

NEWS RELEASE

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The "WHY" of Wearing Masks and Limiting Crowd Sizes

Sterling, Colo. – May 22, 2020: As our counties begin to re-open and we have access to more options and opportunities, it is exciting to start participating and doing some normal things again. However, participating in a cautious way is important. It's good to remember that COVID-19 is a new virus that scientists have not seen before, it is highly contagious without a cure and is still very much in our communities. We have all heard this statement, "wear your mask and stay back 6 feet" in every article and from every television report, but WHY? Here is the WHY behind masks and social distancing.

COVID-19 is transmitted mostly through person-to-person contact from respiratory droplets that are created as an infected person coughs, sneezes or even while they are just talking. Each of these droplets can potentially carry copies of the virus. When an infected individual doesn't use any sort of barrier, like a mask, it is possible for their droplets to come into contact with mucous membranes in the noses and mouths of other people near them. Some of these

droplets are so small that they behave like an aerosol that suspends in the air and can travel with air currents. These very small droplets can even be inhaled deep into the lungs and lead to infection. A New England Journal of Medicine study found that these aerosols can remain airborne and viable for up to 3 hours.

Then there is the dosage. The amount of virus necessary to make someone sick is referred to as the infectious dose, which is the number of particles of the virus a person has to be exposed to in order to cause illness. It is still unknown exactly what the infectious dose is, but researchers suspect it's as low as 1,000 copies of the virus.

As more things begin to open up in our communities, it is still important to be mindful of ways in which we can limit the potential dose of the virus that we may be exposed to. This is really accomplished by utilizing barriers such as masks or the plexiglas shields that you see in many stores, by continuing to maintain at least 6 feet of distance from other people, by reducing the duration of time that you spend in public around other people, and by washing your hands as well as cleaning surfaces. New evidence does show that while surface contamination isn't a primary route for infection, don't forget that the goal is still to limit the dose of the virus that we are exposed to.

We all know that the CDC originally recommended that healthy people not wear masks. As we have learned more about this virus and how it is transmitted, it has become clear that masks actually do a good job of trapping these respiratory droplets and helping to prevent infection. Just as they help stop someone who is contagious from spreading their germs to others, masks also work to reduce the

exposure of healthy people to viral particles that may be hitchhiking on droplets in the air around them.

None of these things are 100% effective by themselves, and they don't need to be. But by being diligent about all, we are able to actively reduce our exposures and diminish the potential of becoming infected, while still being able to take advantage of more normal daily activities.

We know that when people are exposed to higher doses of the virus, either all at once or over a period of time, this can lead to worse outcomes medically. Once a person becomes infected the virus begins replicating in their body and can be measured by what is known as the viral load. Typically, the higher the viral load, the more infectious a person may be and the sicker they will likely become.

So because it is safe to assume that exposure to higher doses, or even frequent lower doses over time can lead to worse health outcomes, we have to remember that there are still dangers when we are around large groups of people that are talking and laughing in enclosed spaces. These are the reasons why caution and a lot of effort has gone into thoughtfully opening businesses and events.

The most critical consideration that we have to take into account before choosing to participate in social settings, is that almost half of the people who have contracted this disease are asymptomatic or only have very minor symptoms.

These people can still spread the virus just as easily as someone experiencing flu-like symptoms. Although these people might not become sick or only have a

mild case, this doesn't mean that those who they might infect will also only have a mild case.

As an example of why we must still be diligent, we can look at what happened with a choir group in Washington that met for a two-hour practice. No one was sick, nor showing any symptoms. They also kept apart and refrained from handshakes and hugs. Of the 62 singers that attended, 45 became sick and two people unfortunately passed away from the virus.

Briefly passing an infected person on the street or in the aisle at the grocery store, from six feet away, is unlikely to cause someone else to get sick, but interacting with an infected person in an enclosed location, for a period of time, increases the risk. Ultimately, social distancing and wearing face coverings in public settings are both powerful tools to help prevent infection.