

FAQ: Facemasks: Good or Bad?

Short Answer:

- N95 masks are not necessary for non-medical staff, including veterinarians, working with healthy people. They are for use by human medical staff caring for sick patients.
- Cloth masks aren't as good at preventing respiratory infections in healthcare settings as commercial paper masks, but are better than nothing.
- For the rest of us, there is some evidence that cloth masks may help when you are unable to keep social distance. They may prevent you from touching your face with contaminated fingers, provide some protection from droplet transmission, and act as a reminder to others to take care.
- Send your N95, N99 and extra surgical masks to human hospitals. You could save a life.

The details:

There is a loud debate right now about whether face masks help or do nothing against the spread of Coronavirus. For example, a [National Review article](#) argues that masks might be a factor in Japan's relatively slow spread, and according to [many news sources](#), the CDC is currently considering recommending the general public wear masks. Meanwhile, the [WHO recommends](#) only wearing a mask if you are caring for an individual suspected of Covid-19 infection.

With a severe shortage of all types of medical-grade PPE, certainly N95 and N99 respirator masks (the round puffy type that "absorb X% of airborne particles") **should not be worn** by anyone outside of an at-risk human medical setting. If you have a supply of N95 masks, *please* contact your nearest healthcare provider or public health department to [arrange a donation](#).

Many people with essential functions in our communities need access to fit-tested N95 *or* high-grade surgical masks (the square-pleated type.) This group of at-risk workers includes home healthcare workers, animal control officers, EMT, law enforcement and fire personnel, who will be entering the homes of people infected with Covid-19. Janitorial staff at human hospitals, pharmacists, and nurses managing pop-up clinics will be attending Covid-19 infected people in our communities and need reliable medical-grade protection. The [CDC recommends](#) that people who are in official quarantine (waiting 14 days after exposure to a known or suspected Covid-19 case) wear surgical masks when within 6 feet of others or when leaving their house for essential activities.

If everyone went out and bought disposable surgical masks right now in anticipation of the new CDC recommendations (even if they could find them) it's possible that medical professionals on the front lines would then have to go without (and then have to rely on [bandanas or scarves](#)?) And that is a terrible thought. Don't do it.

Cloth masks, whether made at home or commercially, are less reliable at stopping the spread of respiratory illnesses. A [British Medical Journal study in 2015](#) during an influenza outbreak in Hanoi found that their cloth masks trapped a lot of moisture, got dirty quickly, and failed to

stop most infectious particle from penetrating. A [2013 study in Disaster Medicine and Public Health Preparedness](#) tested multiple different fabrics for filtration and ease of breathing. They then tested 100% cotton masks, which have a 50% viral aerosol filtration efficacy and a moderate pressure gap; the cotton masks did prevent bacteria from escaping volunteers' mouths when coughing, but not quite as well as surgical masks. Since droplet transmission wasn't measured in either study, we don't know how well these masks stop that- but [probably fairly well](#). Finally, a [2009 study in Particle Fibre Toxicology](#) found that some [cycling masks](#) may also work just as well as surgical masks if you already have one, but are (not surprisingly) now completely unavailable. Recent innovations in cloth mask design, including the insertion of [absorbent filters](#), and making masks out of [surgical wrap material](#) have also been advertised widely, but no reliability, fit, or penetration testing has been performed.

But there are public health benefits to wearing cloth masks beyond the stopping of fine droplet particles coming into or out of your mouth. One of the big benefits of wearing a mask is that it may help you [not touch your face](#), perhaps the most important route of Covid-19 transmission according to [Dr. David Price](#), a Weil Cornell MD. A cloth mask is certainly appropriate for essential personnel working in animal shelters and vet clinics, especially when you can't avoid being within 6 feet of a coworker. Emergency veterinary surgery, food service work, and most construction and building tasks are appropriate with cloth masks, as long as you still wash your hands! Taking the time to make a mask (or 300) may help keep you occupied and feel useful while you stay home. Wearing one out is a signal to others that are aware of your role in this pandemic. And giving one away to a friend, neighbor, or relation is a sign that you care.