



Coronaviruses

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According to the World Health Organization (WHO), a new variant of coronavirus has caused **pneumonia outbreak in Wuhan, China**.

○ The new coronavirus is different from previously discovered human coronaviruses and further understanding of the virus requires more scientific research.

About Coronaviruses

● Coronaviruses are named for the **crown-like spikes on their surface**. "Corona" in Latin means "halo" or "crown."

● Human coronaviruses were first identified in the mid-1960s. Till date, scientists have identified six coronaviruses that can infect people.



Types

● **Four common coronavirus** that cause mild to moderate upper-respiratory tract illnesses, like the common cold are:

- 229E (alpha coronavirus)
- NL63 (alpha coronavirus)
- OC43 (beta coronavirus)
- HKU1 (beta coronavirus)

● While, the **two other human coronaviruses** that have been known to frequently cause severe symptoms are:

- MERS-CoV (the beta coronavirus that causes Middle East Respiratory Syndrome, or MERS)
- SARS-CoV (the beta coronavirus that causes Severe Acute Respiratory Syndrome, or SARS)

● Other coronaviruses can infect animals like **cats, dogs, monkeys, and rodents**.

Antibodies

Since coronavirus **antibodies do not last for a very long time**, a person can catch the virus again within months. Also, the antibodies for one strain of coronavirus may be useless against other strains.

Transmission

Human coronaviruses most commonly spread from an infected person to others through

- the air by coughing and sneezing,
- close personal contact, such as touching or shaking hands,
- touching an object or surface with the virus on it, then touching your mouth, nose, or eyes before washing your hands,
- rarely through fecal contamination.

Vaccination

There are currently **no vaccines available against human coronavirus infection**.

Middle East Respiratory Syndrome (MERS)

- MERS was first reported in **Saudi Arabia in 2012** and has since spread to several other countries.
- It is caused by a virus (more specifically, a coronavirus) called Middle East Respiratory Syndrome Coronavirus (MERS-CoV).
- Most MERS patients develop severe respiratory illness with symptoms of fever, cough and shortness of breath.
- About 3 or 4 out of every 10 patients reported with MERS have died.

Severe Acute Respiratory Syndrome

- SARS coronavirus (SARS-CoV) was identified in 2003. It first infected humans in the Guangdong province of **southern China in 2002**.
- An epidemic of SARS affected 26 countries and resulted in more than 8000 cases in 2003.
- Its transmission is primarily from person to person.
- Symptoms are influenza-like and include fever, malaise, myalgia, headache, diarrhoea, and shivering (rigors). No individual symptom or cluster of symptoms has proved to be specific for a diagnosis of SARS.