



COVID-19 Protective and Preventive Tips to Share with Your Patients

HELP PREVENT THE SPREAD OF THE VIRUS

By Keith Jantz, MD

As the COVID-19 pandemic continues, the public thirst for useful information regarding how to deal with this virus and protect oneself and family remains unsatisfied. Sure, the daily news provides numbers like case rates, new cases and even numbers of deaths locally, nationally and worldwide. But this information in the presence of a well-recognized pandemic is useless to the individual even though such numbers appear on our phones and on TV multiple times a day. What the public and our patients need is useful information about how to protect themselves from the ravages of this virus.

Awaiting prospective randomized trials to determine best practices in these areas would be ideal in the strictest scientific and medical sense, but unrealistic in the middle of a pandemic producing daily deaths in high numbers. Instead we must rely on “natural experiments” as Anopam Jena, MD, PhD, professor of health care and policy at Harvard University has stated.^{1,2} Natural experiments are retrospective observations resulting in useful data gleaned from public experiences with this virus, which provides a better method to answer individuals’ many questions surrounding management of this pandemic.

Regarding daily approaches to protecting oneself, the concepts fall into several categories: 1) preventing exposure to the virus; 2) mitigating the effects of COVID-19 infection if acquired; 3) preventing spread to others; and 4) managing pre-existing chronic personal health problems in the midst of this pandemic.

Of course, preventing exposure to the virus involves two areas: aerosol contamination and contact contamination. Experience in many different areas of the country reveals that case numbers are lower in states where public adherence to mask wearing is higher, either voluntarily or by government mandate.



N-95 non-vented masks



Surgical masks



Cloth masks

HOW TO MASK EFFECTIVELY

While health experts repeatedly advocate mask wearing, little is reported about the efficacy of various mask techniques.

- **N-95 non-vented masks** provide the best protection. Such masks are readily available at numerous retail stores in the metropolitan area. They are no longer in short supply, nor do they need to be reserved only for frontline health care workers.
- The next best option would be any **surgical mask** or medical paper mask, which can be made more efficient by utilizing a double thickness of two masks stapled together.
- More popular among the public are **cloth masks**, which provide less protection; or bandanas and gaiters, which provide the least protection and should be avoided.

In the event of potential contamination of a cloth mask, washing is recommended, but this weakens the safety of the mask as the fibrous pores enlarge with repeated washings. To avoid this problem with cloth masks, a person should own at least three cloth masks and rotate these every two days. Should a cloth mask become contaminated with COVID-19, the virus can be destroyed by simply allowing the mask to dry out for two days. This process can be accelerated by placing the mask in sunlight to allow the UV rays to kill the virus more rapidly.

Needless to say, covering the nose and not touching the mask are two safety measures that are not emphasized enough. Individuals should make every effort to

THE RIGHT WAY TO WEAR SURGICAL MASKS



WRONG



CORRECT

adhere to this practice whenever out in public.

EYEGASSES AND FACE SHIELDS

We now have some “natural experiments” based on public data that indicate a protective effect of eyeglasses for preventing transmission. Since the beginning of this pandemic, **clear face shields** have been employed by health care workers to prevent eye contamination. Now we have data that shows that people who wear **eyeglasses** are less likely to be infected by aerosol contamination of the eyes. Thus, if one enters a high-risk area such as a bar, subway, bus, airplane, etc., wearing any eyewear like glasses, sunglasses or mechanical eye protection lowers one’s risk and is again a simple measure to enhance protection.

Also, clear total face coverings are becoming more popular as they allow others to view one’s entire facial expressions. These face shields are excellent for protecting the eyes from contamination but do NOT protect the nose and mouth from aerosol viral particles, which are easily breathed in from the side. Whenever health care workers utilize the clear face shield to protect the eyes, they also wear a

second mask over nose and mouth, either a surgical or N-95 mask. Using only a clear total face shield with open sides does NOT protect one in close areas like bars, restaurants and retail establishments. Use a good mask over the nose and mouth or use both if you are so inclined.

AVOIDING CONTAMINATED SURFACES

Contact contamination remains an area where official recommendations have been confusing and variable. We need to emphasize to patients that even if a surface is severely contaminated, an individual will NOT be infected unless that virus somehow makes it to one’s nose, mouth, or eyes. **Hence avoiding touching the face while in public becomes essential.** This is a second benefit of masks, but one must keep from readjusting the mask to avoid contaminating it by hand contact. Always carry a hand sanitizer, use the store sanitizer upon entering AND upon leaving any store or public facility. Always wash your hands with soap and water immediately upon entering your own home. Always wash your hands in a restaurant just before you start to eat anything.

Some other simple wise actions can

reduce the risk of contact contamination. Turn off any public faucet with your elbow, not your just-washed hands. Do not push the door open upon leaving a public area. Rather turn around and back yourself through the door holding it open for other family members without touching it with your hands. **The fewer surfaces you touch in public places, the lower your risk.** And don’t rely on businesses that claim to sanitize surfaces. Unless the surface is sanitized correctly after each person touches it, the contact transmission risk remains. Most businesses are doing this only hourly, if at all.

Indoor dining continues to present an increased risk for aerosol transmission of the virus. If you must dine indoors in a public establishment, some simple measures will reduce (but not eliminate) your risk. Keeping a mask on as much as possible will reduce the amount of time you breathe ambient air, thereby reducing the load of virus you might be exposed to if another patron is actively spreading the virus. Keep a mask on until your food arrives and replace the mask immediately upon finishing your meal. You may even want to drink with a straw by slipping it under your mask, thereby reducing exposure time to ambient possibly contaminated air.

PREVENTIVE STEPS

Because this virus is ubiquitous and numbers are rising, the real possibility exists that most of us will be infected with COVID-19 sooner or later, maybe even months or years from now. Given the fact that some healthy people die or suffer major disability from this disease and other elderly high-risk people are not affected by it, some unknown factors play a significant role in how our bodies react to this infection.

While some of these factors are yet

to be determined by medical science, the “natural experiments” that have occurred within the public provide us with clues as to how to mitigate the effects of this virus should one become infected.

One helpful supplement is **Vitamin D**, which is well known to improve immune status in individuals. Studies in China and other countries reveal that people who are Vitamin D deficient have poorer outcomes when infected with COVID-19.³ Since Vitamin D deficiency is fairly common in the U.S., taking this supplement prophylactically is a wise, safe, inexpensive approach to boost one’s immune status and reduce the chance of serious complications from getting the COVID-19 infection. Recommended dosage will vary but should be 400IU daily as a minimum.

Also taking **zinc** as a supplement appears to provide some protection.⁴ A paper published by NIH last year points out that zinc can be effective in reducing the effects of human viral infections by both improving the patient’s immune response to a viral infection and by impeding viral replication during the infectious process.⁷ Since zinc is available at low cost OTC, adding this supplement also represents an easy way for patients to enhance protection against severe complications from this viral infection.

Famotidine (Pepcid) OTC also appears to help prevent the dangerous sequelae of COVID-19 infections by acting as a histamine antagonist by inhibiting mast cell release and thereby mitigating the risk of cytokine storm. Since this drug has few side effects, is inexpensive and available OTC as a generic, a recommendation to start this medication early on in COVID-19 infections or asymptomatic positive testers would be wise to help prevent severe complications after one gets the infection.⁵ Patients with chronic diseases or taking prescription medications should consult

with their physician prior to adding these OTC meds to their daily regimen.

CONTINUE MEDICATIONS AND GOOD HEALTH PRACTICES

Many people currently manage chronic health conditions with medication, diet and other measures to maintain good health. Such efforts, particularly taking medication, daily exercise and routine physician visits, should not be suspended or altered due to the pandemic. With regards to medication, no changes should be made in taking regular medicines without consulting first with one’s physician.

Early in the pandemic, a United Kingdom physician recommended stopping ACE inhibitors and ARB medications (both commonly taken in people with high blood pressure or diabetes) in order to prevent serious complications from COVID-19 infections. However, more recent data indicate this is not necessary. Many cardiologists recommend continuing these medications if they have been prescribed by one’s physician.

Also some limited data exists indicating that statin medications taken usually for high cholesterol may also provide some protection in COVID-19 infections.⁶ Hence, an individual would be wise to continue taken a statin medication unless advised by their physician to discontinue it.

CONCLUSION

As this pandemic progresses, medical knowledge regarding ideal management techniques continues to evolve. Although we don’t have time to wait months or years for “proof” that certain activities work or don’t work against this virus, we can draw on useful information from the “natural experiments” that have occurred in the public realm to identify a best practices approach to protecting ourselves from this deadly virus. So be wise. Use the best ideas

mentioned to protect yourself and your loved ones. ☺

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