

COVID-19

Introduction:

A coronavirus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most coronaviruses aren't dangerous.

In early 2020, after a December 2019 outbreak in China, the World Health Organization identified SARS-CoV-2 as a new type of coronavirus. The outbreak quickly spread around the world.

COVID-19 is a disease caused by SARS-CoV-2 that can trigger what doctors call a respiratory tract infection. It can affect your upper respiratory tract (sinuses, nose, and throat) or lower respiratory tract (windpipe and lungs).

It spreads the same way other coronaviruses do, mainly through person-to-person contact. Infections range from mild to deadly.

Signs and symptoms:

There are two categories of patients in COVID - Asymptomatic and Symptomatic.

- **Asymptomatic patients**, who are COVID positive, can isolate themselves at home if there is a separate room with attached bathroom at home for 10 days minimum. If there are space constraints, it is better to stay in a quarantine centre. Asymptomatic patients are quarantined so that they do not spread infection to others.
- **Symptomatic patients:** There can be 3 categories of patients under this head.
 - Mild symptomatic
 - Moderate
 - Severe

Management of all symptomatic cases depends on these categories.

All Corona patients have different signs and symptoms. There is no typical picture which can be labeled as Corona infection. Hence, we have to be aware and observant about all the symptoms listed below.

Fever: Usually starts with a low grade fever i.e. below 100 degrees Fahrenheit and then gradually increases as viral load increases. Do not ignore low grade fever in people who are 60+ and people of any age who have some or the other co-morbidities like Diabetes, Hypertension, Heart disease, Liver disease, Asthma, Lung disease etc.

Body ache: Body ache may or may not be associated with fever.

Weakness: Weakness and malaise are very important symptoms. If a person has disproportionate weakness compared to temperature, think of COVID.

Cough: Usually Dry cough.

Hypoxia: Decrease in Oxygen saturation is a common sign in COVID. COVID patients may present with 'Happy Hypoxia' i.e. decrease in Oxygen saturation without breathlessness.

Every COVID diagnosed patient has to have Pulse-oximeter at home and should monitor Oxygen levels every 2 hourly and maintain a proper record. If the Oxygen saturation drops to 93 or below, consider hospitalization even if there is no breathlessness.

Breathlessness: Some patients may feel breathless with cough and fever.

Diarrhoea: There is strain of Coronavirus which affects Digestive system and patient might have low grade fever with diarrhea only. Loose motions without cramps in abdomen are typical of COVID. Usual gastric infection will have cramps or pain in abdomen along with loose stools.

Anosmia: Loss of smell can associate with other symptoms.

Dysgeusia: Altered or loss of taste in the mouth. Again this can associate with other symptoms.

Headache: Not very common but can be present with fever.

Some people have also observed **skin rashes** in COVID cases.

As the infection is new to us, new information will keep on pouring as we progress. Nothing should be taken as black and white. There will be many grey areas.

When should you think of hospitalization?

- Hypoxia: If Oxygen saturation is 93% or less irrespective of age, clinical condition, co-morbidities. Exceptions: If you already have some chronic lung disease.
- Fever: Temperature 102 or more. Prolonged fever: for 6 or more days.
- Prostration/ severe weakness even on 1st or 2nd day of fever.
- Dehydration and if person is not able to retain anything.
- D-Dimer report: Very High D-Dimer in blood study.
- These are just a few general criteria but the decision should always be taken with a Physician's consultation and self-medication, self-diagnosis should be avoided.

You can get hospitalized either in a Government hospital or Private hospital based on your choice / physician's guidance / financial condition / co-morbidities.

If you choose to get admitted in Government hospital, Local Municipal authority manages the ambulance and takes the responsibility of the patient. You just have call and inform your local Municipal authority about your decision.

If you choose to get admitted in the Private hospital, you will have to arrange for an ambulance / take the patient in your private vehicle depending on the patient's condition. Person with the patient has to wear PPE kit if he/she is going with the patient in the ambulance/car.

Things a patient must carry to hospital/Quarantine centers when getting admitted for COVID

- 1) Mobile phone, charger, headphones.
- 2) Regular medicines and old records if any for BP, Diabetes etc.
- 3) Eyeshades to sleep in lighted rooms.
- 4) Towel and toiletry kit
- 5) Slippers
- 6) Warm sweater/muffler/shawl if intolerant to AC.
- 7) Personal Thermometer and Oximeter.
- 8) Some dry snacks like Khakra / biscuits / dry fruits etc.

Investigations commonly done in COVID cases:

- **Blood tests:**

When you are at home and if the doctor is suspecting COVID, he/she might ask for CBC, CRP, SGOT, SGPT, Sr. Creatinine, D-Dimer to gauge the infection.

In the hospital, they also do tests like Sr. Ferritin, IL6 if they are suspecting Cytokine storm. They may ask for other tests as per requirement.

If you are Diabetic, blood sugars have to be checked and maintained during the infection. Uncontrolled Diabetes can be a risk.

- **Radiology:**

HRCT scan of the chest – Plain is a highly sensitive test and will show COVID related definite changes in the lungs 3rd-4th day onwards. HRCT can be done to diagnose or just before hospitalization after confirmation of COVID. It should not be repeated until and unless advised by your physician.

X-ray Chest can be done when you are at home or when hospitalized. It is not as sensitive as HRCT. It is done to see the progress in the hospital and acts as a monitoring tool.

- **RT-PCR for SARS-CoV2:**

This is the confirmatory test for COVID. Labs take Swab of nasal and oral secretions. Turnaround time of this test varies from lab to lab but usually you get report from 12 to 48 hours.

This test can be false negative in a few cases but if the doctor is very sure about the clinical picture of COVID, it can be repeated after 2-3 days again or confirmed from other tests like HRCT and blood work. Clinical correlation and history of family members is very important here.

You have to carry and submit your AADHAR card copy while going for this test.

- **Rapid COVID antigen test:**

This is a card test and turnaround time of this test is much shorter compared to PCR but there are more chances of getting a false negative test. Sensitivity of this test is not very good but can be done in emergency cases.

You have to carry and submit your AADHAR card copy while going for this test.

- **COVID Antibody test:**

This test is done to see if the person has developed immunity against COVID or no. Utility of this test is still not studied. We might get more information in near future.

You have to carry and submit your AADHAR card copy while going for this test.

- **Treatment for COVID:**

Treatment of COVID is based on the severity of symptoms and co-morbidities. Indication of the different medicines has to be decided by the physician and medicines should not be taken on your own.

Multivitamins can be taken to improve immunity after consulting your physician.

Some injections which hospital cannot arrange have to be arranged by the relatives of the patient. You also have to have patient's Aadhar card copy, COVID positive report and proper prescription from hospital to obtain these injections.

- **Prevention:**

You already know how to prevent getting infected by Corona but attaching here the WHO guidelines. You can follow these simple steps and precautions:

- Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water. Why? Washing your hands with soap and water or using alcohol-based hand rub kills viruses that may be on your hands.
- Maintain at least 1 metre (3 feet) distance between yourself and others. Why? When someone coughs, sneezes, or speaks they spray small liquid droplets from their nose or mouth which may contain virus. If you are too close, you can breathe in the droplets, including the COVID-19 virus if the person has the disease.
- Avoid going to crowded places. Why? Where people come together in crowds, you are more likely to come into close contact with someone that has COVID-19 and it is more difficult to maintain physical distance of 1 metre (3 feet).
- Avoid touching eyes, nose and mouth. Why? Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and infect you.
- Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately and wash your hands. Why? Droplets spread virus. By following good respiratory hygiene, you protect the people around you from viruses such as cold, flu and COVID-19.
- Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover. Have someone bring you supplies. If you need to leave your house, wear a mask to avoid infecting others. Why? Avoiding contact with others will protect them from possible COVID-19 and other viruses.

- If you have a fever, cough and difficulty breathing, seek medical attention, but call by telephone in advance if possible and follow the directions of your local health authority. Why? National and local authorities will have the most up to date information on the situation in your area. Calling in advance will allow your health care provider to quickly direct you to the right health facility. This will also protect you and help prevent spread of viruses and other infections.
- Keep up to date on the latest information from trusted sources, such as WHO or your local and national health authorities. Why? Local and national authorities are best placed to advise on what people in your area should be doing to protect themselves.

Safe use of alcohol-based hand sanitizers

To protect yourself and others against COVID-19, clean your hands frequently and thoroughly. Use alcohol-based hand sanitizer or wash your hands with soap and water. If you use an alcohol-based hand sanitizer, make sure you use and store it carefully.

- Keep alcohol-based hand sanitizers out of children's reach. Teach them how to apply the sanitizer and monitor its use.
- Apply a coin-sized amount on your hands. There is no need to use a large amount of the product.
- Avoid touching your eyes, mouth and nose immediately after using an alcohol-based hand sanitizer, as it can cause irritation.
- Hand sanitizers recommended to protect against COVID-19 are alcohol-based and therefore can be flammable. Do not use before handling fire or cooking.
- Under no circumstance, drink or let children swallow an alcohol-based hand sanitizer. It can be poisonous.
- Remember that washing your hands with soap and water is also effective against COVID-19.

Role of Physical activity in COVID

It's very important for people of all ages and abilities to be as active as possible.

Remember - Just taking a short break from sitting, by doing 3-4 minutes of light intensity physical movement, such as walking or stretching, will help ease your muscles and improve blood circulation and muscle activity.

Regular physical activity benefits both the body and mind. It can reduce high blood pressure, help manage weight and reduce the risk of heart disease, stroke, type 2 diabetes, and various cancers - all conditions that can increase susceptibility to COVID-19.

It also improves bone and muscle strength and increases balance, flexibility and fitness. For older people, activities that improve balance help to prevent falls and injuries.

Regular physical activity can help give our days a routine and be a way to stay in contact with family and friends. It's also good for our mental health - reducing the risk of

depression, cognitive decline and delay the onset of dementia - and improve overall feelings

Role of Healthy diet in COVID

Eating a healthy diet is very important during the COVID-19 pandemic. What we eat and drink can affect our body's ability to prevent, fight and recover from infections.

While no foods or dietary supplements can prevent or cure COVID-19 infection, healthy diets are important for supporting immune systems. Good nutrition can also reduce the likelihood of developing other health problems, including obesity, heart disease, diabetes and some types of cancer.

1. Eat a variety of food, including fruits and vegetables

2. Cut back on salt

3. Eat moderate amounts of fats and oils

4. Limit sugar intake

5. Stay hydrated: Drink enough water

6. Avoid hazardous and harmful alcohol use

Mental Health in COVID times:

Here are tips and advice that we hope you will find useful.

- **Keep informed.** Listen to advice and recommendations from your national and local authorities. Follow trusted news channels, such as local and national TV and radio, and keep up-to-date with the latest news from @WHO on social media.
- **Have a routine.** Keep up with daily routines as far as possible, or make new ones.
- Get up and go to bed at similar times every day.
- Keep up with personal hygiene.
- Eat healthy meals at regular times.
- Exercise regularly.
- Allocate time for working and time for resting.
- Make time for doing things you enjoy.
- **Minimize newsfeeds.** Try to reduce how much you watch, read or listen to news that makes you feel anxious or distressed. Seek the latest information at specific times of the day, once or twice a day if needed.
- **Social contact is important.** If your movements are restricted, keep in regular contact with people close to you by telephone and online channels.

- **Alcohol and drug use.** Limit the amount of alcohol you drink or don't drink alcohol at all. Don't start drinking alcohol if you have not drunk alcohol before. Avoid using alcohol and drugs as a way of dealing with fear, anxiety, boredom and social isolation.

There is no evidence of any protective effect of drinking alcohol for viral or other infections. In fact, the opposite is true as the harmful use of alcohol is associated with increased risk of infections and worse treatment outcomes.

And be aware that alcohol and drug use may prevent you from taking sufficient precautions to protect yourself against infection, such as compliance with hand hygiene.

- **Screen time.** Be aware of how much time you spend in front of a screen every day. Make sure that you take regular breaks from on-screen activities.
- **Video games.** While video games can be a way to relax, it can be tempting to spend much more time on them than usual when at home for long periods. Be sure to keep the right balance with off-line activities in your daily routine.
- **Social media.** Use your social media accounts to promote positive and hopeful stories. Correct misinformation wherever you see it.
- **Help others.** If you are able to, offer support to people in your community who may need it, such as helping them with food shopping.
- **Support health workers.** Take opportunities online or through your community to thank your country's health-care workers and all those working to respond to COVID-19.

Don't discriminate

Fear is a normal reaction in situations of uncertainty. But sometimes fear is expressed in ways which are hurtful to other people. Remember:

- Be kind. Don't discriminate against people because of your fears of the spread of COVID-19.
- Don't discriminate against people who you think may have coronavirus.
- Don't discriminate against health workers. Health workers deserve our respect and gratitude.
- COVID-19 has affected people from many countries. Don't attribute it to any specific group.

Few quick tips:

- Do not ignore a low grade fever which lasts for more than 3 days.
- If your doctor is not very vigilant, consult another doctor and take a 2nd opinion asap.
- Medicaid (Health Insurance) does not cover COVID care charges which private hospitals charge on per day basis. It's a huge amount and it will be better if you are in touch with your agent and consult him/her before hospitalization regarding the same.
- Keep some cash in your house in the current situation as the last minute run around for hospital deposit or purchasing medicines can be avoided.

- If you have any pre-existing problems / you are 60+, you have to be vigilant and should not delay diagnosing and get the treatment at the earliest.
- COVID in young population usually presents with mild or no symptoms at all.
- Purchase and keep a personal Thermometer and Pulse-oximeter for monitoring if you are COVID positive.
- Keep calm and do not panic.
- Last but not the least: **Stay positive!**

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Disclaimer: This write up is just to provide basic information and spread awareness from different sources and experiences. Ultimate decision for any diagnosis and treatment will be with the consulting physician. No one should try to self diagnose or self medicate based on this. Consult your physicians as soon as you observe any symptoms.

If you have any important query or need guidance, you can call me on +91 9594461006 between 6 to 8 pm only.

References:

<https://www.webmd.com/lung/coronavirus>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/>

Lectures of my mentor Dr. Tushar Shah (MD physician) on COVID management:

<https://www.youtube.com/channel/UCkVVzEG2kZpVSHvciW7H-zQ>