Practices to Reduce the Spread of COVID-19

In the light of the COVID-19 pandemic, it is very important to understand that it is everyone's responsibility to participate in the fight against the spread of this dangerous disease to protect ourselves, families, customers and communities.

How can we do that, you ask?

Before we discuss details and practices, we first need to understand the SARS-CoV-2 virus and how it is transmitted between people.

As you know, SARS-CoV-2 is a respiratory virus, which means it can infect our respiratory systems (airway and lungs) and can cause severe respiratory illness and even death. Much like other respiratory viruses, this virus is usually transmitted between people through contaminated respiratory droplets and aerosols that are exhaled from infected or asymptomatic individuals during breathing, speaking, coughing, and sneezing.

Usually, respiratory droplets undergo gravity influence and/or evaporation. Depending on the size of the droplets, larger droplets (>5 – 10 μm) undergo gravity influence and settle on the surfaces, thus, leading to **contact transmission** (by touching the contaminated surfaces). Smaller aerosols (≤5 μm), however, will evaporate faster than they will settle; thus, become aerosols that are affected by air currents, which can transport the virus over longer distances. Consequently, there are two major respiratory virus transmission pathways: first, by contact (direct or indirect between people and with contaminated surfaces), and second, by airborne inhalation. https://science.sciencemag.org/content/early/2020/06/02/science.abc6197.1.full#ref-5

Therefore, measures to reduce droplets and aerosol transmission, which include social distancing, wearing masks, and testing to identify and isolate infected asymptomatic individuals, must be followed to reduce the spread of COVID-19.

What is social distancing?

As per the CDC, social distancing is reducing physical interaction between people, which can be achieved by putting at least 6 feet between yourself and others.

**Why is social distancing important?**

Social distancing of 6 feet or more between two people will lower the chance of inhaling each other's droplets that might be contaminated and floating in the air between them, thus reducing the chance of getting infected with COVID-19. The 6-feet rule is recommended by the CDC because they believe that aerosolized droplets in still air do not easily travel farther than 6 feet. (see image below)
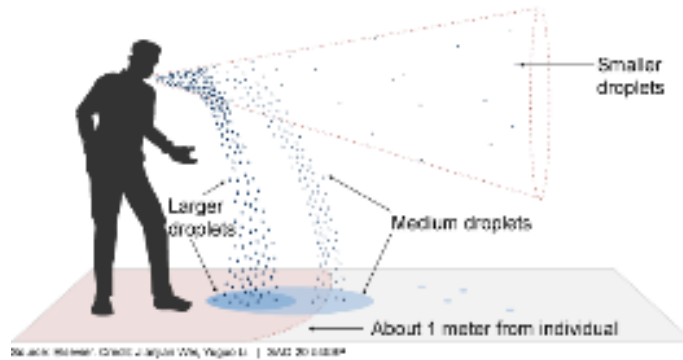
Why wear a mask?

Masks worn by everyone, especially infected and asymptomatic (carrying the virus without showing symptoms) individuals will reduce the amount of their respiratory droplets in the air when sneezing, coughing or speaking, thus reducing the chance of infecting others around them. (See illustration in image below)
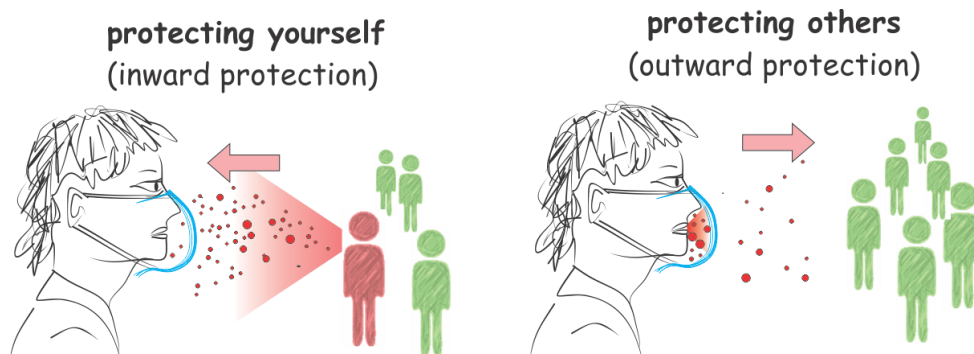
Remember, it is especially important during the COVID-19 pandemic to protect people who are at higher risk for severe illness from COVID-19. These people include older adults and people of any age who have serious underlying medical conditions.

As per the CDC, people can follow social distancing by reducing how often they are physically near others, reducing the overall number of people they are physically near, and by keeping at least 6 feet away from others when they leave their homes. Staying physically apart is important, even in places like the workplace, school, when shopping, or in other places in your community. The goal of social distancing is to reduce the risk of spreading COVID-19.

Written by Adel Makdesi – Sr. Corporate Microbiologist