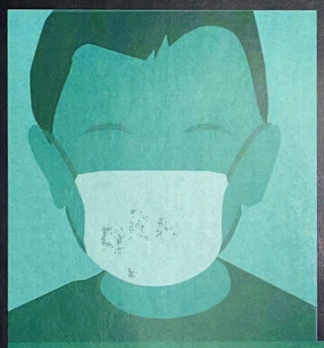
Help prevent the spread of respiratory diseases like COVID-19.

Avoid close contact with people who are sick.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

Avoid touching your eyes, nose, and mouth.



When in public, wear a cloth face covering over your nose and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

CDC

cdc.gov/coronavirus

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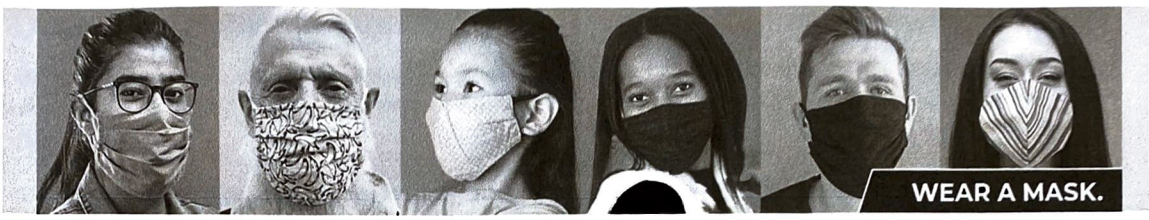


When to Quarantine

Stay home if you might have been exposed to COVID-19

Updated Dec. 4, 2020 Print

Local public health authorities determine and establish the quarantine options for their jurisdictions. **Quarantine** is used to keep someone *who might have been exposed to COVID-19* away from others. Quarantine helps prevent spread of disease that can occur before a person knows they are sick or if they are infected with the virus without feeling symptoms. People in quarantine should stay home, separate themselves from others, monitor their health, and follow directions from their state or local health department.

Quarantine or isolation: What's the difference?

Quarantine keeps someone who might have been exposed to the virus away from others.

Isolation keeps someone who is infected with the virus away from others, even in their home.

Who needs to quarantine?

People who have been in close contact with someone who has COVID-19—excluding people who have had COVID-19 within the past 3 months.

People who have tested positive for COVID-19 do not need to quarantine or get tested again for up to 3 months as long as they do not develop symptoms again. People who develop symptoms again within 3 months of their first bout of COVID-19 may need to be tested again if there is no other cause identified for their symptoms.

What counts as close contact?

- You were within 6 feet of someone who has COVID-19 for a total of 15 minutes or more
- You provided care at home to someone who is sick with COVID-19
- You had direct physical contact with the person (hugged or kissed them)
- You shared eating or drinking utensils
- They sneezed, coughed, or somehow got respiratory droplets on you

Steps to take

Stay home and monitor your health

- Stay home for 14 days after your last contact with a person who has COVID-19.
- Watch for fever (100.4°F), cough, shortness of breath, or other symptoms of COVID-19

Options to reduce quarantine

Reducing the length of quarantine may make it easier for people to quarantine by reducing the time they cannot work. A shorter quarantine period also can lessen stress on the public health system, especially when new infections are rapidly rising.

Your local public health authorities make the final decisions about how long quarantine should last, based on local conditions and needs. Follow the recommendations of your local public health department if you need to quarantine. Options they will consider include stopping quarantine

- On day 10 without testing
- On day 7 after receiving a negative test result (test must occur on day 5 or later)

After stopping quarantine, you should

- Watch for symptoms until 14 days after exposure.
- If you have symptoms, immediately self-isolate and contact your local public health authority or healthcare provider.
- Wear a mask, stay at least 6 feet from others, wash their hands, avoid crowds, and take other steps to prevent the spread of COVID-19.

CDC continues to endorse quarantine for 14 days and recognizes that any quarantine shorter than 14 days balances reduced burden against a small possibility of spreading the virus. CDC will continue to evaluate new information and update recommendations as needed. See Options to Reduce Quarantine for Contacts of Persons with SARS-CoV-2 Infection Using Symptom Monitoring and Diagnostic Testing for guidance on options to reduce quarantine.

Confirmed and suspected cases of reinfection of the virus that causes COVID-19

Cases of reinfection of COVID-19 have been reported but are rare. In general, reinfection means a person was infected (got sick) once, recovered, and then later became infected again. Based on what we know from similar viruses, some reinfections are expected.

Last Updated Dec. 4, 2020

The New York Times | https://nyti.ms/39Ycq3p

A User's Guide to Face Masks

By now you've figured out that wearing a mask is not as simple as all those TV doctors made it look. Here's our guide to the wear and care of your new mask.

By Tara Parker-Pope

Published April 10, 2020 Updated April 21, 2020

Here's everything you need:

- The Case for Masks
- The Dos and Don'ts of Masks
- Choosing or Making a Mask
- How to Take Care of a Mask

The Case for Masks

Overnight, masks have become a symbol of social responsibility. If you still need convincing, here's why you now should be wearing a mask in public spaces to prevent the spread of the coronavirus.

Why masks matter more for this coronavirus

To start, this coronavirus is a new virus, which means our immune systems have never encountered it before. It's different from the seasonal flu, which most of us have some protection from, either because of previous exposure to related influenza viruses or because we got a flu shot. One of the biggest worries is that health workers, who get vaccinated to stay well during flu season, have no protection from coronavirus.

It's also important to note that the flu season happens over a period of several months. Coronavirus has spread much more rapidly, infecting a concentrated number of patients — and resulting in tens of thousands of cases of Covid-19 — in a matter of weeks.

An estimated 25 percent of people with coronavirus feel perfectly fine and don't know they are infected and could be contagious. And guess what? You could very well be one of them! That's why you should wear a mask to protect other people from your stealth germs.

How your mask could protect others

Even a simple mask is *very* effective at trapping droplets from your coughs and sneezes. A recent study published in Nature from the University of Hong Kong and the University of Maryland asked 111 people, infected with various viral illnesses (influenza, rhinovirus and a more-mild coronavirus), to exhale into a giant funnel. Sometimes their noses and mouths weren't covered; other times they used a simple, not-particularly-well-fitted mask.

Without the masks, the infected people exhaled contagious droplets and aerosols, tiny particles that linger in the air, about 30 percent of the time they were tested. When the infected patients wore a mask, it blocked nearly 100 percent of viral droplets and some of the aerosol particles.

"If we look at all the results together, we found that masks were able to stop most virus-laden respiratory droplets and some of the virus-laden aerosols," said Ben Cowling, at the School of Public Health of the University of Hong Kong, and the study's senior author.

How your mask could protect you

While we know that even a simple mask does a pretty good job of protecting the world from your outgoing germs, experts say there is more variation in how much homemade masks might protect you from *incoming* germs, depending on the fit and quality of the material used.

But the thing is, you don't need a super-efficient mask if you're practicing social distancing and washing your hands. And if you use a fabric with decent filtration potential — like two layers of heavy cotton or flannel — and you wear the mask properly, you increase your chances of avoiding the virus.

The bottom line is that when you practice social distancing, wash your hands *and* wear a mask during those times when you must leave the house, you are lowering your risk for getting sick.

Your mask makes everyone else's mask look normal

In parts of Asia, where communities have dealt with serious contagions like SARS and MERS, wearing a mask isn't considered weird. In fact, it's expected. The more everyone wears a mask, the more accepted mask wearing will become.

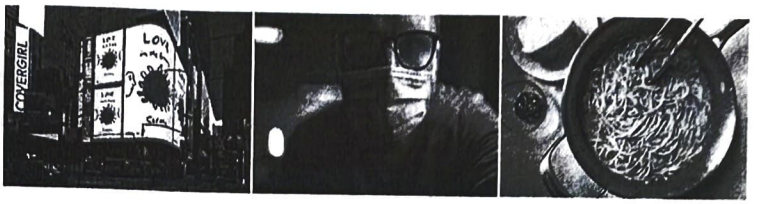
"If everybody has to wear a mask, there's no stigma," said Shan Soe-Lin, a lecturer at the Yale Jackson Institute for Global Affairs. "I would like to see it change social norms. In Hong Kong, it's a good thing to see someone in a mask. If you're sick, you put a mask on. You're kind of rude to be coughing without a mask on.

The Dos and Don'ts of Masks

To get the most out of your mask, make sure you wear it correctly and at the right time.

Ideas from The Times on what to read, cook, watch,

play and listen to while staying safe **At Home**.



How to put a mask on and take one off

Always wash your hands first. Don't touch the fabric part of the mask — that's essentially the germ filter, and you don't want to spread whatever germs it has trapped. Use the ear loops or ties to secure your mask and to remove it. The coverage area should go from near the bridge of your nose to down under your chin and stretch about halfway or more toward your ears. Pull the ties and loops so that it fits as snugly as possible against your face. If your mask has pleats, the folded side should be down.

Don't try to cheat the mask

The writer Peter Hessler, who recently wrote about life in lockdown in China for The New Yorker, created names for the various ways in which people take breaks from masks while wearing them as a way to explain the right and wrong ways to wear a mask to his daughters. The "holster" is a mask pulled down and resting on the neck. The "flap jack" happens when a person takes one ear loop off to talk on the phone. And then there's the "low rider." "This is when you pretend that you are obeying the rules, but actually tug the mask down so that your nostrils are uncovered," he said. All can make the mask far less effective in protecting against germs.

To learn more, read our guide How NOT to Wear a Mask.

The risk of wearing a mask

In theory, fidgeting with a mask could introduce germs to your face, but if you're touching your face that much, you are greatly increasing the risk of getting sick anyway.

But the real worry about wearing a mask is that you start to believe it's protecting you more than it really is. Behavioral economists know that when people begin to feel safe, they take more risks. It's a phenomenon seen when federal regulations first made cars safer with added features like seatbelts, and people responded by driving more recklessly. When doctors wear decontamination gowns, studies show they may become more lax about safety protocols. When communities in Mexico began outdoor mosquito spraying to combat dengue fever, families were less likely to adopt personal prevention practices.

Masks do make us feel safer, but any benefit of wearing a mask will be quickly negated if we lose our resolve about social distancing and hand washing. Don't start lingering in grocery stores or spending time with friends because you are wearing a mask. A mask alone will not protect you from the coronavirus.

Do I need to wear a mask outdoors?

The recommendation is to wear a mask at all times in public spaces because we don't know who has the virus and who doesn't. It's also more socially responsible to wear a mask, even if you're outside.

"It's the signal as well as the actual risk," said Dr. Siddhartha Mukherjee, assistant professor of medicine at Columbia University. "If we're going to deploy this, I would urge people to stay on the side of caution and send the social message that we don't know who has it, and no one in particular is the exception to the rule. We should do this as universally as possible."

Do I need to wear a mask during outdoor exercise?

In general, outdoor exercise, with or without a mask, seems to be safe, according to most experts. Researchers cautioned that little is known about heavy breathing during aerobic exercise and how it affects viral spread. Phys Ed columnist Gretchen Reynolds has all the suggestions and cautions in Exercising Outdoors With a Face Mask.

What if my child refuses to wear a mask?

Masks should not be worn by children under 2 years of age. But older children often are vectors of contagious illnesses, so teaching them to wear a mask is a good idea.

Teaching a child to wear a mask, however, is easier said than done. Many children are frightened of masks or just don't like them. Keep working on it. You can try to win a child over with fun characters on the mask, rewards or games. You can also convince them by setting the example yourself (the same concept works when your children see you eat vegetables.) Try turning the mask into a craft project that they can wear proudly.

Mask or no mask, children should never go with you to the grocery store or to run essential errands during the pandemic. Community playgrounds are closed (or should be), so outdoor play should be confined to the back yard. If your children need to play in a public space, go somewhere you can easily keep your distance from other people, like an empty soccer field or a sparsely populated hiking trail so that their refusal to wear a mask doesn't affect other people.

Dealing with Foggy Glasses

Wearing a mask can send warm breath to your glasses and cause them to fog. You can try to seal the top of your mask, try various anti-fog treatments for lenses or adjust the way you wear your glasses. You can learn all the tips and tricks for avoiding glass fog here.

When to wear a mask at home

A mask is only needed in the home if someone is sick. The patient should be confined to a separate room with no or minimal contact with the rest of the household (including pets) and should use a separate bathroom if possible. Both patient and caregiver should wear masks when in contact with each other.

Choosing or Making a Mask

Almost overnight, masks of all shapes, colors and styles have appeared on the faces around us. Here's how to decide what mask works best for you.

Types of masks

N95 respirator masks: These masks fit tightly to the face and have the highest filtration efficiency, blocking 95 percent of particles of 0.3 microns or larger. An N95 mask protects medical workers who come into contact with high doses of the virus while visiting and carrying out medical procedures on multiple patients. The rest of us don't need that level of protection, so these masks should be reserved for health care workers only. To learn more about how these masks work, check out this video animation from the Arizona State University Risk Innovation Lab.

Medical masks: These are also in short supply and should be used only by medical workers. Sometimes called surgical masks or procedure masks, these masks are those rectangular shaped coverings (often pleated) that come with elastic ear loops. Medical masks are made of a paper-like nonwoven material, and are often given to a coughing patient waiting to see a doctor. Compared to the N95 mask, a medical mask filters about 60 to 80 percent of particles and, according to the Food and Drug Administration, mostly blocks "large-particle droplets, splashes, sprays or splatter that may contain germs."

Homemade fabric masks: The Centers for Disease Control and Prevention recommends we cover our faces with a scarf or homemade fabric mask when we are in public. The effectiveness of homemade masks varies depending on the fabric used, the style and the fit.

In laboratory tests, some homemade masks did a poor job, while others rivaled the filtration of a medical mask. In another study, 21 people made their own masks out of T-shirts, and researchers compared the homemade masks to medical masks. "Both masks significantly reduced the number of microorganisms expelled by volunteers," although surgical masks were better, wrote the study authors. In community studies, homemade masks were found to offer some protection during viral outbreaks.

You can sew a mask using a number of mask patterns circulating on the internet or try a no-sew pattern. We've included links to both in this guide, under "How to make a mask," below.

Picking a material to make your own mask

Remember, any face covering is better than no face covering. While some people are experimenting with homemade masks using air filters and vacuum bags, the average person doesn't need that level of protection if you're practicing social distancing and leaving the house only for essentials. Given that there is so much variability in fabrics, the best advice is to start with a light test. Hold the fabric or mask up to the light and see how much light gets through. The tighter the weave, the less light you'll see, and the more protection you'll get. Test the fabric over your face to make sure you can still breathe through it, though.

Because of a shortage of masks, aerosol scientists around the country have been testing everyday materials to see how well they might work in a homemade mask. Most of the time, they have compared the amount and size of particles filtered to the standard used for medical masks — 0.3 microns. However, an often-cited 2013 study from University of Cambridge used a different standard, testing two layers of materials using particles of about 1 micron. Linsey Marr, an aerosol scientist at Virginia Tech, notes that while the 0.3 micron test is a higher standard, the 1 micron test still can be useful in helping people make decisions about mask materials. "There are probably a lot more viruses in 1 micron droplets/aerosols than

in 0.3 micron droplets/aerosols," said Dr. Marr. "So even if a mask only removes 20% of the droplets/aerosols that are 0.3 microns in size, it probably does better with the 1 micron droplet/aerosols,materials testing."

Here's a look at some of the everyday products that have been studied for homemade masks. You can find more information in our story, What's the Best Material for Mask?

T-shirts: Most of us have an old T-shirt we could cut up into a no-sew mask. It's one of the most convenient fabrics to use, but there is a lot of variability in how well T-shirt material performs in lab tests. At the Virginia Tech, a single-layer of an old cotton T-shirt captured 20 percent of particles down to 0.3 microns. It captured 50 percent of particles down to 1 micron. A 2013 University of Cambridge study tested two layers of T-shirt which captured about 70 percent of particles down to 1 micron.

Cotton quilting fabric: This is the high-thread-count cotton fabric preferred by quilters for its durability. In studies at Wake Forest Baptist Health, masks made with quilting fabric rivaled the filtration efficiency of surgical masks.

Tea towels: Tea towels became a popular source of mask material after an August 2013 study from researchers at University of Cambridge found the material compared well to a medical mask at the 1 micron particle size. The study authors did not note the brand. The towel used was not terry cloth, but the tightly-woven absorbent tea towel variety.

Pillow cases: Pillow cases are a good option for sewers who don't have other fabric. In the 2013 study, 2 layers of pillow case fabric tested close to the efficiency of a surgical mask at the 1 micron standard, but in a study at Missouri University of Science & Technology, it took four layers of 600-thread-count pillow case material to achieve that level of protection at the 0.3 micron standard.

Flannel pajamas: A two-layer mask of flannel and cotton was one of the best tested in the Wake Forest Baptist study and rivaled the efficiency of a surgical mask

Coffee filters and paper towels: The C.D.C. suggests inserting a coffee filter into your mask for extra protection. Missouri University of Science & Technology scientists found that using three coffee filters made it difficult to breathe. Adding a layer of paper towel in between two layers of fabric could make your homemade mask more efficient. An engineer at an air purifier firm ran his own test and found a single paper towel filters 23 percent of 0.3 microns and two paper towels filtered 33 percent. We added a paper towel to our homemade T-shirt mask.

Scarves and bandannas: When it comes to ease of use, you can't beat a scarf or bandanna to cover your face. But bandannas are thin and, even folded over four times, don't offer much protection. Scarves may be better but can be thick and hot. Both are better than nothing.

Filters and vacuum bags: Scientists trying to find effective alternatives for medical workers have cut up layers of air filters and tested HEPA vacuum bags. Both can work quite well, but both have significant downsides. Air filters, when cut up, can release fibers that can be dangerous to inhale, so the filter material should be sandwiched between layers of heavy cotton fabric if used in a mask. Vacuum bags are good filters but not that breathable. Plus, some brands of vacuum bags may contain fiberglass so should not be used to cover your face.

How to make a mask

You can find a variety of sewing patterns and no-sew mask ideas online. The U.S. Surgeon General has created a video for an easy no-sew mask. People have made no-sew masks out of stretchy boxer shorts and two folded paper towels. Jiangmei Wu, a paper artist and assistant professor of interior design at Indiana University, offers a pattern for making a paper mask, as shown in this video. Or try this ninja mask a mom made for her son with a long-sleeved T-shirt. The Mask4All website also has several mask ideas.

If you can sew, The Times Style section has provided instructions for a simple mask pattern that can be downloaded.

Or check out The Times video showing how to make a no-sew mask using a T-shirt.

How to Take Care of a Mask

Now that you've got a mask, you need to take care of it. Here's some advice about washing and reusing your mask.

Can I reuse my medical mask?

Medical masks and N95 masks should be saved for medical workers, but if you have a medical mask, you should know that it was designed for one-time use. However a number of scientists, led by a group at Stanford University, are studying the best way to sanitize masks to extend the life of the personal protective equipment used by medical workers during the current shortage.

The problem is that washing or sanitizing a medical mask will degrade it, making it less effective. Scientists have found that using UV light, heat and humidity or a hydrogen peroxide vapor could work, but the methods are developed for use in hospitals with special equipment and are not for home use. You can learn more in our story about efforts to decontaminate thousands of medical masks.

"I would be wary of putting them in the oven because of the potential to reach too high a temperature and melt the plastic fibers, thus damaging the mask," said Linsey Marr, a leading aerosol scientist at Virginia Tech who has been studying ways to extend the life of medical masks. "Studies on other viruses show inactivation at about 150 degrees Fahrenheit, which is lower than many ovens can go. But that's with high humidity, and the humidity makes a big difference. If you have an oven that can hit 150 degrees and you put a pan of water in there, this could be effective, but nobody has tested the method on this specific virus."

If you have multiple masks, the best strategy is to rotate use of the masks over several days, which gives time for the virus to die. For medical workers, one strategy is to keep a set of five masks, so they can wear a new mask every day and return to the first mask on the sixth day.

"The safest thing to do might be to put the mask somewhere safely out of reach," said Dr. Marr. "Over a few days, the viruses should decay. In fact, studies have found that viruses usually decay faster on fabric and other porous materials than on hard materials like steel or plastic."

How do I care for my fabric mask?

It's much easier to clean a fabric mask than a medical mask. The C.D.C. says fabric masks should be "washed routinely." The mask experts I spoke with wash theirs daily in a machine or a sink, just using regular laundry soap. You can use the dryer or let it air dry. Although it's not necessary, you can also go over it with a hot iron for a full assault on any germs that might remain.

Just as with a medical mask, chemicals like bleach or hydrogen peroxide will begin to degrade the fabric fibers, making the mask less effective. Dr. Marr notes that a virus can't replicate outside the body, and if virus particles have been trapped by the mask, they are pretty well stuck there and will decay or be removed during washing.

"Washing with soap and water should work," Dr. Marr said. "I throw my cloth mask in the washing machine with the rest of the laundry and dry it on low heat. I would avoid bleach because we know that can degrade fibers. The important thing is to avoid damaging the fibers in the mask."