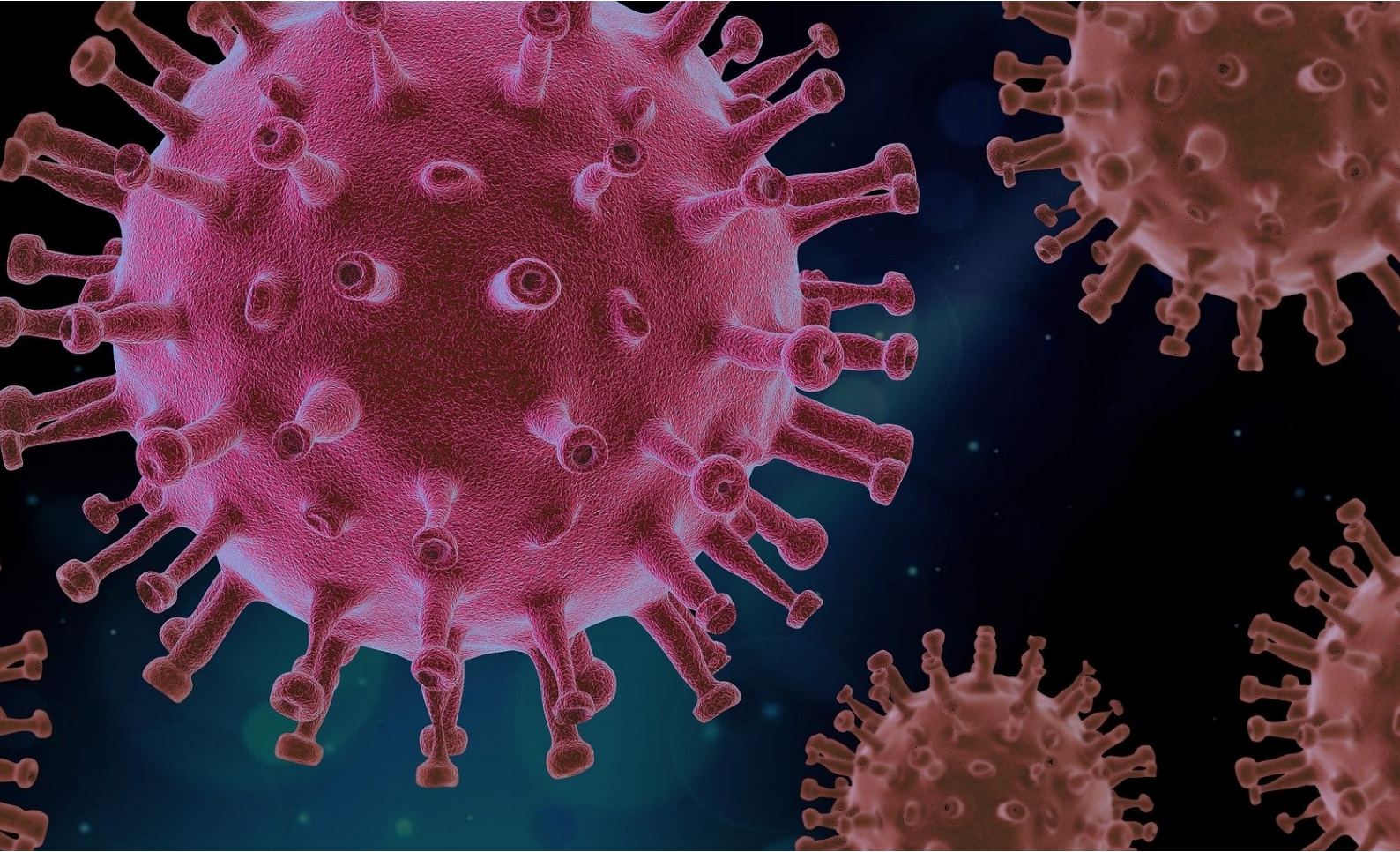




آغا خان یونیورسٹی  
THE AGA KHAN UNIVERSITY

# HOW TO GO VIRAL?



**A COVID-19 Handbook  
for Students**

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# Brought to You By:



Community Wing  
Society for Promotion of Innovation in  
Education (SPIE)

## In Collaboration With

Center for Innovation in Medical  
Education (CIME)  
The Aga Khan University



# About SPIE and its Community Wing

**SPIE is a student organization run by students, with students, for students.**

It all dates back to 2015 when the Center for Innovation in Medical Education (CIME) was founded at The Aga Khan University. Professor Charles Docherty, Director of CIME, wanted to gather as many perspectives for the facility as possible before embarking on plans for the future.

Students are the lifeblood of a university, and their views would be essential to incorporate into thinking around innovation and simulation in the existing educational programs. Henceforth, after brainstorming with a diverse interested group of students and post-graduates, many interesting perspectives emerged.

The idea of establishing a body that would bridge the gap between the SIM center and students caught the imagination, which was developed further to eventually bring SPIE to existence.

Society for Promotion of Innovation in Education, or SPIE for short, is a student-run organization at The Aga Khan University that serves to foster innovation in educational practices, community engagement, and media tools. SPIE aims to create a positive learning experience at AKU through the application of medical simulation technology so that you are better equipped to face the ever-evolving challenges of tomorrow.

**Our four main wings are:**

- **Education and Promotion**
- **Research and Development**
- **Community**
- **Socials and Marketing**

SPIE's Community Wing is dedicated to improving health awareness in the community by utilizing simulation tools at AKU's Center for Innovation in Medical Education (CIME). We are committed to promoting a culture of teaching and learning within and outside the walls of AKU. This is so that you, as part of the society, are ready to combat the challenges faced in desperate times as in the case of COVID-19.



# Our Team

**Muhammad Ali** is a final-year medical student and an aspiring ophthalmologist. Ali has founded Quadragon, a social welfare organization working primarily for education & poverty alleviation in Karachi and authored CHSME, a community health resource for medical students. He is also the current Convener of the Surgery Interest Group at AKU and, as the Director of SPIE's Community wing, is the Course Lead for 'How Not to Go Viral?' - A COVID-19 course for school and university students.



**Abiha Abdullah** is currently almost halfway through the third year of MBBS at The Aga Khan University. When the COVID-19 wave began, she was rotating in family medicine and saw first-hand the panic this pandemic had created and the dangerous misconceptions surrounding it. Having experienced all of this, she hopes to help clear up the misconceptions and address some of the common concerns regarding COVID-19 by serving as a Co-Course Lead for this handbook.



**Omaima Anis Bhatti** is a third-year medical student at The Aga Khan University. Her passions include pediatrics, public health rights, and travel. She strongly believes in effective communication and spreading positive energy. Amidst the current COVID-19 crisis, Omaima hopes to advocate for an informed youth and support mental well-being. As a member of the SPIE's Community wing, she has co-lead the course for this handbook.



**Sajida Parveen** is a second-year medical student at The Aga Khan University. The only reason she chose medicine was her love for people and the curiosity to explore the dynamics of their lives as a healthcare giver. She developed this sense of connectivity as part of the Pakistan Girl Guiding Association, a movement that was started to engage young girls and boys in community service. Sajida is also the Co-Course Lead for this ultimate handbook on COVID-19.



# Our Team

**Izza Tahir** is a first-year medical student at The Aga Khan University who aspires to become a surgeon InshaAllah. Her interests include calligraphy, crochet, coding, and reading, which she got a chance to explore in this lockdown further. She is a Potterhead and loves the fact that the Sorting Hat sorted her into Gryffindor! Izza has served as an Author for this COVID-19 handbook.



**Manzar Abbas** is a third-year medical student at The Aga Khan University and an aspiring cardiothoracic surgeon. His interests include learning not only surgical skills but also computer programming, artificial intelligence, and photography. Learning multiple things simultaneously, he holds his motto of excelling at every field very tight. He likes to use every second of his day to explore new avenues.

**Sahar Jessani** is currently a second-year nursing student at The Aga Khan University. She is serving as an intern at SPIE. Her primary area of interest is research, and she is keen to work for the mental and sexual health of women. During this pandemic crisis, Sahar is working with SPIE and STAC to spread authentic information about COVID-19 and is thus an Author of this booklet. Her hobbies include writing blogs and reading fanfiction.



**Zoha Zahid Fazal** is currently a second-year medical student at AKU. Authoring this COVID-19 handbook holds great value for her since she homeschools students herself. She is also an amateur researcher plus a freelancer, and a frequent babysitter for her nephew. Born with and treated for clubfeet, Zoha aspires to be a surgeon to have the same miraculous impact on other people's lives. Her interests include philanthropy, South Asian literature, and handicraft.



# Want to Get a Free E-Certificate From Us?



Give a pre-reading quiz by:



OR



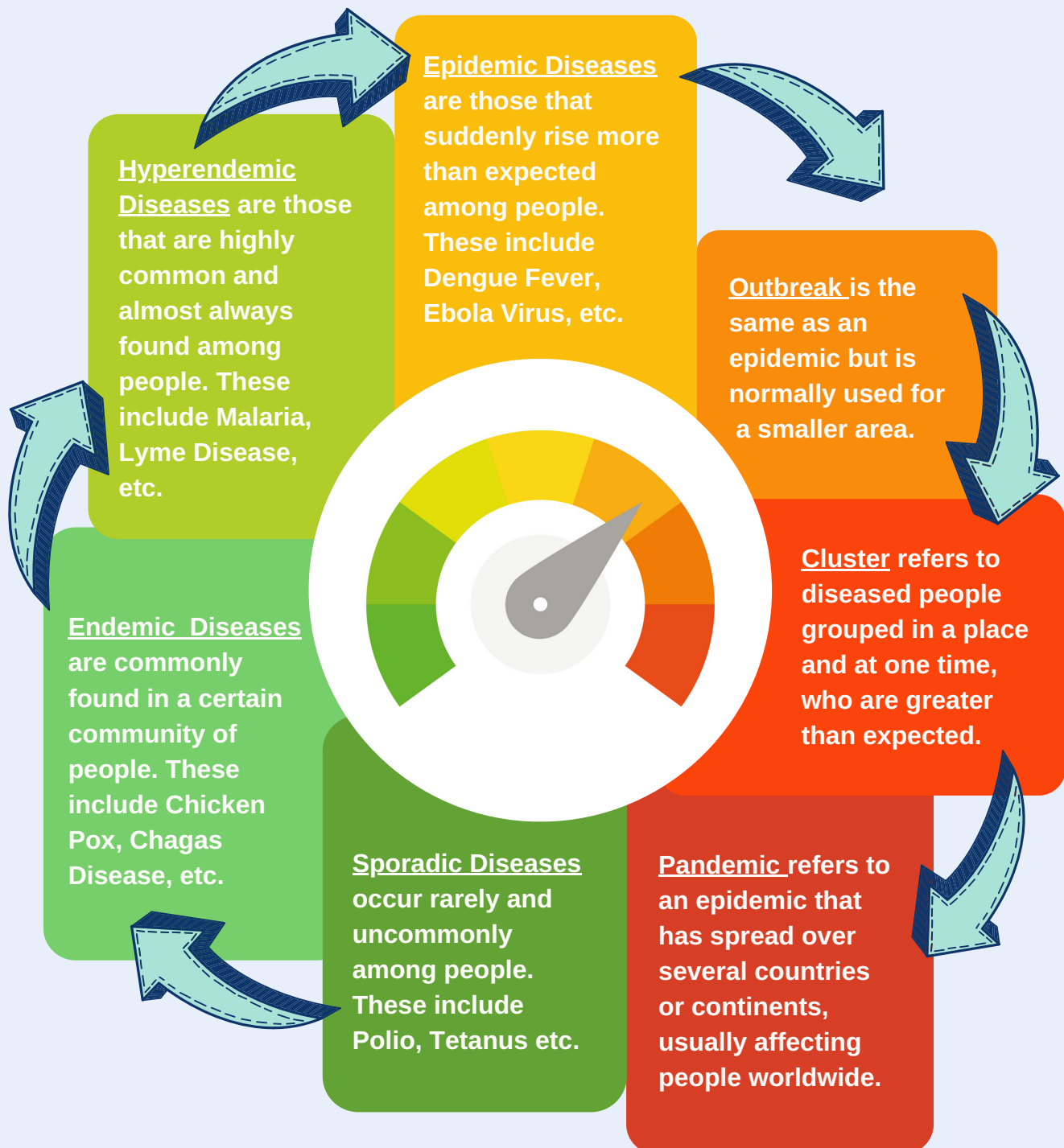
<https://bit.ly/pre-hntgv>



## ATTENTION!

Certificates will only be emailed to those who fill BOTH: the pre- and post-reading quizzes, AND perform satisfactorily in the post-reading quiz.

# Disease Severity Levels





# Pandemics in the Past

## The Great Plague of London

The 'Bubonic Plague' started in the 1300s and returned in 1665 as the 'Great Plague of London,' killing every 2 out of 10 people in London. In fact, there were so many dead bodies that mass graves were dug!

## The Spanish Flu

The Spanish Flu was caused by an 'influenza' virus that started spreading worldwide in 1918, and killed every third infected person in the world, causing at least 50,000,000 deaths globally.

## Asian Flu

Also caused by an 'influenza' virus, the Asian Flu began in East Asia in 1957 and killed 1,100,000 people worldwide. That specific type was first detected in Singapore, followed by Hong Kong and America.

## Flu Pandemic

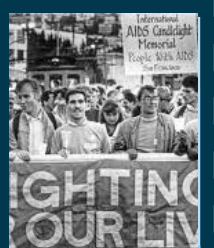
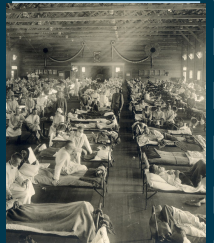
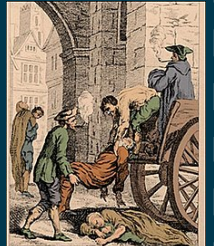
The Flu Pandemic of 1968, or the 'Hong Kong Flu,' started from China. Caused by a slightly different 'influenza' virus from the 1957's Asian Flu pandemic, it killed 1,000,000 people worldwide.

## Swine Flu Pandemic

The last flu pandemic, also known as "swine flu," occurred in 2009 by a 'new influenza' virus not found before in humans or animals. The virus killed up to 575,400 people globally.

## Human Immunodeficiency Virus

First discovered in the early 1980s, HIV started spreading from same-sex partners in America. Since 2006, it's grown to pandemic levels, with an estimated 25,000,000 deaths worldwide.



# COVID-19 Begins...

“It is important to put this on the table – this virus may become just another endemic virus in our communities, and this virus may never go away.”

**Dr. Mike Ryan**  
**Executive Director of WHO**  
**Emergencies Program.**





While reading this handbook, you will get to meet a family every now and then. This family is from Karachi, going through COVID-19 times, just like yours and mine. The members face common household problems that we all must have encountered at some point during the past few months of isolation and lockdown.

The family members include:

- Mr. and Mrs. Riaz who have been working from home
- Ali and Ayesha who have their online classes every day
- Dadi and Dada Jan of 70 years age with Dada Jan having diabetes, &
- Amna who has her summer vacations owing to the COVID-19 crisis.

**What does COVID-19 stand for?**

- A) Coronavirus Disease 2019**
- B) Coronavirus Disease 1999**
- C) Coronavirus Disorder 2019**
- D) Coronavirus Disorder 1998**



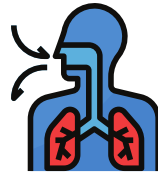
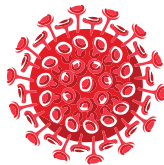
# What is COVID-19?



Viruses are a type of germ. They're very tiny, and when they get inside your body, they can make you sick.



Coronavirus is a large family of viruses known to cause illnesses ranging from the common cold to more severe diseases like COVID-19.



The respiratory system in your body allows you to breathe, laugh, talk, and even sing!

This system starts from your nose and mouth, and connects them through the airways to your lungs in the chest.

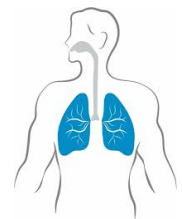


**COVID-19** stands for COrona VIrus Disease of 2019. It is a new infectious disease caused by the 'novel coronavirus.'



The word 'corona' is derived from Latin, which means 'crown' owing to the taj-like appearance of the virus under a microscope.

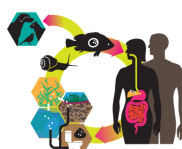
The novel coronavirus is also called **SARS-CoV-2**, which is short for Severe Acute Respiratory Syndrome CoronaVirus 2 since it causes infections of the lungs and airways in humans.



COVID-19 got known after its outbreak in Wuhan, China in December 2019 and has been declared a pandemic by the WHO after spreading worldwide.



Viruses may come from animals after slight changes. This is called zoonotic transmission. This type of transmission has not been confirmed for COVID-19 yet.



The exact role of animals, namely bats, in the outbreak of COVID-19, has not been established yet.



In humans, COVID-19 may range from mild respiratory (breathing) issues to severe and even deadly infections, if not promptly managed.

# SARS-CoV-2

## HOW THE VIRUS SPREADS



Cough  
or sneeze



Personal  
contact



Contaminated  
objects

## How is COVID-19 Transmitted?

People can catch COVID-19 from person to person through small droplets present in the nose or mouth of a corona patient. That's why it is vital to **stay at least 6 feet or 2-arms length away** from others. These droplets are relatively heavy, do not travel far and quickly sink to the ground. So, they can land on objects and surfaces around us, such as tables, doorknobs, and handrails.

COVID-19 patient coughs, sneezes, or speaks.



Normal person breathes in the viral droplets.

## OR

COVID-19 patient coughs, sneezes, or speaks.



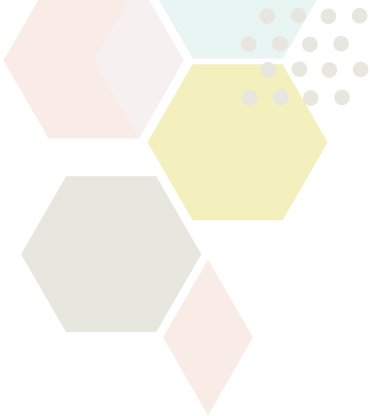
The viral droplets land on an object/surface.



Normal person touches the object/surface.



Normal person touches his/her eyes, nose, or mouth.



# Who can Catch COVID-19?

**ANYONE CAN CATCH COVID-19!**

**But some people have a higher risk of developing serious illness once they catch the virus. They include:**



People who live in a **nursing home or long-term care facility**



People **65+ years old**



People with **underlying health conditions**  
(i.e. heart/lung/kidney disease, diabetes, weakened immune system, etc.)





# Symptoms of COVID-19



**Cough**



**Sneezing**



**High Fever**



**Runny  
Nose**



**Hard to  
Breathe**



**Chest  
Pain**



**Sore  
Throat**



**Headache**

**Fever, dry cough, and tiredness** are the most common symptoms.

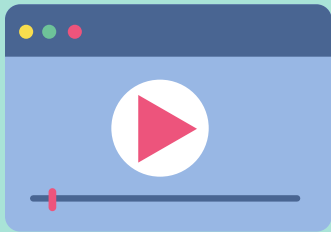
Call the Doctor or hospital if symptoms appear.

**A LOT OF CASES MIGHT NOT SHOW ANY SYMPTOMS.**

Other less common symptoms may include diarrhea, vomiting, chills, nasal block, skin rash, and absent taste/smell.

Symptoms may appear 2 to 14 days after exposure to the virus.

**NO SYMPTOMS DOES NOT MEAN NO INFECTION.**



**Watch a video on  
this scenario here!**



**SCAN ME**

**OR**



**[https://bit.ly/  
cough-hntgv](https://bit.ly/cough-hntgv)**



Mrs. Riaz has a dry cough for the past couple of days. A day ago, she felt feverish as well. She is worried that she might have contracted the disease.

**What is the next course of action?**

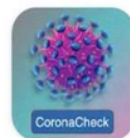
- A) Get tested from a credible hospital/medical facility**
- B) Use a self-screening app or call a helpline/doctor**
- C) Ignore the symptoms and go about her daily chores**
- D) Drink tea of Senna Mukhi as it may be just another flu**



# Self-Screening Apps and Links for COVID-19

Self-screening applications and links are used if symptoms for COVID-19 start to appear. They help determine if you need to get a diagnostic test done for coronavirus and are as follows:

<http://covid19.tih.org.pk/>



**CoronaCheck**  
Aga Khan University



**Hotline**

**+92 21 3441 2965**

**+92 21 3441 2966**

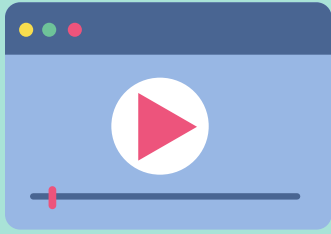
**Health Helpline:**  
**1166**

<http://ncra.org.pk/covid>



**COVID-19 Gov PK**  
National IT Board, Government Of  
Pakistan





Watch a video on  
this scenario here!



OR



[https://bit.ly/  
hospital-hntgv](https://bit.ly/hospital-hntgv)



Mrs. Riaz started to feel difficulty in breathing and abdominal pain. Ayesha went to the hospital last night with her mother, along with Amna. Mrs. Riaz decided to get a corona diagnostic test done for all 3 of them since contact history was there. She was shocked by the results. Both she and Ayesha tested positive, i.e. had caught COVID-19, although Ayesha didn't have any symptoms. Mrs. Riaz also asked the Dr. what the science is behind the COVID-19 tests.

**You must go to the hospital if you experience...**

- A) high fever
- B) headache
- C) dry cough
- D) short breaths





# When to Seek Immediate Medical Attention?



If you have no symptoms at all, you may have to watch out for them and self-isolate.

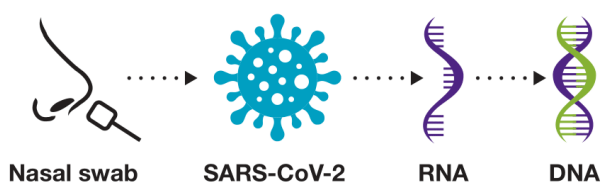
If you have minor symptoms, such as a slight cough or a mild fever, there is generally no need to seek medical care. Stay at home, self-isolate, and monitor your symptoms.

However, if you have any of the emergency warning signs for COVID-19, seek medical care immediately. These include but are not limited to: trouble breathing, persistent pain or pressure in the chest, new confusion, inability to wake up or stay awake, and bluish lips or face.

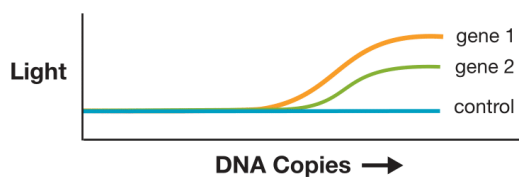
# The Science Behind the Coronavirus Tests

## A Molecular Testing

### VIRUS-DERIVED



- DNA derived from patient samples is repeatedly copied and amplified



- Different colored dyes bind to genes for pieces of the virus.
- Another dye detects genes from related virus families.



### Pros

- Early detection
- Quick processing (hours)
- Highly selective and specific



### Cons

- Skilled personnel and equipment necessary
- Does not tell you if virus is still active
- Cannot detect those who've been infected and later recovered

## B Serological Testing

### BLOOD-DERIVED



#### After 2 days:

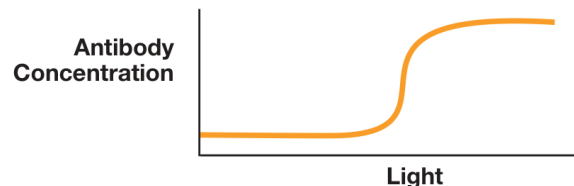
Your spleen produces IgM, one of the first antibodies to attack coronavirus



#### 9-11 days:

More tailored antibodies called IgG are produced

As the patient's immune system kicks in, the antibodies are measured using a technique called **ELISA**:



### Pros

- Rapid test available at point-of-care
- Low cost
- Can be used to test large populations
- Reliably detects exposure



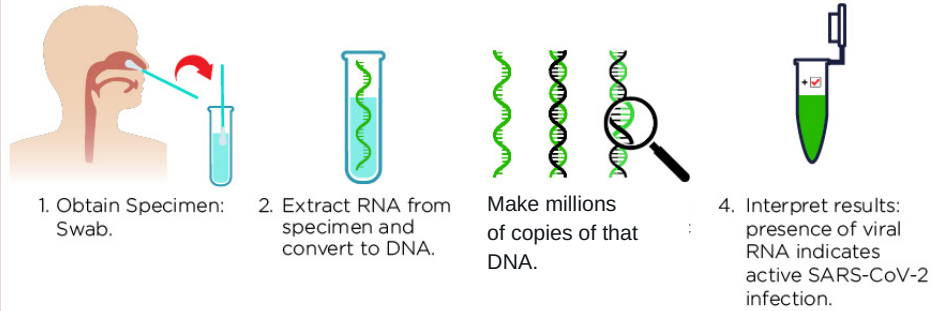
### Cons

- Cannot detect if patient is contagious or infection is still present
- Prone to false negatives if patient has deferred immune response

# Extra Information

## Molecular Tests (Nucleic Acid Detection)

Diagnose active SARS-CoV-2 infections



## How Current Tests Work

1

A sample is taken from the patient's nose or back of the throat and is sent to the lab.



2

RNA is a noodle-like material carrying all the information about how the virus looks like and works. DNA is two noodles (RNAs) curled together, which is needed for this test. Hence, the RNA of the virus is extracted and converted to DNA.



3

Millions of copies of the DNA are made and added to a container along with colorful chemicals (fluorescent dyes).



4

Colorful chemicals (dyes) bind to the viral DNA. Viral DNA, when bound to the colored dye, gives off light. Specialised cameras can detect this light.

## Issues With Testing

### Chemical Issues

High demand and low supply of required chemicals may delay testing in some countries.

### Time-Consuming

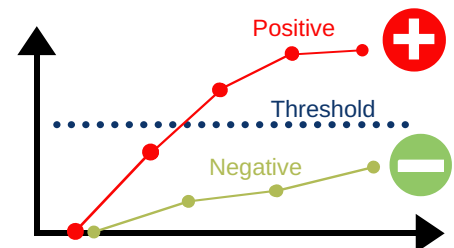
It takes a few hours to get the results of the tests. Plus, the tests may have to be repeated if they come out wrong (false).

### False Positives and Negatives

Sample spoiling or mixing can give false results. Samples with not enough viral RNA can give false-negative results.

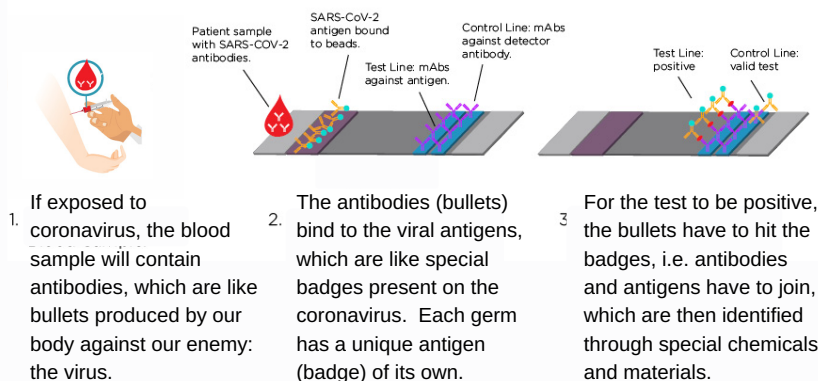
## Positive and Negative Results

A minimum level of light emitted (fluorescent) is set in a computer and is detected by specialized cameras. If more light is emitted than the 'minimum level' (Threshold), then the test is labeled as positive (+). If the light emitted is less than the 'Threshold,' the lab labels the test as negative (-).



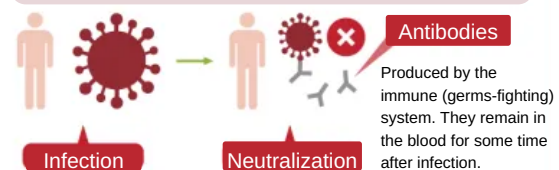
## Antibody Tests (Serology)

Detect immune response to SARS-CoV-2 exposure



## Antibody Testing

The current tests are good for diagnosing an infection but they can't tell us if someone has had it and then recovered. Tests that look for antibodies against the virus instead of the viral RNA can do this.



These antibodies are found in the plasma (the liquid part of the blood) of COVID-19 patients. These people can donate their plasma to help save the lives of critically ill patients.

# How to Treat COVID-19?

## Is There Any Cure?



- **THERE IS NO DEFINITE CURE YET!**
- **Only 1 out of 5 patients develop serious illness.**

## What About a Vaccine?



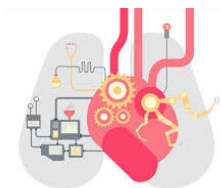
- Vaccines or shots keep you from getting some serious diseases. These diseases could make you very sick.
- Vaccines can hurt, but the pinch of a shot isn't nearly as bad as those illnesses which you may get if you do not get an injection.

## Is There Any Vaccine?



- **THERE IS NO VACCINE FOR COVID-19 AS OF YET!**
- **But a vaccine is likely to be made by mid-2021.**

## How to Get Better Then?



- 4 out of 5 COVID-19 patients recover on their own.
- The mainstay is to stop the spread by practising quarantine or self-isolation depending on your case.



# How Should COVID-19 Patients Self-Quarantine?

## For ill people

If you are ill with fever and cough



Clean hands frequently with soap and water or with alcohol-based hand rub.



Stay at home; do not attend work, school or public places. Rest, drink plenty of fluids and eat nutritious food.



Stay in a separate room from other family members, but if not possible wear a medical mask and keep a distance of at least 1 meter (3 feet) from other people. Keep the room well-ventilated and if possible use a dedicated bathroom.



When coughing or sneezing, cover mouth and nose with flexed elbow or use disposable tissue and discard after use. If you experience difficulty breathing, call your health care facility immediately.

# What if You Have a COVID-19 Positive Patient in Your House?

## All members of the household

Wash hands with soap and water regularly, especially:

- after coughing or sneezing
- before, during and after you prepare food
- before eating
- after using the toilet
- before and after caring for the ill person
- when hands are visibly dirty



Avoid unnecessary exposure to the ill person and avoid sharing items, such as eating utensils, dishes, drinks and towels.



When coughing or sneezing, cover mouth and nose with flexed elbow or use a disposable tissue and discard immediately after use.



Monitor everyone's health for symptoms such as fever, cough and if difficult breathing appear, call your health care facility immediately.

# How to Care for a COVID-19 Positive Patient in General?

## For caregivers



Ensure the ill person rests, drinks plenty of fluids and eats nutritious food.



Wear a medical mask when in the same room with an ill person. Do not touch the mask or face during use and discard it afterward.

Frequently clean hands with soap and water or alcohol-based rub, especially:

- after any type of contact with the ill person or their surroundings
- before, during and after preparing food
- before eating
- after using the toilet



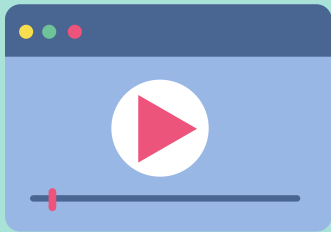
Use dedicated dishes, cups, eating utensils, towels and bedlinens for the ill person. Wash dishes, cups, eating utensils, towels, or bedlinens used by the ill person with soap and water.



Identify frequently touched surfaces by the ill person and clean and disinfect them daily.



Call your health care facility immediately if the ill person worsens or experiences difficulty breathing.



Watch a video on  
this scenario here!



SCAN ME

OR



[https://bit.ly/  
party-hntgv](https://bit.ly/party-hntgv)



Amna and her best friend Erum have not seen each other for over a month. Erum says to Amna over a phone call, "Hey Amna! Aren't you bored of this social distancing? What if I arrange a party and maybe we can meet and have fun? Your family can join us too and my parents would love that."

During COVID-19 people are advised to practice 'Social Distancing' which means...

- A) locking yourself in a room
- B) not talking to anyone at all
- C) staying away from people
- D) being completely anti-social





# How to Prevent the Spread of COVID-19 in Person?

Use Hand Sanitizer

Stay Away From the Sick

Exercise Regularly



Eat Healthily

Cover Coughs and Sneezes

Stay at Home

# How to Prevent the Spread of COVID-19 in Schools?



Observing a high level of personal hygiene by staff members and children.



Ensuring good environmental hygiene in school.



Early detection and isolation of children or staff who are ill, and advising them to seek medical treatment.



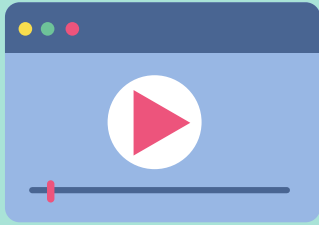
Parents or visitors who have a fever, cough, or runny nose should not be allowed in the school.



Daily monitoring of health and conducting temperature-screening of all visitors and staff may help.

Children or staff who are unwell must stay at home to rest and return to school only when they have fully recovered.





**Watch a video on  
this scenario here!**



**OR**



**[https://bit.ly/  
play-hntgv](https://bit.ly/play-hntgv)**



Ali just got the news that his next-door neighbor, with whom he played basketball a day ago outside their house, had contracted the disease. Ali remembered that they shared his equipment and shook hands as well.






**What will be the next step for Ali?**

- A) No need to do anything if symptoms are absent**
- B) Self-quarantine for 14 days and watch out for symptoms**
- C) Go to the hospital right away and get your test done**
- D) Start taking antibiotics and medicines available at home**



# How to Stay Away?

## Know the Differences!

	<b>SOCIAL DISTANCING</b>	<b>QUARANTINE</b>	<b>SELF-ISOLATING</b>
<b>Who it's for:</b> 	People who have not been exposed to the virus.	People who have been exposed to the virus and don't have symptoms.	People who think they have the virus or have tested positive for the virus.
<b>How long it's for:</b> 	Indefinitely.	14 days minimum. If symptoms develop, call at government helpline i.e. 1166 and follow their instructions.	At least 10 days after the onset of symptoms, or 3 days after the last symptom, or after 2 negative tests (most accurate).
<b>Who you can interact with:</b> 	Roommates, family members you live with.	No direct contact.  Stay in a room alone if you live with people or in your house if you live alone.  Have friends/family/delivery services drop off supplies but don't touch or talk to them.	
<b>What you can do:</b> 	Go for a solitary walk, hike, or jog.  Let employees work from home.	Stock up on food and water — have it delivered and don't interact directly with the delivery person.	
<b>How to socialize:</b> 	Cancel any unnecessary gatherings/plans.	Don't leave your house aside from emergencies.  No face-to-face interaction. Maintain a six foot distance from roommates/family.  Facetime dates, phone calls and virtual communication are all acceptable.	





Ali is always in a hurry and thinks that spending more time on things such as hand washing is just a waste of time. His mother is very concerned for him, especially during a time like this when personal hygiene and proper hand washing are a must. While searching on the internet, she found out a fun fact that the minimum amount of time ideally taken to wash our hands is 20 seconds, which is the same time as singing the 'Happy Birthday' song. After a lot of hard work, she finally convinces Ali, who then asks for the hand washing steps.

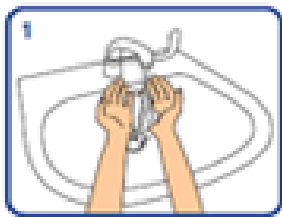
**Which of the following statements regarding hand washing is incorrect?**

- A) You should wash your hands for 20 seconds with soap**
- B) You don't need to wash your hands after disinfecting surfaces**
- C) You should wash your hands before and after wearing a mask**
- D) Washing your hands can destroy the outer fatty coat of the virus**



# Appropriate Hand Washing Technique

## Hand washing technique with soap and water



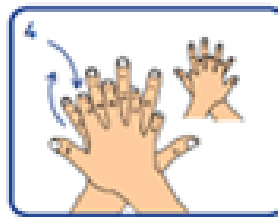
Wet hands with water



Apply enough soap to cover all hand surfaces



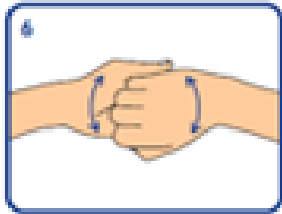
Rub hands palm to palm



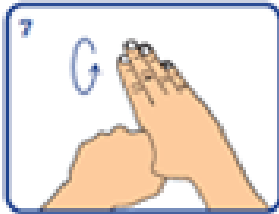
Rub back of each hand with palm of other hand with fingers interlaced



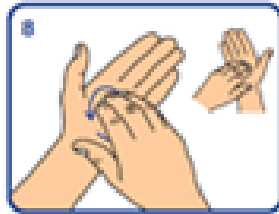
Rub palm to palm with fingers interlaced



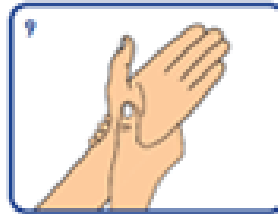
Rub with back of fingers to opposing palms with fingers interlocked



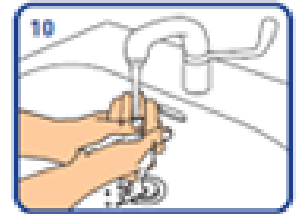
Rub each thumb clasped in opposite hand using a rotational movement



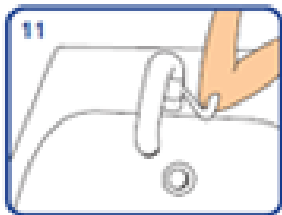
Rub tips of fingers in opposite palm in a circular motion



Rub each wrist with opposite hand



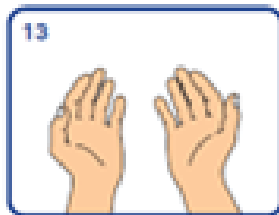
Rinse hands with water



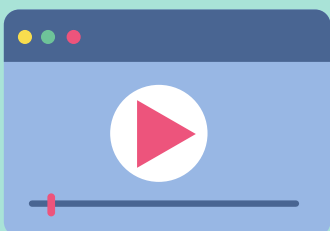
Use elbow to turn off tap (If no elbow tap available, use paper towel to turn off tap)



Dry thoroughly with a single-use towel



Hand washing should take at least 20 seconds



Watch a video on hand washing here!



OR



<https://bit.ly/handwash-hntgv>



Mr. Riaz is worried about the current shortage of masks in the market. Ayesha told her father not to worry. With her creativity and the help of authentic websites, she decided to make her own mask. She went to her room, brought a spare shirt and scissors, and said with a bright smile on her face, "Let's make a homemade mask until the crisis is over!"

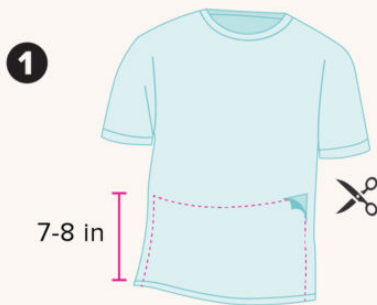
Once Ayesha is done, she demonstrates the steps of wearing a mask and shares her success story with her friends on Instagram.

**When going out is absolutely necessary, who should wear a mask?**

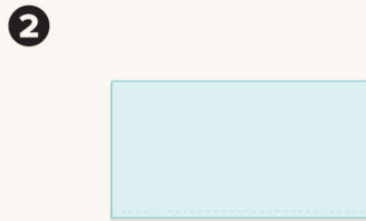
- A) Doctors/Nurses**
- B) Sick People**
- C) Healthy People**
- D) Everyone**



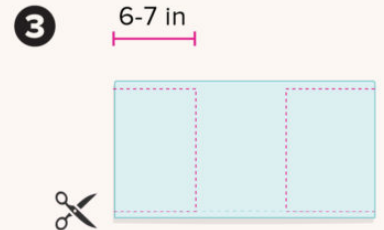
# How to Make Your Mask?



1 Place a clean t-shirt on a flat surface. Measure 7–8 inches from the bottom of the shirt and cut across.



2 Lay the cut fabric rectangle on a flat surface and discard the rest of the shirt.



3 Measure about 6–7 inches in from the side of the fabric rectangle and cut out the material, leaving about a half inch of material at the top and bottom. These are the strings to tie the mask behind your head.



4 Cut the string fabric in half.



5 Tie the strings around your neck, and then around the top of your head.

## Some Dos and Don'ts



✓ DO: Cover nose and mouth



✓ DO: Pull hair back



✓ DO: Tie straps behind head & neck



✓ DO: Remove by grabbing from the back



✗ DON'T: Pull below the nose



✗ DON'T: Wear on forehead



✗ DON'T: Pull below chin



✗ DON'T: Cross straps



✗ DON'T: Leave hair down face



✗ DON'T: Hang from one ear

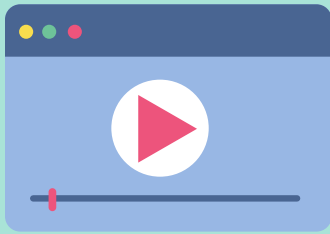


✗ DON'T: Leave a strap hanging



✗ DON'T: Wear a dirty or wet mask





Watch a video on  
how to make a mask  
here!



SCAN ME

OR



[https://bit.ly/  
diymask-hntgv](https://bit.ly/diymask-hntgv)

## WHAT TYPE OF MASK DO I NEED?

### HOMEMADE MASK OR PAPER MASK



**WHO SHOULD WEAR:**  
General public

**WHEN TO WEAR:**  
When a person can't  
perform social  
distancing; scarves and  
bandanas can be used  
if necessary.

**USE LIMITATIONS:**  
Cloth masks should be  
washed after each use;  
don't wear damp or when  
wet from spit or mucus.

### SURGICAL MASK



**WHO SHOULD WEAR:**  
Health care workers  
and patients in health  
care settings

**WHEN TO WEAR:**  
During single or multiple  
patient interactions or  
routine health procedures;  
recommended when N95s  
aren't available.

**USE LIMITATIONS:**  
Ideally should be  
discarded after each  
patient encounter.  
Extended use is  
preferable to reuse.

### N95 RESPIRATOR



**WHO SHOULD WEAR:**  
Health care workers

**WHEN TO WEAR:**  
Caring for patients with  
COVID-19 and  
performing procedures  
that put them most at  
risk of virus exposure.

**USE LIMITATIONS:**  
Ideally should be  
discarded after each  
patient encounter.  
Extended use is  
preferable to reuse.





Ayesha observes that when Mrs. Riaz came back from the pharmacy, she took off her mask by touching the front of it, placed it on the table, and went about doing her chores.

**Do you know what the correct way is to handle a mask?**

- A) Wear gloves to put on your mask from its strings with no gaps between it and the face
- B) Wash your hands before and after wearing your mask from the strings with no gaps
- C) Follow the steps in A and B but if your mask gets wet, dry it in the sun and use it again
- D) Use cloth mask when going outside and when you are at home



# Appropriate Usage of Protective Masks

1



Before putting on a mask, wash hands with alcohol-based hand rub or soap and water

2



Cover mouth and nose with mask and make sure there are no gaps between your face and the mask

Avoid touching the mask while using it; if you do, clean your hands with alcohol-based hand rub or soap and water

3



Replace the mask with a new one as soon as it is damp and do not re-use single-use masks

4



To remove the mask: remove it from behind (do not touch the front of mask); discard immediately in a closed bin; wash hands with alcohol-based hand rub or soap and water



Dada Jan has an appointment with his endocrinologist for his diabetes (high blood sugar level). Ali gives him an alternative of meeting his Doctor at the comfort of his home through telemedicine. Do you know what that is?

However, Dada Jan is adamant that he wants to go meet his Doctor in person.

**What distance should Dada Jan maintain from his Doctor?**

- A) 6 feet apart with a mask**
- B) 6 feet apart without a mask**
- C) 9 feet apart with a mask**
- D) 9 feet apart without a mask**



# Can We Still Consult Doctors in COVID-19?

## Telemedicine:

Telemedicine can be used to talk with your Doctor using mobile devices or a computer connected to the internet.



## How is Telehealth effective in this time of Pandemic?

Since going to crowded places unnecessarily can be harmful, telemedicine is enabling patients to get in touch with their doctors from the comfort of their home without taking additional risks. Some telemedicine services even drop your medicines at your doorstep after the consultation is over.



## How can Teleclinics be used?

Telemedicine can be used for a lot of specialties, but not all. Procedures, such as essential surgeries and emergencies (heart attack, stroke, etc.), will still require you to go to a hospital. Call your doctor/ hospital to check whether they are offering telemedicine services.

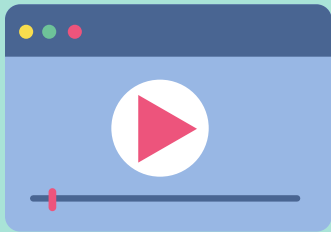


## Disclaimer:

In case of any urgent medical condition, visit your nearest emergency. Telemedicine is NOT an alternative to emergency care.



Service Provider	How to Access	Cost
Government of Pakistan	on +92 300 111 1166	Free
Aga Khan University Hospital	at 021 111 911 91	Variable
Dow University of Health Sciences	at 021 387 383 2032	Free
Aman TeleHealth	at 9123	Free
Sehat Kahani	SK website or e-health app	Variable



Watch a video on  
this scenario here!



OR



[https://bit.ly/  
grocery-hntgv](https://bit.ly/grocery-hntgv)



Mr. and Mrs. Riaz want to go out to buy some groceries, their son Ali suggests that there is no need to go out since they can just order groceries online. Mr. Riaz argues that the online stuff is never good and is always a waste of money.

Ali could not convince his parents to stay back at home so he gives them a few pieces of advice.

**Which of the following pieces of advice should Mr. and Mrs. Riaz follow?**

- A) Wear your mask and gloves
- B) Sanitize your hands frequently
- C) Stay at 2-arms length from others
- D) All of the above advice given





# Guidelines for Going Out!

COVID-19

MAKE YOUR GROCERY SHOPPING SAFE



Keep a distance of at least 1 meter whilst shopping and waiting in queues.



Cover your mouth and nose with a mask.



Go at off peak hours when fewer people will be there.



Elderly and high risk patients should not go and get help from family and friends.



Wear disposable gloves.



Disinfect the handles of the trolley or basket with wipes before using.



If possible, pay using a debit or credit card. Immediately sanitize hands after handling cash.



Rinse and wipe down all products, fruit, vegetables and meat before storing.



Wash all reusable bags and store in a clean place.



Wash your entire body thoroughly before interacting with anyone, when you reach home.

## If you leave home, know your Ws!



**WEAR**  
a cloth face covering.



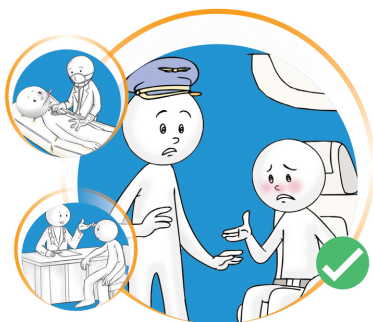
**WAIT**  
6 feet apart. Avoid close contact.



**WASH**  
your hands often or use hand sanitizer.

# Guidelines for Travelling!

## Follow these good practices



If you become sick while travelling, inform crew or port health officer and seek medical care. Inform the health care provider of your travel history.



Wash your hands with soap and running water when hands are visibly dirty. If your hands are not visibly dirty you can use an alcohol-based hand rub or soap and water



If you choose to wear a mask, make sure it fits tightly and covers your mouth and nose. Avoid touching the mask once it's on. Discard single-use masks immediately after use and then wash your hands.



When coughing or sneezing, cover your mouth and nose with a tissue or your upper sleeve. Dispose of used tissues immediately after use and then wash your hands.

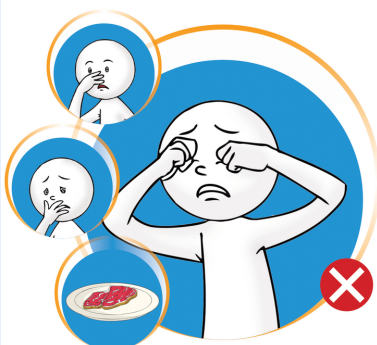
## Things to avoid



Avoid travelling if you have fever and cough.



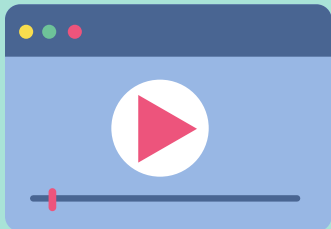
Avoid close contact with people suffering from fever and cough.



Avoid touching eyes, nose or mouth and eating food that has not been cooked thoroughly.



Avoid direct unprotected contact with animals while travelling.



Watch a video on  
this scenario here!



SCAN ME

OR



[https://bit.ly/  
chat-hntgv](https://bit.ly/chat-hntgv)



Mrs. Riaz is scrolling through the family group chat on WhatsApp and comes across the following messages:

You know COVID is a weapon from China!

Really?? That's shocking!!

Yeahh it started from the Chinese who drink bats' soup.

Ewww... How gross!!

Fam don't panic!! If you can hold your breath for 10 seconds, it means you don't have corona.

Wow! Time to save some cash :P

She is surprised by these messages and forwards them to other group chats.

Which statement about COVID-19 is TRUE?

- A) COVID-19 can be cured by drinking tea of Senna Mukhi leaves
- B) COVID-19 has been created by rich countries to kill poor people
- C) COVID-19 can cause serious illness to an elderly with underlying disease
- D) COVID-19 started to spread from the Chinese drinking bats' soup



# Some Trustworthy Sources of Information

**Government of Pakistan**



<http://covid.gov.pk/>

**World Health Organization**



<https://www.who.int/health-topics/coronavirus>

**Our World in Data**



<https://ourworldindata.org/coronavirus>

**Centers for Disease Control and Prevention**



<https://www.cdc.gov/coronavirus>

The new coronavirus can be transmitted in areas with hot and humid climates.



You can recover from the coronavirus disease (COVID-19). Catching the new coronavirus DOES NOT mean you will have it for life.



5G mobile networks DO NOT spread COVID-19.



Ultra-violet (UV) lamps should not be used to disinfect hands or other areas of your skin.



Spraying or introducing bleach or any other disinfectant into your body WILL NOT protect you against COVID-19 and can be dangerous.



The new coronavirus CANNOT be transmitted through mosquito bites.



Holding your breath for 10 seconds or more without coughing does NOT confirm that you are free from the coronavirus disease (COVID-19).



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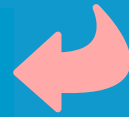
Cold weather and snow CANNOT kill the new coronavirus.



There are currently no drugs licensed for the treatment or prevention of COVID-19.



The new coronavirus cannot be transmitted through goods manufactured in China.



Adding pepper to your soup or other meals DOES NOT prevent or cure COVID-19.



Drinking alcohol DOES NOT protect you against COVID-19 and can be dangerous.



Taking a hot bath does not prevent the new coronavirus disease.



Exposing yourself to the sun or to temperatures higher than 25 degrees Celsius does not prevent or cure COVID-19.







Dadi and Dada Jan haven't met their neighbors for a long time. They are reminiscing about the post-Taraweeh meetups in the neighborhood park and conversations about the current affairs with their fellows. The lockdown has left them both feeling left out and depressed. How can you help Dadi and Dada Jan here?

**Dealing with stress during COVID-19 pandemic includes all the following activities EXCEPT...**

- A) video calling friends and family**
- B) going to a park with friends daily**
- C) performing deep breathing exercises**
- D) watching less COVID-19 related news**



# Coping With Stress in COVID-19

It is perfectly alright if the current situation overwhelms you. Know that you are not alone in this. Take a break from the havoc around you. You deserve it!



**It is normal** to feel sad, stressed, confused, scared or angry during a crisis.

Talking to people you trust can help. Contact your friends and family.



**Be aware that not everything you hear about the virus may be true.**

Stay updated and use information from trusted sources, like your health authority, World Health Organization (WHO) or your local Red Cross or Red Crescent.



**Limit worry and agitation** by lessening the time you and your family spend watching or listening to media coverage that you perceive as upsetting.



**Draw on skills you have used in the past** that have helped you to manage previous adversities and use those skills to help you manage your emotions during this outbreak.



**If you must stay at home**, maintain a healthy lifestyle including proper diet, sleep, exercise and social contact with family and friends at home and remotely.



**Deal with any emotions you may have in a healthy manner.**

If you feel overwhelmed, talk to a health worker or counsellor. Have a plan, where to go to and how to seek help for physical and mental health needs if required.

# B o r e d o m K i l l e r s

**Pen Down Your Thoughts!**



**Take Online Courses!**

**Read a new Book!**



**Catch up With Friends!**

**Try new Recipes!**



**Play Board Games!**

**Declutter Your Room!**

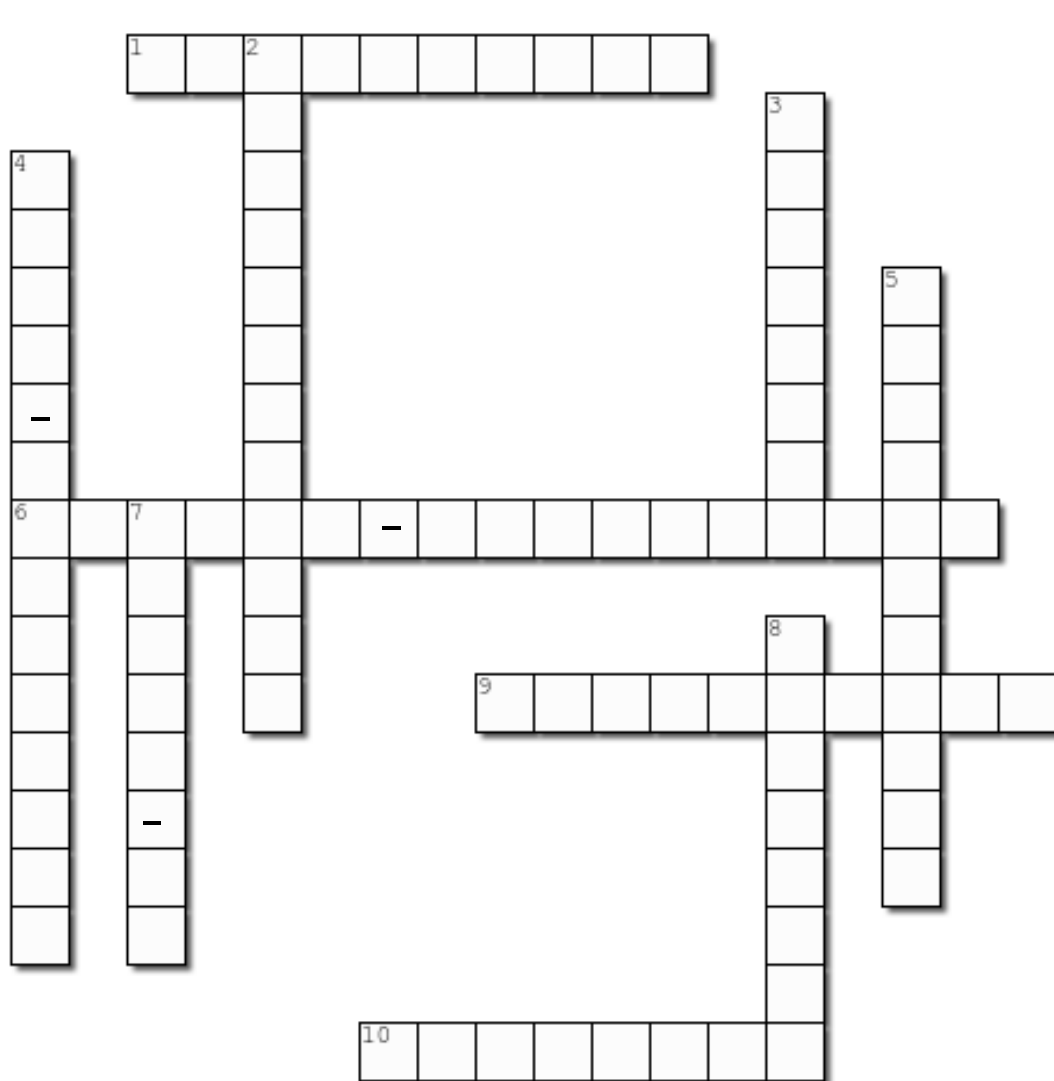


**Indulge in Arts & Crafts!**

# Challenge Yourself!

## Are You a Corona Crossword Crusader?

Use the clues and the words in the box to complete this crossword!



SELF-ISOLATION

QUARANTINE

COVID-19

SOCIAL-DISTANCING

PANDEMIC

ASYMPTOMATIC

EPIDEMIC

INCUBATION

ZOONOTIC

CORONAVIRUS



### Across

1. A restriction of movement for those exposed to COVID19.
6. People should stay away from public spaces with large gatherings of people.
9. The amount of time taken for an infectious person to start showing symptoms.
10. A large outbreak of a disease in a short period of time.

Answers:  
1. QUARANTINE 2. ASYMPTOMATIC 3. ZOOONOTIC  
4. SELF-ISOLATION 5. CORONAVIRUS 6. SOCIAL-DISTANCING  
7. COVID-19 8. PANDEMIC 9. INCUBATION 10. EPIDEMIC

### Down

2. An individual is \_\_\_\_\_ when he/she doesn't show any symptoms.
3. A virus is considered \_\_\_\_\_ when its origins can be traced back to animals.
4. Staying at home in isolation from the general public if you have the virus.
5. A large family of viruses that can cause a range of illnesses ranging from the common cold to more severe diseases.
7. The infectious disease caused by the most recently discovered coronavirus.
8. When an epidemic has spread to multiple continents or countries.

# Challenge Yourself!

Are You a Pandemic Puzzle Pro?

SOAP  
TISSUE  
CORONAVIRUS  
FEVER  
IMMUNE SYSTEM  
CLEAN  
MASK  
SPREAD  
WASH  
COUGH  
HEALTHY  
COVID  
INFECTION  
PREVENTION  
SYMPTOMS  
WATER  
HYGIENE  
ISOLATION

N	L	R	Y	T	T	E	P	W	H	F	J	O	I	N
S	O	N	E	I	Q	H	S	G	W	S	C	M	H	O
O	L	I	S	V	M	G	U	Z	N	M	M	N	Y	I
A	W	A	T	A	E	O	J	O	U	U	U	A	G	T
P	U	B	S	N	C	F	I	W	N	R	L	E	I	C
E	I	K	D	T	E	T	T	E	A	C	D	L	E	E
D	P	Q	N	J	A	V	S	A	E	T	Q	C	N	F
H	S	A	W	L	E	Y	E	K	A	P	E	B	E	N
T	F	I	O	Z	S	R	H	R	L	Y	O	R	D	I
C	G	S	A	T	R	R	B	E	P	A	S	F	J	N
A	I	W	E	S	U	R	I	V	A	N	O	R	O	C
T	K	M	N	D	A	E	R	P	S	L	F	J	S	G
S	Y	M	P	T	O	M	S	F	G	Z	T	C	E	B
R	S	H	D	C	O	V	I	D	M	O	B	H	R	F
N	C	K	J	E	V	E	Z	C	J	B	G	S	Y	O



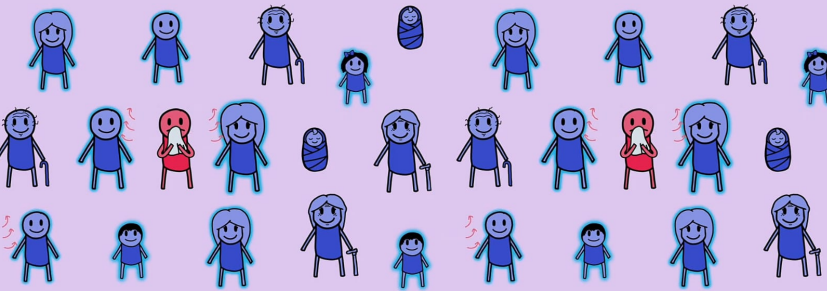
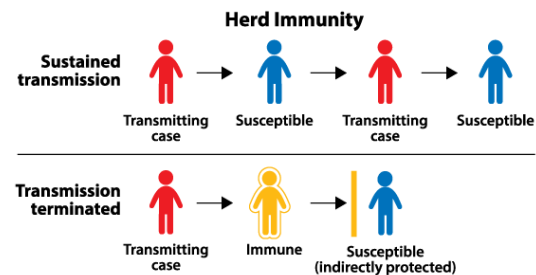


# When Will This Pandemic End?



The World Health Organization (WHO) will declare this COVID-19 pandemic over once the infection is mostly contained, and the rate of transmission drops significantly throughout the world. For the virus to be under control, 'Herd Immunity' needs to be reached.

'Herd Immunity' is the state where enough people in a group can't get the disease. This point is reached either naturally, after people recover from the illness, or through a vaccine. Herd Immunity stops the spread of the infection and indirectly protects people who are susceptible (at risk of serious illness).



However, a vaccine can help in ending this pandemic! The right time to discuss herd immunity is when we have a vaccine developed, which will hopefully come in the market by the summers of 2021. At that point, we will be able to really stop the pandemic in its tracks and make our lives return to normal.



According to research, a person infected with COVID-19 can pass it on to 3 other people. This means that herd immunity will be reached when 7 out of 10 people are protected from getting COVID-19. For this to naturally occur, about 155,000,000 Pakistanis will have to be diseased and then recover, which means that most of the country will be sick! Out of every 200 people who are sick of COVID-19, 1 or 2 die, which can greatly harm Pakistan's population as well. So, natural immunity is not really a solution to end this pandemic.

Fortunately, there are other ways to prevent COVID-19 from spreading, which all boil down to avoiding sick people. So stay at home, stay safe, and practice physical distancing as much as possible.



# Back-to-School Guidelines

Share what you learn about disease prevention with your family and friends, especially with younger children.



Tell your parents, another family member, or a caregiver if you feel sick, and ask to stay at home.



Ask questions, educate yourself, and get information from reliable sources.

Talk to someone you trust to help keep yourself and your school safe and healthy.



Wash your hands frequently, always with soap and water for at least 20 seconds.



Do not stigmatize your peers or tease anyone about being sick.



Protect yourself and others.



Do not share cups, eating utensils, food, or drinks with others.

Be a leader in keeping yourself, your school, family, and community healthy.



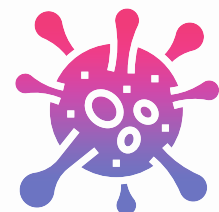
Keep a 70% alcohol-based sanitizer with you at all times.



Model good practices, such as sneezing or coughing into your elbow and washing your hands, especially for younger family members.



Remember not to touch your face.



Remember that the virus does not follow boundaries, ethnicities, age, ability or gender.

# Answer Key

## PAGE 12-A

The full form for COVID-19 is CORonaVirus Disease of 2019 (A) as it is caused by the 'novel coronavirus' which was discovered in 2019 and not 1999 (B). COVID-19 is a disease and not a disorder as it does affect the body systems, namely the respiratory system. Thus, options C and D are incorrect.

## PAGE 16-B

COVID-19 test kits are expensive and in short supply. So the test should only be done (A) once the self-screening app (B) or your doctor recommends one. Alternately, ignoring the symptoms (C) or drinking herbal tea (D) is not a wise idea if symptoms appear.

## PAGE 18-D

Fever (A), dry cough (B) and headache (C) are considered fairly common and mild symptoms for COVID-19. One only needs to self-isolate, to prevent transmission, and monitor the symptoms to detect severe disease at earlier stages. However, shortness of breath (D) is a severe symptom which requires immediate medical attention.

## PAGE 26-C

The idea behind social distancing is to limit the number of people you meet unless it's absolutely necessary. This is so that the spread of COVID-19 is reduced to a minimum. By no means should it make you lock yourself in your room (A) or avoid talking to others (B) or be anti-social (D) for that matter.

## PAGE 29-B

There is a good chance of getting COVID-19 if you have been in close contact with an infected person. Thus, as a precautionary measure, you must self-isolate and monitor your symptoms for 14 days (B), which is the incubation period for COVID-19. Panicking and overreacting by performing steps A, C or D is not advised.

## PAGE 31-B

COVID-19 tends to spread through droplets which are quite heavy and can easily land on surfaces and objects. If you do not wash your hands properly after cleaning/disinfecting surfaces (B) and touch your eyes/nose/mouth, there is a good chance that you may inhale those viral droplets. All other statements (A, C & D) are correct.

## PAGE 33-D

Wearing a mask is recommended for everyone (D) irrespective of age, gender, profession (A), or health status (B/C). In simpler words, masks prevent the spread of COVID-19 from infected to normal people and should always be worn so that nobody catches the disease.

## PAGE 36-B

It is generally not recommended to wear gloves (A), or reuse your mask (C), or wear a cloth mask at home (D). This leaves us with option B which correctly describes how to wear a mask. Start by washing your hands, hold the mask from its strings only, adjust it around your nose and jawline so that there are no gaps and wash your hands again after wearing it properly.

## PAGE 38-A

If the option of teleclinics is not available/affordable/feasible, a distance of 6 feet or 2-arms length should be maintained under all conditions. This is because the viral droplets can travel up to a maximum of 6 feet from an infected person. A mask should also be worn so that one does not inhale the viral droplets.

## PAGE 40-D

The aim behind all the precautionary measures is to prevent the inhalation (breathing in) of the droplets containing coronavirus. Keeping this in mind, wearing mask and gloves (A) will prevent the entry of the virus into the body, sanitizing hands (B) will kill the virus, and maintaining a 2-arms distance (C) will prevent its spread altogether. Thus, all options are correct.

## PAGE 43-C

There is no cure for COVID-19 as of yet. So drinking Senna Mukhi tea (A) will not heal COVID-19. COVID-19 is affecting the developed countries just as much as the developing ones, so it's not a propaganda against the emerging countries (B). The role of bats as a source of COVID-19 has not been confirmed yet (D). Hence, option C is correct as COVID-19 does put the elderly with underlying conditions at risk for severe disease.

## PAGE 46-B

Feeling stressed or lonely is very normal in times of COVID-19. However, there are ways to curb those emotions which include connecting with friends (A), performing deep breathing exercises (C), and reducing TV time (D) to prevent anxiety. However, maintaining social distance is a must which is not being followed in B.

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# Bibliography

Virus Pic: pixabay.comTitle credits:quora.com/profile/Peter-MatheusePolygon:www.canva.comSPIE & CW info: <https://www.aku.edu/cime/about/Documents/Newsletter%20August,%202017.pdf>MBD building: <https://www.aku.edu/news/PublishingImages/CIME-news.jpg>AKU logo:<https://www.aku.edu/Style%20Library/Images/EntityHeaders/EH-CIME-Desktop.gif>CIME pic: <https://www.aku.edu/cime/Documents/NewsletterJanuary2020.pdf>Radial meter: <https://www.vectorstock.com/royalty-free-vector/radial-gauge-scale-from-red-to-green-with-arrow-vector-2634126DSL> info:<https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html>IPP info: <https://www.health.com/condition/infectious-diseases/worst-pandemics-in-history>Film roll: <https://www.canva.comFilm> Canister: <https://www.canva.comPic> 1: [https://upload.wikimedia.org/wikipedia/commons/thumb/1/1e/Great\\_plague\\_of\\_london-1665.jpg/220px-Great\\_plague\\_of\\_london-1665.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/1/1e/Great_plague_of_london-1665.jpg/220px-Great_plague_of_london-1665.jpg) Pic 2:<https://images.squarespace-cdn.com/content/v1/57cf18ae6b8f5bFamily> pic:[https://www.freepik.com/premium-vector/big-family-father-mother-grandfather-grandmother-children\\_7526630.htm](https://www.freepik.com/premium-vector/big-family-father-mother-grandfather-grandmother-children_7526630.htm)Virus pic:<https://www.gettyimages.com/photos/covid-19Lungs>:<https://www.canva.comChina>:[https://www.freepik.com/premium-vector/china-box-gloves-fight-with-bad-coronavirus-infection-micro-bacteria-vector-flat-style-cartoon-character-illustration-isolated-white-background-china-corona-virus-epidemic-concept\\_6973866.htm](https://www.freepik.com/premium-vector/china-box-gloves-fight-with-bad-coronavirus-infection-micro-bacteria-vector-flat-style-cartoon-character-illustration-isolated-white-background-china-corona-virus-epidemic-concept_6973866.htm)Zoonotic: [https://www.pincipart.com/pindetail/iIJRxm\\_paronimusspp-salmonella-fecal-oral-route-clipart/Nocovid](https://www.pincipart.com/pindetail/iIJRxm_paronimusspp-salmonella-fecal-oral-route-clipart/Nocovid):[https://www.freepik.com/premium-vector/stop-mers-cov-sign-illustration-middle-east-respiratory-syndrome-coronavirus-sign\\_6721683.htm](https://www.freepik.com/premium-vector/stop-mers-cov-sign-illustration-middle-east-respiratory-syndrome-coronavirus-sign_6721683.htm)Bats and cats:[https://www.freepik.com/premium-vector/cat-bats-happy-halloween-celebration\\_5520601.htm](https://www.freepik.com/premium-vector/cat-bats-happy-halloween-celebration_5520601.htm)ALL facts:Kidshealth.org<https://study.com/academy/lesson/the-respiratory-system-lesson-for-kids.html><http://www.emro.who.int/health-topics/corona-virus/questions-and-answers.html><https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>Canva pics:<https://www.canva.comHow> the virus spreads pic:[https://image.freepik.com/free-vector/coronavirus-infographic-data\\_23-2148479653.jpg](https://image.freepik.com/free-vector/coronavirus-infographic-data_23-2148479653.jpg)info:<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>Who can catch covid19 pic:[https://files.nc.gov/covid/styles/card\\_photo/public/highrisk-card.jpg](https://files.nc.gov/covid/styles/card_photo/public/highrisk-card.jpg) CKwi035hveDNF9UY.cDyzFGokA.Wklkt&tok=NhcJRJeinfo:<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/groups-at-higher-risk.html>symptoms of covid19 pic:[https://image.freepik.com/free-vector/symptoms-covid-19-infographic-design\\_30590-197.jpg](https://image.freepik.com/free-vector/symptoms-covid-19-infographic-design_30590-197.jpg)Additional info:<https://www.who.int/indonesia/news/detail/08-03-2020-knowing-the-risk-for-covid-19>Mother pic:[https://image.freepik.com/free-vector/woman-with-cold-coughing\\_23-2148409494.jpg](https://image.freepik.com/free-vector/woman-with-cold-coughing_23-2148409494.jpg)Mother dr duo:<https://thumbs.dreamstime.com/b/happy-cute-kid-go-to-doctor-mom-164772495.jpg>Al info:<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>pic:[https://www.freepik.com/premium-vector/man-wearing-protective-medical-mask-have-symptom-fever-with-virus-spread-air-flat-style-world-corona-virus-covid-19-outbreaking-pandemic-attack-concept\\_7463488.htm](https://www.freepik.com/premium-vector/man-wearing-protective-medical-mask-have-symptom-fever-with-virus-spread-air-flat-style-world-corona-virus-covid-19-outbreaking-pandemic-attack-concept_7463488.htm)Molecular tests infographic:<https://www.asm.org/Press-Releases/2020/COVID-19-Resources>Test infographic:<https://www.compoundchem.com/2020/03/19/covid-19-testing/Serology> test infographic:<https://www.asm.org/Press-Releases/2020/COVID-19-Resources>Antibody vs serology infographic:<https://cdn.technologynetworks.com/tn/Resources/pdf/how-do-coronavirus-diagnostic-tests-work.pdf>Al info:<https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html><https://kidshealth.org/en/kids/guide-shots.html>Cure pic:[https://www.pincipart.com/picdir/middle/194-1946341\\_pharmacology-pill-clipart.png](https://www.pincipart.com/picdir/middle/194-1946341_pharmacology-pill-clipart.png)<https://cdn3.vectorstock.com/i/1000x1000/11/27/vaccination-child-cartoon-vector-15391127.jpg>Vaccine pic:[http://www.clipartpanda.com/clipart\\_images/clipart-image-of-a-syringe-13245812To](http://www.clipartpanda.com/clipart_images/clipart-image-of-a-syringe-13245812To) getter pic:[https://image.freepik.com/free-vector/doctors-scientists-people-laboratory-researches-lungs-organ-healthcare-medical-concept-flat-illustration-pulmonology-determine-diagnosis-disease-treatment-internal-organ-inspection\\_213110-156.jpg](https://image.freepik.com/free-vector/doctors-scientists-people-laboratory-researches-lungs-organ-healthcare-medical-concept-flat-illustration-pulmonology-determine-diagnosis-disease-treatment-internal-organ-inspection_213110-156.jpg)How should covid19 patients self-quarantine infographic:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>Covid positive in the house infographic:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>Caring for covid positives infographic:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>Best friends pic:[https://www.freepik.com/premium-vector/two-lovely-happy-best-friends-girls-hugging\\_1936975.htm](https://www.freepik.com/premium-vector/two-lovely-happy-best-friends-girls-hugging_1936975.htm)Self prevention infographic:<https://www.vexels.com/vectors/preview/191919/covid-19-prevention-infographic-template>Additional info:<https://www.who.int/westernpacific/emergencies/covid-19/information>Prevention in schools al info:<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html>Personal hygiene pic:[https://www.freepik.com/premium-vector/collection-illustrations-kids-personal-care\\_6520586.htm#page=1&query=personal%20hygiene&position=14](https://www.freepik.com/premium-vector/collection-illustrations-kids-personal-care_6520586.htm#page=1&query=personal%20hygiene&position=14)Daily monitoring pic:[https://image.freepik.com/free-vector/temperature-check-doctor-holding-non-contact-thermometer-hand\\_153097-16.jpg](https://image.freepik.com/free-vector/temperature-check-doctor-holding-non-contact-thermometer-hand_153097-16.jpg)School hygiene pic:[https://image.freepik.com/free-vector/cleaner-with-cleaning-products-housekeeping-service\\_18591-52057.jpg](https://image.freepik.com/free-vector/cleaner-with-cleaning-products-housekeeping-service_18591-52057.jpg)Early detection pic:[https://img.freepik.com/free-vector/man-wearing-mask-having-high-fever-shows-symptoms-coronavirus\\_152995-143.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/man-wearing-mask-having-high-fever-shows-symptoms-coronavirus_152995-143.jpg?size=626&ext=jpg)Parents or visitors pic:[https://www.freepik.com/premium-vector/sick-woman-with-thermometer-laying-bed\\_4698273.htm](https://www.freepik.com/premium-vector/sick-woman-with-thermometer-laying-bed_4698273.htm)Children or staff pic:[https://image.freepik.com/free-vector/kid-boy-reading-sofa\\_97632-656.jpg](https://image.freepik.com/free-vector/kid-boy-reading-sofa_97632-656.jpg)Basketball pic:[https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcQTAqw7Ulli-spAUyHg3YZ5thB4\\_gwRe7Uk5g&usqp=CAU](https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcQTAqw7Ulli-spAUyHg3YZ5thB4_gwRe7Uk5g&usqp=CAU)Staying away infographic:<https://i.insider.com/5e8351b514f18f4e7c58a6a8?width=1100&format=jpeg&auto=webp>Boy washing hands pic: <https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcRrFo7Rgdl8n9KGrAyN9msjG3mAmGJrWLN1dw&usqp=CAU>WHO right hand washing pic:[https://info.debgrou.com/fs-hubs/hand\\_washing\\_technique\\_steps.png](https://info.debgrou.com/fs-hubs/hand_washing_technique_steps.png)Girl with mask pic:[https://image.freepik.com/free-vector/woman-wearing-face-mask-young-woman-with-crossed-arms-gesture-stop-pandemic-concept-illustration-flat-style\\_213307-38.jpg](https://image.freepik.com/free-vector/woman-wearing-face-mask-young-woman-with-crossed-arms-gesture-stop-pandemic-concept-illustration-flat-style_213307-38.jpg)How to make your own mask infographic:<https://www.healthline.com/health/how-to-make-a-face-mask-with-filter>Mask types <https://mlsvco1-prod.s3.amazonaws.com/729e11b001/6627110f-c83c-4e94-82b7-63c4cc561a5c.png>Mom cooking pic:[https://img.freepik.com/free-vector/mother-cooking-prepares-foods-kitchen\\_1453-423.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/mother-cooking-prepares-foods-kitchen_1453-423.jpg?size=626&ext=jpg)Mask pic:<https://www.canva.com>Keys pic:<https://www.canva.com>Purse pic:<https://www.canva.com>WHO mask proper usage infographic:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>Grandpa pic:[https://image.freepik.com/free-vector/old-man-with-respiratory-protection-doctor\\_24877-62569.jpg](https://image.freepik.com/free-vector/old-man-with-respiratory-protection-doctor_24877-62569.jpg)Telemedicine definition:<https://www.canva.com>Telehealth pic:[https://img.freepik.com/free-vector/doctor-computer-laptop-consulting-online-internet-telemedicine-vector-illustration-flat-cartoon-design-top-view\\_101884-136.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/doctor-computer-laptop-consulting-online-internet-telemedicine-vector-illustration-flat-cartoon-design-top-view_101884-136.jpg?size=626&ext=jpg)Telehealth info:<https://timesofindia.indiatimes.com/img/74691500/Master.jpg><https://timesofindia.indiatimes.com/img/74691487/Master.jpg>Teleclinics pic:[https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcRuDXvA5vbevwr\\_gA2yEBB8IAYnf4qWsdimg&usqp=CAU](https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcRuDXvA5vbevwr_gA2yEBB8IAYnf4qWsdimg&usqp=CAU)Teleclinics info:[https://image.freepik.com/vector-gratis/doctor-linea-laptop\\_23-2148525682.jpg](https://image.freepik.com/vector-gratis/doctor-linea-laptop_23-2148525682.jpg)Disclaimer info:<https://timesofindia.indiatimes.com/img/74691487/Master.jpg>Grocery shopping pic:[https://image.freepik.com/free-vector/coronavirus-panic-buying-couple-running-with-full-cart-supermarket-stop-panic\\_167524-133.jpg](https://image.freepik.com/free-vector/coronavirus-panic-buying-couple-running-with-full-cart-supermarket-stop-panic_167524-133.jpg)Aku gs infographic:<https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcQI2T3nEBRDP2rwrGnmWkxy44L2rzt58pgRaiTu1zWzynB2Lp9&usqp=CAU>Know ws infographic:<https://files.nc.gov/ncdhhs/styles/main-image/public/Ws-sitepage.jpg?tok=yvztTPWUPWhatsapp> on phone pic:<https://www.canstockphoto.com/hand-holding-mobile-phone-and-send-49069642.html>WHO logo:[https://www.who.int/images/default-source/infographics/who-emblem.png?sfvrsn=877bb56a\\_2GOP](https://www.who.int/images/default-source/infographics/who-emblem.png?sfvrsn=877bb56a_2GOP) logo:<https://4.bp.blogspot.com/-VcLr2ciRKXw/UoHPFIUblw/AAAAAAAAADrw/1xtC-vsJETU/s1600/Government+of+Pakistan+Logo.jpg>Our world in data logo:<https://ourworldindata.org/uploads/2019/02/OurWorldinData-logo.png>Cdc logo:<https://p7.licipart.com/preview/338/244/843/centers-for-disease-control-and-prevention-public-health-cdc-influenza-others.jpg>Al WHO mythbusters:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>Oldies pic:[https://www.freepik.com/premium-vector/group-old-people-cartoon-characters-happy-elderly-friends-vector-illustration\\_4330096.htm](https://www.freepik.com/premium-vector/group-old-people-cartoon-characters-happy-elderly-friends-vector-illustration_4330096.htm)WHO Stress kickers infographic:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>Stress busters Info:<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>Pen thoughts ipic:[https://images.squarespace-cdn.com/content/v1/59f6cb9acc5c57a079c3a92/1550486696466-PG00J3634DXJXCXLJH3/ke17ZwdGBtodd18pDm48kNIEM88mrzHRsd1mQ3bxVct7gQa3h78H3Y0txjaiv\\_ofDoOvxcDmMkKdSyUqMSsMWxHk725yihHCLlrh801z4YTzHvnKhyp6Da-NYroOW3ZGj0BKy3azqk80C789l0uYj65ACIS1Ro5Gtg\\_5NxawwmiEEp2-p1PBN1Qfd0YvLs\\_GGcWkX6Y6WN\\_obWbw/Pink-pencil\\_mj.gif?format=300w](https://images.squarespace-cdn.com/content/v1/59f6cb9acc5c57a079c3a92/1550486696466-PG00J3634DXJXCXLJH3/ke17ZwdGBtodd18pDm48kNIEM88mrzHRsd1mQ3bxVct7gQa3h78H3Y0txjaiv_ofDoOvxcDmMkKdSyUqMSsMWxHk725yihHCLlrh801z4YTzHvnKhyp6Da-NYroOW3ZGj0BKy3azqk80C789l0uYj65ACIS1Ro5Gtg_5NxawwmiEEp2-p1PBN1Qfd0YvLs_GGcWkX6Y6WN_obWbw/Pink-pencil_mj.gif?format=300w)Online courses pic:[https://image.freepik.com/free-vector/entrepreneur-isometric-icons-creative-idea-sociality-purposefulness-self-education-success-isolated-grey\\_1284-28366.jpg](https://image.freepik.com/free-vector/entrepreneur-isometric-icons-creative-idea-sociality-purposefulness-self-education-success-isolated-grey_1284-28366.jpg)Book reading pic:<https://classroomclipart.com/images/gallery/Clipart/Reading/boy-reading-book-clipart-1695.jpg>Catch up with friends pic:[https://akm-img-a-in.tosshub.com/indiatoday/images/story/202004/smartphone-3572807\\_1280-770x433.jpeg?nTMkPHF3PvUezY4ZvuVn4lYkMpuEXrN](https://akm-img-a-in.tosshub.com/indiatoday/images/story/202004/smartphone-3572807_1280-770x433.jpeg?nTMkPHF3PvUezY4ZvuVn4lYkMpuEXrN)New recipes pic:<https://i.piningim.com/originals/b5/07/26/b50726aba4e68b821655e6616791bb1e.jpg>Board games pic:<https://centraltorontorealestate.files.wordpress.com/2010/06/monopoly.gif>Room cleaning pic:[https://img.freepik.com/free-vector/collection-young-people-cleaning-house\\_52683-22276.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/collection-young-people-cleaning-house_52683-22276.jpg?size=626&ext=jpg)Arts and crafts pic:<https://cdn5.vectorstock.com/i/1000x1000/56/79/cartoon-artist-painting-vector-2595679.jpg>crossword:<https://static.quickworksheets.net/realthumbs/327578-LRa5ic21zRdZfc.png>Word search:[https://en.islcollective.com/preview/202003/17/coronavirus-word-search-activity-fun-activities-games-quickworksheets\\_122756\\_1.jpg](https://en.islcollective.com/preview/202003/17/coronavirus-word-search-activity-fun-activities-games-quickworksheets_122756_1.jpg)World pic:[https://image.freepik.com/free-vector/coronavirus-prevention-infographic\\_23-2148522588.jpg](https://image.freepik.com/free-vector/coronavirus-prevention-infographic_23-2148522588.jpg)<https://www.conciiergeomedical.co.uk/wp-content/uploads/2015/03/Herd-immunity-300x197.gif>Injection pic:<https://www.youtube.com/channel/UCMGjRbmtowv4LAWvFIPkBOQAl> info:<https://www.sciencealert.com/why-herd-immunity-will-not-save-us-from-the-covid-19-pandemic>School pic:<https://www.unicef.org/coronavirus/what-will-return-school-during-covid-19-pandemic-look>Share what you learn pic:[https://image.freepik.com/free-vector/young-women-spending-time-together\\_23-2148239238.jpg](https://image.freepik.com/free-vector/young-women-spending-time-together_23-2148239238.jpg)Ask questions pic:[https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcSXZJdrpW1GzsYTu3EP\\_gXtcXyDB6h2wrGA&usqp=CAU](https://encrypted-tbn0.gstatic.com/images?q=tb%3AAND9GcSXZJdrpW1GzsYTu3EP_gXtcXyDB6h2wrGA&usqp=CAU)Talk to someone pic:[https://image.freepik.com/free-vector/two-men-gossiping-cafe\\_10045-237.jpg](https://image.freepik.com/free-vector/two-men-gossiping-cafe_10045-237.jpg)Don't stigmatise pic:[https://img.freepik.com/free-vector/kids-bullying-illustration\\_10045-402.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/kids-bullying-illustration_10045-402.jpg?size=626&ext=jpg)Wash your hands pic:<https://i.piningim.com/originals/7c/Oc/ael7cOc/aef7fbbdc2b2590b2cac1acdfb5.jpg>Protect yourself pic:<https://i.piningim.com/736x/ed/13/5d/ed135d6080b9e7c6885ef98d077d6920.jpg>Be a leader pic:[https://image.freepik.com/free-vector/leader-standing-big-winner-golden-cup\\_3446-647.jpg](https://image.freepik.com/free-vector/leader-standing-big-winner-golden-cup_3446-647.jpg)Don't share cups pic:[https://www.freepik.com/premium-vector/crockery-ceramic-cookware-set\\_6963052.htm](https://www.freepik.com/premium-vector/crockery-ceramic-cookware-set_6963052.htm)Sanitizer pic:<https://www.canva.com>Model good practices pic:[https://img.freepik.com/free-vector/young-man-coughing-elbow\\_23-2148490959.jpg?size=338&ext=jpg](https://img.freepik.com/free-vector/young-man-coughing-elbow_23-2148490959.jpg?size=338&ext=jpg)Dont touch face pic:[https://img.freepik.com/free-vector/situation-illustrating-woman-touching-her-face-during-spread-covid-19-infection-touch-your-face\\_135869-216.jpg?size=626&ext=jpg](https://img.freepik.com/free-vector/situation-illustrating-woman-touching-her-face-during-spread-covid-19-infection-touch-your-face_135869-216.jpg?size=626&ext=jpg)Virus pic:<https://www.canva.com>



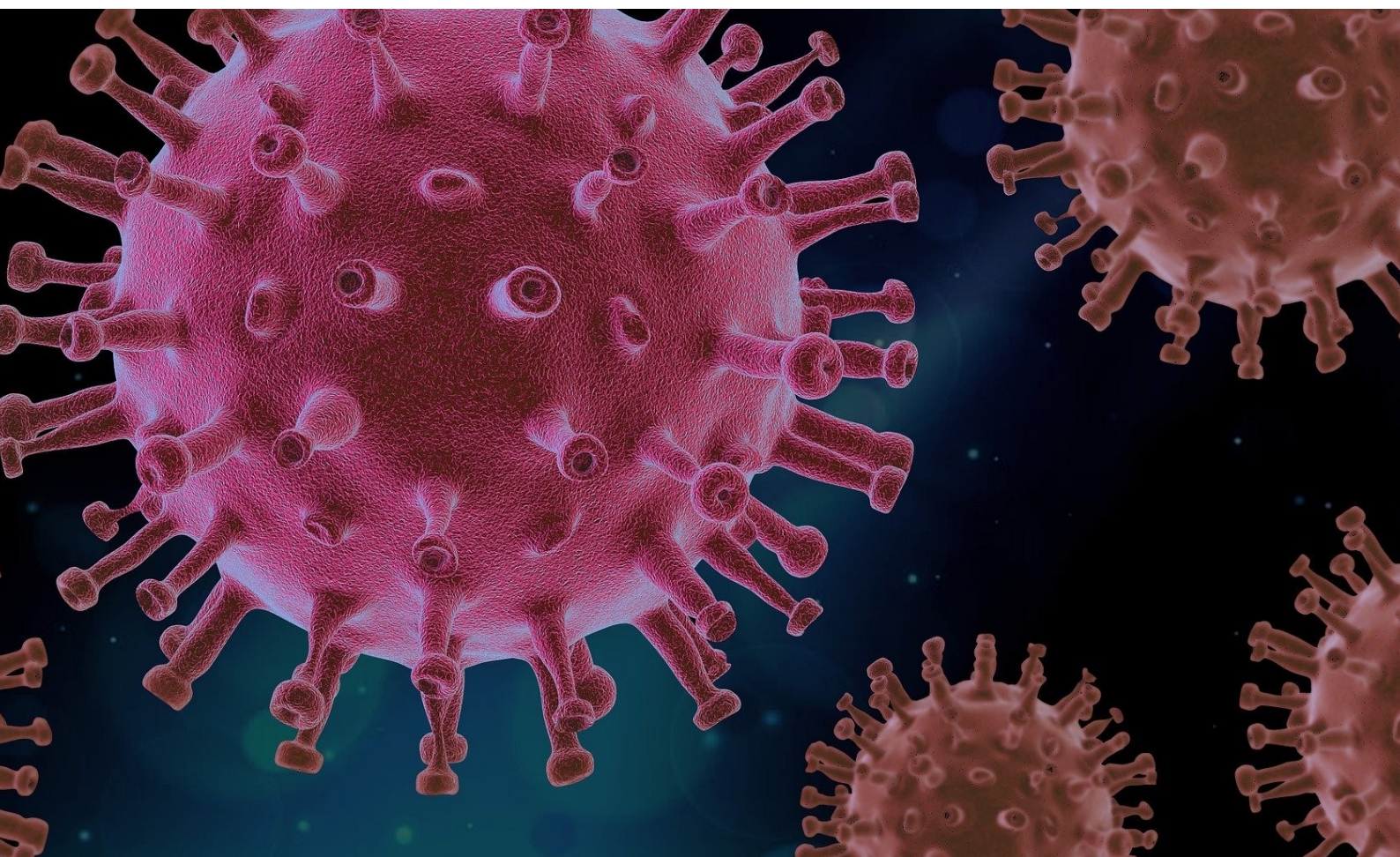


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