

# Study of Hazard of COVID-19

Narendra Mutalik, Natasha Saldanha, Mrs. Vidya

Students, Department of Computer Science and Engineering

Alva's Institute of Engineering and Technology, Mijar, Mangalore, Karnataka, India

**Abstract:** COVID-19 is a type of coronavirus disease belonging to the family Coronaviridae. The disease is thought to originate from bats and was spread to people through an unknown medium in Wuhan, China. Ideally, the condition is spread by inhalation or close interaction with infected droplets that have an incubation period between two and fourteen days. Today, there are thousands of infections and deaths that have been caused by the disease. Moreover, the symptoms of the disease include fever, cough, sneezing, sore throat, difficulty breathing, and tiredness. Additionally, the diagnosis of the disease starts by gathering samples of the upper and lower respiratory tracts of the infected person. Also, chest X-rays and CT scan are used in the diagnosis stage. Basically, there is no precise treatment for the ailment, and this calls for the need to prevent the disease from spreading. Notable prevention strategies are isolation of the infected persons, proper ventilation, hand hygiene and use of personal protective equipment. Therefore, this paper provides in-depth information on COVID-19 as it discusses the disease epidemiology, transmission, clinical features, diagnosis, treatment and prevention..

**Keywords:** Antibodies, Community spread, Containment, Covid Pneumonia, Covid Toes, Fatality Rate, Isolation, Herd Immunity.

## I. INTRODUCTION

Coronaviruses are a family of viruses known for containing strains that cause potentially deadly diseases in mammals and birds. In humans they're typically spread via airborne droplets of fluid produced by infected individuals. Scientists have known of the human coronavirus since the 1960s. But only rarely has it garnered wider recognition over the past half a century.

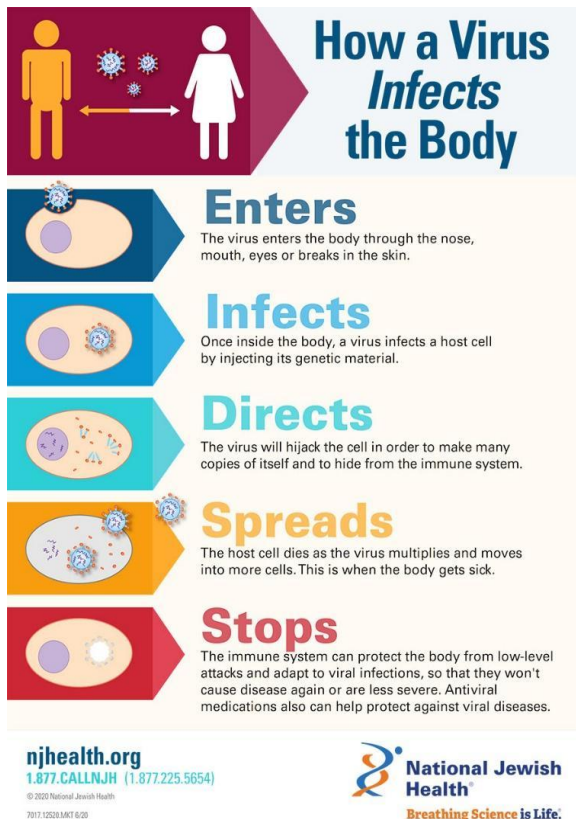
During the mid-1990s these viruses were described as the backwater of virology, since none caused serious disease in humans. However, this changed in 2002-03 with the emergence of a coronavirus causing severe acute respiratory syndrome (SARS-CoV), and then in 2012 the Middle East respiratory syndrome coronavirus (MERS-CoV) in Saudi Arabia. The origin of both viruses was thought to be in bats, with civet cats and dromedary camels being the confirmed zoonotic reservoirs for SARS-CoV and MERS-CoV, respectively.

All coronaviruses are zoonotic. They start off in animals and can then, following mutation, recombination and adaptation, be passed on to humans. The International Committee for the Taxonomy of Viruses has approved the naming of more than 40 coronaviruses. The vast majority of these infect animals.

The COVID-19 outbreak has brought the number of identified coronaviruses that infect humans to seven. Four of these are community acquired and have circulated through the human population continually for a very long time. The four community-acquired human coronaviruses typically cause mild cold-like symptoms in humans. Two of them, hCoV-OC43 and hCoV-229E, have been responsible for between 10% and 30% of all common colds since about the 1960s.

Three of these (SARS-CoV, MERS-CoV and SARS-CoV-2) appear to have jumped to the human population more recently. Worryingly, these three result in a high mortality rate.





**How a Virus Infects the Body**

**Enters**  
The virus enters the body through the nose, mouth, eyes or breaks in the skin.

**Infects**  
Once inside the body, a virus infects a host cell by injecting its genetic material.

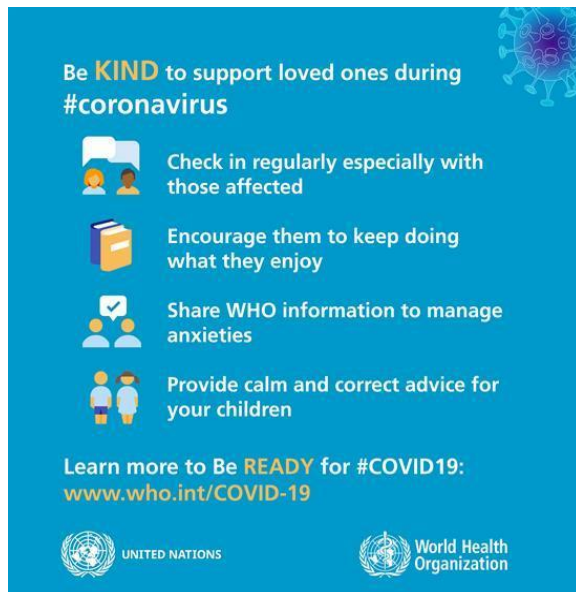
**Directs**  
The virus will hijack the cell in order to make many copies of itself and to hide from the immune system.

**Spreads**  
The host cell dies as the virus multiplies and moves into more cells. This is when the body gets sick.

**Stops**  
The immune system can protect the body from low-level attacks and adapt to viral infections, so that they won't cause disease again or are less severe. Antiviral medications also can help protect against viral diseases.

**njhealth.org**  
1.877.CALLNJH (1.877.225.5654)  
© 2020 National Jewish Health  
7017.1.2020.MAR.6.00

**National Jewish Health**  
Breathing Science is Life.



**Be KIND to support loved ones during #coronavirus**

- Check in regularly especially with those affected
- Encourage them to keep doing what they enjoy
- Share WHO information to manage anxieties
- Provide calm and correct advice for your children

**Learn more to Be READY for #COVID19:**  
[www.who.int/COVID-19](http://www.who.int/COVID-19)

UNITED NATIONS | World Health Organization

## II. INFORMATION ABOUT VIRUS

### 2.1 Symptoms

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

#### A. Most Common Symptoms

- Fever
- Cough
- Tiredness
- Loss of taste or smell.

#### B. Less Common Symptoms

- Sore throat
- Headache
- Aches and pains
- Diarrhoea
- A rash on skin, or discolouration of fingers or toes
- Red or irritated eyes.

#### C. Serious Symptoms

- Difficulty breathing or shortness of breath

- loss of speech or mobility, or confusion
- Chest pain.
- Seek immediate medical attention if you have serious symptoms. Always call before visiting your doctor or health facility.
- People with mild symptoms who are otherwise healthy should manage their symptoms at home.
- On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days.

#### **D. Prevention**

To prevent infection and to slow transmission of COVID-19, do the following:

- Get vaccinated when a vaccine is available to you.
- Stay at least 1 metre apart from others, even if they don't appear to be sick.
- Wear a properly fitted mask when physical distancing is not possible or when in poorly ventilated settings.
- Choose open, well-ventilated spaces over closed ones. Open a window if indoors.
- Wash your hands regularly with soap and water or clean them with alcohol-based hand rub.
- Cover your mouth and nose when coughing or sneezing.
- If you feel unwell, stay home and self-isolate until you recover.

#### **REFERENCES**

- [1]. <https://www.hsj.gr/abstract/current-situation-of-coronavirus-disease-covid19-review-article-29729.html>
- [2]. <https://www.everydayhealth.com/coronavirus/coronavirus-glossary-key-terms-about-the-pandemic-explained/>
- [3]. <https://www.physio-pedia.com/Coronaviruses>
- [4]. [https://www.who.int/health-topics/coronavirus#tab=tab\\_2](https://www.who.int/health-topics/coronavirus#tab=tab_2)