



# How it spreads

Coronavirus disease spreads primarily through contact with an infected person when they cough or sneeze. It also spreads when a person touches a surface or object that has the virus on it, then touches their eyes, nose, or mouth. [MORE](#)



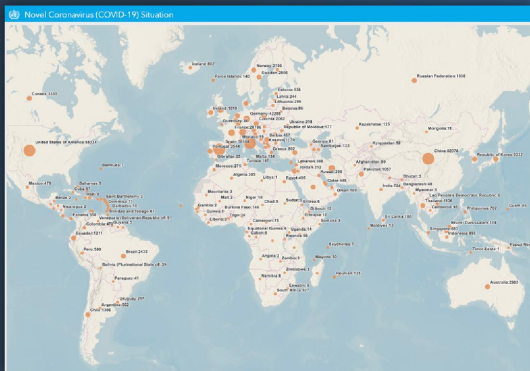
NOW:  
The current  
global situation



THE SCIENCE:  
Transmission of  
COVID-19



VIDEO:  
How to wash  
hands effectively



## The pandemic is accelerating exponentially

The 1st 100,000 cases took 67 days,  
the 2nd 100,000 cases took 11 days,  
the 3rd 100,000 4 days  
**and the 4th 100,00 just 2 days**

For the latest data, please access:

- [WHO situation dashboard](#)
- [WHO situation reports](#)
- [UNWFP world travel restrictions](#)

## Current global situation

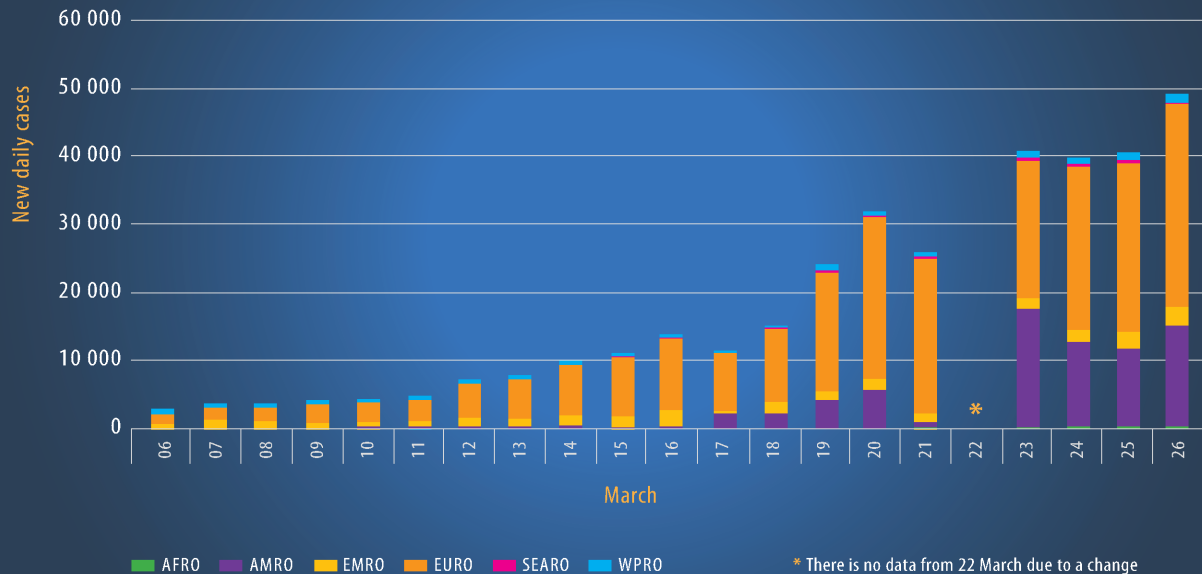
- Over half a million cases of COVID-19 globally
- 209 countries, areas and territories with cases
- Over 21,000 deaths
- USA now has the highest number of cases globally

### Top ten countries with the highest number of new cases

COUNTRY	NEW REPORTED CASES IN LAST 24HRS
United States of America	11,656
Spain	7,937
Italy	5,210
Germany	4,954
France	2,895
Iran	2,389
Canada	1,670
United Kingdom	1,452
Switzerland	925
Netherlands	852



## Number of new cases of COVID-19 per day, by WHO Region



\* There is no data from 22 March due to a change in the WHO situation reporting period



## Epidemiological insights

- At diagnosis, approximately **80% of cases are mild/moderate**; 15% severe; 5% critical
- Disease progression: approx. 10-15% of mild/moderate cases become severe, and approximately 15-20% of severe cases become critical
- Average times:
  - from exposure to symptom onset is 5-6 days after infection;
  - from symptoms to recovery for mild cases is 2 weeks;
  - from symptoms to recovery for severe cases is 3-6 weeks;
  - from symptoms onset to death is from 1 week (critical) to 2-8 weeks.
- COVID-19 much less frequent in children than adults; and children tend to have milder disease





## How it spreads

Coronavirus disease (COVID-19) is an infectious disease caused by a new virus (SARS-CoV-2).

The disease causes respiratory illness with symptoms such as a cough, fever, and in more severe cases, difficulty breathing. New symptoms more recently identified include loss of taste and/or smell.

You can protect yourself by washing your hands frequently, avoiding touching your face, and avoiding close contact with other people. Keep a safe distance from others of at least 1 meter or 3 feet.

The spread of COVID-19 from person to person is being driven by droplet transmission – the virus is carried in the small droplets that emerge from the noses or mouth, when a person with COVID-19 speaks, exhales, coughs or sneezes. Infection can also happen when a person touches a surface or object that has the virus on it, then touches their eyes, nose, or mouth.

Related resources:



VIDEO:

[How is COVID-19 spread and how do you protect yourself against it?](#)



## Preventing spread

You can protect yourself and help prevent the spread of the virus.

- **Wash your hands frequently**, for 20 seconds each time, with soap and water or alcohol-based hand rub
- **Avoid close contact** with anyone else & keep a safe distance of at least 1 meter or 3 feet, from others
- **Cover your nose and mouth with a disposable tissue** or flexed elbow when you cough or sneeze
- **Stay home** and self-isolate from others in the household if you feel unwell and follow the instructions of your local health authority
- **Do not touch your eyes, nose, or mouth**

There are no specific vaccines or treatments for COVID-19 as yet. However, there are clinical trials underway. WHO will continue to provide new information as it becomes available.

Related resources:



VIDEO:

[How to wash your hands effectively](#)



# Two studies: Transmission of COVID-19

## STUDY NO. 1

**Air, surface, environmental and protective equipment contamination** by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) from a symptomatic patient. Ong SWX, Tan YK, Chia PY et al. JAMA, March 4 2020. DOI:10.1001/JAMA.2020.3227

**Setting:** The individual hospital rooms of 3 symptomatic COVID-19 patients in Singapore

**Investigation:** Swabs taken from surfaces in the room (including tables, lockers, light switches, door handles, toilet and sinks, chairs and handrails) both before and after routine cleaning with a chlorine solution were tested. Air was collected for testing using special samplers.

**Findings:** There was extensive contamination of surfaces prior to cleaning but swabs were negative after cleaning. All air samples were negative.

**Conclusion:** COVID-19 is spread through droplet transmission - respiratory droplets that are relatively heavy, do not travel far and fall quickly to the ground or other surfaces. Extensive contamination of the environment can occur however, chlorine-based disinfectant is effective at cleaning surfaces. Airborne spread is very unlikely in normal circumstances

## STUDY NO. 2

**Aerosol and surface stability of SARS-CoV-2 [COVID-19 virus]** as compared with SARS-CoV-1. Van Doremalen N, Morris DH, Holbrook MG et al. NEJM. 17 March 2020. DOI: 10.1056/NEJMc2004973

**Setting:** Experiment in a research laboratory.

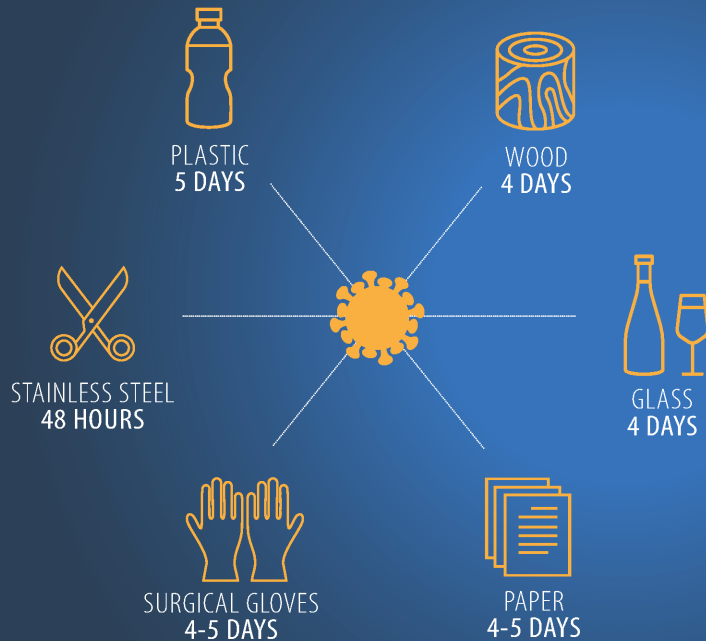
**Investigation:** Virus grown in laboratory cultures was placed on a variety of surfaces (plastic, stainless steel, copper and cardboard). Surfaces were swabbed at different time points and tested for live virus. Special laboratory equipment was used to create very fine sprays (liquid particles less than 5 microns in size) that can hang in the air.

**Findings:** Under these favorable laboratory conditions COVID-19 virus could survive for up to 72 hours on plastic and stainless steel, up to 24 hours on cardboard and up to 4 hours on copper. It could also survive for up to three hours in aerosols.

**Conclusion:** Given the right environmental conditions, COVID-19 virus can survive for long periods on certain surfaces and in fine aerosols that are sometimes produced during advanced medical procedures. Special precautions are needed for these aerosol-generating procedures but aerosols are not important in COVID-19 transmission in normal circumstances.



# How long human coronaviruses stay on surfaces



- Surface disinfections with 0.1% sodium hypochlorite (diluted bleach) or 62-71% ethanol is effective within 1 minute
- COVID-19 was NOT included in this study but to date, there is no indication that SARS-CoV-2 behaves differently to other coronaviruses

Source: J.Hosp.Infect. 2020.01





# Protective measures

You can protect yourself and help prevent spreading of the virus.

- Wash your hands frequently and thoroughly
- Avoid touching your eyes, nose, and mouth
- Cover your cough or sneeze with your bent elbow or tissue. If a tissue is used, discard it immediately and wash your hands
- Follow distancing measures issued for your area and stay at home if you have COVID-19 symptoms, even a mild cough
- If you have a fever, cough and difficulty breathing, seek medical care early — but call by phone first, if possible
- Keep the house stocked with approximately 1-2 weeks of essential food and supplies, including prescription medicines
- Regularly clean and disinfect surfaces frequently touched
- Stay up-to-date using information from trusted sources, such as WHO and your local health authority

Related resources:



VIDEO:

[How to wash your hands effectively](#)



VIDEO:

[How is COVID-19 spread and how do you protect yourself against it?](#)



## New information resources



### WHO WhatsApp messaging service

Receive the latest news and information on COVID-19. To subscribe: text 'hi' to [+41 79 893 1892](tel:+41798931892)



### New EPI-WIN website

Access to timely, accurate, and easy-to-understand advice and information from trusted sources [www.who.int/epi-win](http://www.who.int/epi-win)