

PREVENTION OF COVID-19: CORONAVIRUS DISEASE 2019

By Preeti Sah

Coronaviruses are a large family of viruses that get their name from halo of spiked proteins on their outer surface resembling a crown “the Corona” under a microscope. The new coronavirus is called SARS-CoV-2 which stands for Severe Acute Respiratory Syndrome Coronavirus-2. As a new virus, it means that previously no one in the world has been infected with it and therefore, no one has antibodies to it. Because no one has antibody everyone is at risk for catching, becoming ill and spreading the virus. SARS-CoV-2 (novel Coronavirus (Covid-19)) causes a disease called covid-19, the severe respiratory illness. Covid-19 can be deadly, particularly for older people and those of underlying health conditions. It is passed from human to human.

Virus Spread:

The viruses spread through droplets in the air after coughing or sneezing, which people nearby can take in through their nose, mouth or eyes. The viruses also spread by touching a contaminated surface. It is discovered that different types of materials have different persistence, mostly for from 2 hours up to 9 days. Also, it persists better at 50% compared to 30% relative humidity at room temperature. Through lungs inside your body, the virus travels quickly to the back of your nasal passages and to the mucus membranes in the back of your throat. The virus attaches to a receptor called ACE-2 or Angiotensin-Converting Enzyme-2 on respiratory cell in your body. The viruses’ genetic material enters your cell to produce copies of itself, which go on to effect more cells.

Symptoms and results:

The time between the initial infection and the first symptom appearing varies widely but is five days on average. Symptoms often starts in the back of the throat, with a dry cough, sore throat along with a fever. Symptoms become more severe as the infection starts making its way to your lower respiratory tract. Here, it can cause more respiratory problems like bronchitis and

pneumonia. When the virus reaches your lung it causes inflammation in the air sacs in your lungs which are called alveoli, oxygen and carbon dioxide are exchanged.

In pneumonia there is swelling, decreased air flow, and alveoli start to be filled with fluid causing shortness of breath and difficulty in breathing. Some people need a ventilator to help in breath. Less oxygen in your blood deprives other major organs of oxygen including liver, kidney and brain. Acute respiratory distress caused by widespread swelling in the lungs, stops body from getting the oxygen it needs to survive. This respiratory distress can lead to organ failure and death.

Covid-19 can be deadly, the vast majority around 80% of cases are mild to moderate and people recover within a week or two.

Prevention:

Since the lockdowns has been transformed to unlock as a protocol to resume economic activity of our country. With availability of many services risk of spreading of Covid-19 has been increased. As it is said that prevention is better than cure, thus we must be careful and focus more on the prevention of this virus. To prevent the spread of Covid-19, here's a few points to follow while returning to the workplace or being at home:

- Put distance between yourself and others avoid close contact with sick people.
- Adopt flexible working hours.
- Avoid crowded public transport, if possible go by bike or walk.
- If possible, discuss with your supervisor if you can work from home.
- Wear a mask when taking public transport.
- Cover coughs and sneezes with disposable tissue or the inside of your elbow.
- Check body temperature when entering office buildings.
- Avoid crowded lifts as far as possible.
- At work or at home, if you can, use the stairs instead of elevators.
- Avoid using your hands to touch common objects like elevator buttons, door handles, or staircase railings.

- Find no-contact ways to greet your colleagues and express affection to your friends and family.
- Avoid holding or joining large-scale meetings.
- Create distance-based meetings either through videoconferencing or by maintaining at least 1 meter space between people in the same room.
- Reduce face-to-face contact with co-workers.
- Arrange flexible meal hours.
- Avoid meal gatherings.
- Maintain good environmental hygiene at the workplace and wash hands frequently.
- After commuting to and from and throughout the day, clean your hands frequently and thoroughly.
- Avoid touching your eyes, mouth, and nose.
- After work, avoid crowded places or unnecessary activities.
- Ensure before leaving the house that all belongings are sanitized properly.
- If you feel unwell or even have a mild cough, don't go to work, stay at home and avoid direct contact with anyone and seek prompt medical advice.
- Clean and disinfect tables, door handles, and other frequently touched surfaces.
- If possible keep the windows open and ventilate your workplace regularly.
- Remember to seek ways to stay active and positive.

Stay healthy and let's all prevent the spread of COVID-19!

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