



Corona virus diseases

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ABSTRACT	<p>Coronaviruses are a major family virus(COVID-19). This is a highly infectious disease caused by the new Coronavirus (COVID-19) and can spread from person-to person through sneezing and coughing droplets. This virus has signs and symptoms similar to the common cold but is dangerous and if not reported early and managed by health workers it can cause severe illness in humans and can lead to death.</p> <p>Some coronaviruses cause disease in humans, and others in animals such as bats, camels, and cats. Human coronavirus usually causes mild illness, such as the common cold. (1)Animal coronaviruses rarely evolve to infect humans and spread among humans, causing severe illnesses such as Severe Acute Respiratory Syndrome (SARS), which appeared in 2002, and Middle East Respiratory Syndrome (MERS). MERS, which appeared in 2012. However, it can be difficult to determine the animal from which a coronavirus infection first starts spreading. In December last year, reports started to emerge that a coronavirus that specialists had never before seen in humans had begun to spread among the population of Wuhan, a large city in the Chinese province of Hubei. (2) .Since then, the virus has spread to other countries, both in and outside Asia, leading the World Health Organization (WHO) to declare this as a pandemic. The COVID-19 pandemic, which has already infected nearly 170,000 people out of 148 Countries, resulting in more than 6,500 deaths, 1 have the potential to reach a large number. The proportion of the world's population. Some estimates suggest 40-70 percent of The world population could be. It is hoped that it will succeed in reducing the transmission of nCoV-2019 and finding a treatment soon. In this paper, we try to explain more about this virus, the problems that caused for people and the methods used to diagnose COVID-19. (3)</p>
Keywords:	Corona, virus diseases, camels

1.1 Introduction

In the past decades, several new diseases have emerged in new geographic regions, with pathogens including Ebola, Zika, Nipah and Coronaviruses (CoVs). Recently, a new type of viral infection appeared in Wuhan, China, and the initial genomic sequence data for this virus does not match the previously serialized Corona virus, indicating a new strain of Coronavirus (2019-nCoV), which has now been described as severe. In December 2019, when Covid-19 appeared in a seafood market in Hunan in Wuhan, -southern China and quickly spread through

Around the world, the virus outbreak has declared a public health emergency of international concern. Coronavirus belongs to the family Coronaviridae, the order of viruses Nidovirales. It's a kind of encapsulated RNA virus, single-chain, positive-directional. It is found widely in nature. (4)

The fifth end contains from The viral genome has a methylated cap, while its third tip contains a polyadenine tail. (A) The size of the coronavirus genome ranges between

27 and 32 KB, making it the largest RNA genome. A virus detected so far. Coronavirus only infects vertebrates and is associated with a variety of diseases in humans and animals, such as diseases of the respiratory system, digestive system, and nervous system. (5)

Coronaviruses are a large group of viruses known to cause disease, such as MERS and SARS, whose clinical symptoms range from mild colds to acute lung infections. As for the emerging corona virus nCoV-2019 that was discovered in Wuhan, it is a new coronavirus that was not previously discovered in humans.

Studies of codon use indicate that this new virus may have been transmitted from an animal source such as bats. Facilitate early diagnosis by real-time PCR and next-generation sequencing, early-stage pathogen identification. On February 11, 2020, (WHO) officially announced Renamed clinical case COVID-19 (shortened Coronavirus disease-19) announced in a tweet. (6)

COVID-19 outbreak caused by the 2019 novel Coronavirus (SARS-CoV-2) started in Wuhan, Hubei Province China in December 2019. COVID-19 has turned the world upside down. Everything was affected. How do we live and interact with each other, how do we work and communication, how we move and travel. Every aspect of our lives has been affected. (7)

Although the world is closed Governments, epidemiologists, school administrators, business people and families around the world are already planning the following steps: How To reopen schools and companies safely, and how to move and travel without infecting or contracting infection, and how to support them. Hardest hit by the crisis - the millions who lost their livelihoods or loved ones, and how to ensure even already serious inequality It does not deteriorate further. (8)

1. 2 Diagnosis

The doctor or healthcare practitioner will ask you questions about your symptoms, people you have recently interacted with, any history of travel, your work and home environments. A blood test or respiratory specimen test (including sputum, saliva, etc.) may be done to confirm the diagnosis. Whenever possible, everyone who develops symptoms should be examined. Asymptomatic people who have had close contact with an infected or possibly infected person may also consider getting tested

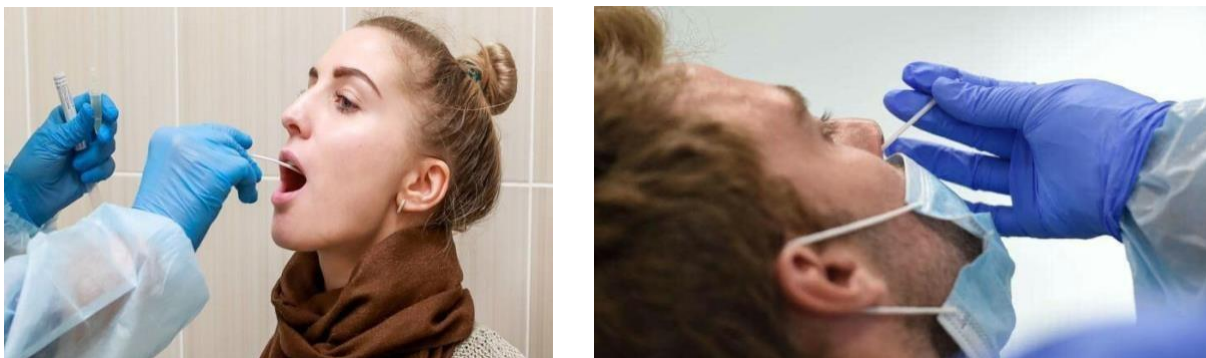


Figure 1. swab mouth and swab nose

Rapid tests for antigens (sometimes known as a rapid diagnostic test) detect viral proteins (known as antigens). Samples are taken using a swab from the nose and / or throat. These tests are less expensive than the PCR test and show results sooner, but they are usually less accurate. These tests perform better when there are more viruses circulating in the community and when a sample is taken from the person at a time when their capacity for infection is higher.(9)

The polymerase chain reaction is the most widely used molecular test. Samples are taken using a swab from the nose and / or throat. Molecular tests reveal the virus in the sample by amplifying the viral genetic material to detectable levels. For this reason, molecular testing is used to confirm an active infection, usually within a few days of exposure and around the time symptoms may begin

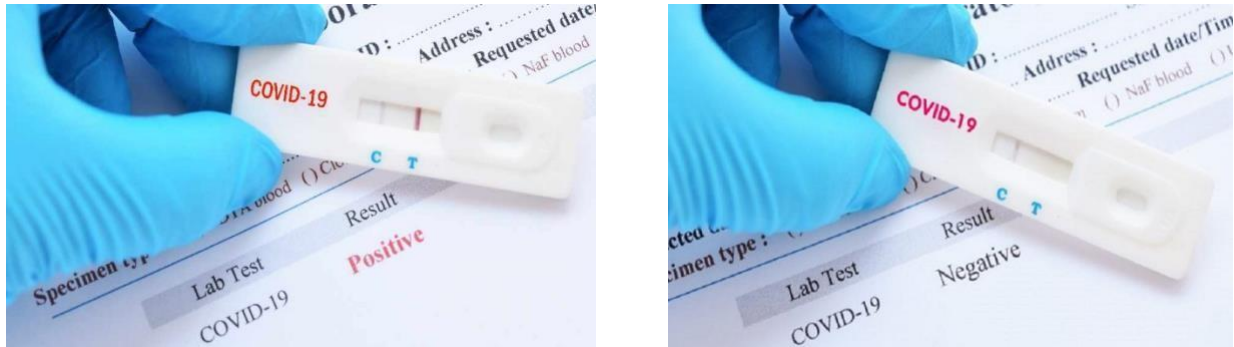


Figure 2. The Corona result is negative and positive

Antibody tests can tell us if a person has had the infection in the past, even if they have not had symptoms. Also known as serological tests, these tests are usually performed on a blood sample, which reveal the antibodies that the body has produced in response to the infection. In most people, antibody production begins after a period of days to weeks that can determine whether a person has been infected in the past. Antibody tests cannot be used to diagnose Covid-19 in the early stages of infection or disease but rather determine if a person has had the disease in the past.(10)

1.3 Symptoms

The most common symptoms of Covid-19 are :

- Fever
- Dry cough
- Stress



Figure 3. Corona symptoms

Other less common symptoms that may affect some patients include :

- Loss of taste and smell
- Nasal congestion
- Conjunctivitis (also known as red eyes)
- Sore throat

- Headache
- Muscle or joint pain
- Various patterns of rashes
- Nausea or vomiting
- Diarrhea
- Tremors or dizziness

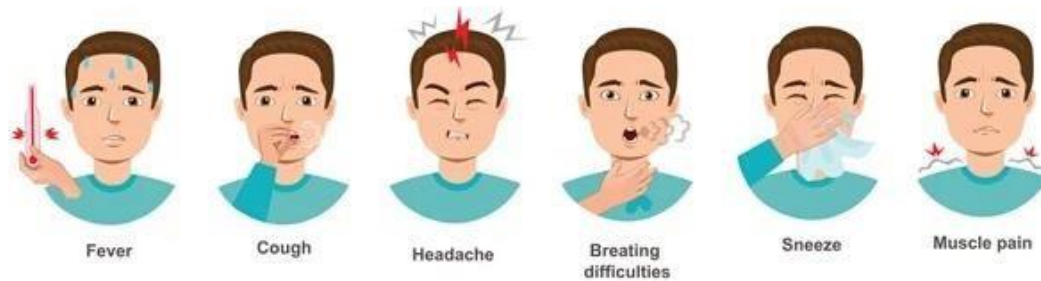


Figure 4. Corona symptoms

Symptoms are usually mild, and some people become infected but only have very mild symptoms or no symptoms at all.

Signs of severe Covid-19 disease include :

- shortness of breath
- Lack of appetite
- Confusion or confusion
- Constant pain or pressure in the chest
- High temperature (over 38 ° C)
- Other less common symptoms include :
- Irritability
- Confusion
- Decreased level of consciousness (sometimes associated with seizures)
- Anxiety
- Depression
- Sleep disorders



Figure 5. Latest Corona symptoms

More severe and rare neurological complications such as strokes, encephalitis, delirium, and nerve damage .(11)

People of all ages who have a fever and / or cough associated with difficulty breathing or shortness of breath, pain or pressure in the chest, or loss of speech or movement should seek medical attention immediately .

The duration from the time of exposure to Covid-19 until the onset of symptoms takes about five to six days on average, but it can range from one to 14 days. Therefore, people who have been exposed to the virus are advised to stay at home separately from others for 14 days, in order to prevent the spread of the virus, especially where testing is not readily available.

The risk of severe complications increases among people 60 years or older and people with underlying medical problems, such as high blood pressure, heart and lung problems, diabetes, obesity or cancer.

However, anyone can become infected with Covid-19, suffer serious complications, or die of any age.(12)

1.4 The difference between Corona and the flu

As the COVID-19 outbreak continues to evolve, comparisons have been drawn to influenza. Both cause respiratory disease, yet there are important differences between the two viruses and how they spread. This has important implications for the public health measures that can be implemented to respond to each virus

How are COVID-19 and influenza viruses similar?

Firstly : COVID-19 and influenza viruses have a similar disease presentation. That is, they both cause respiratory disease, which presents as a wide range of illness from asymptomatic or mild through to severe disease and death.

Secondly : both viruses are transmitted by contact, droplets and fomites. As a result, the same public health measures, such as hand hygiene and good respiratory etiquette (coughing into your elbow or into a tissue and immediately disposing of the tissue), are important actions all can take to prevent infection.(13)

How are COVID-19 and influenza viruses different?

The speed of transmission is an important point of difference between the two viruses. Influenza has a shorter median incubation period (the time from infection to appearance of symptoms) and a shorter serial interval (the time between successive cases) than COVID-19 virus. The serial interval for COVID-19 virus is estimated to be 5-6 days, while for influenza virus, the serial interval is 3 days. This means that influenza can spread faster than COVID-19.(13)

COVID-19 and the flu cause similar symptoms. The diseases can also cause no symptoms or mild or severe symptoms. Because of the similarities, it can be hard to diagnose which condition you have based on symptoms alone. Testing may be done to see if you have COVID-19 or the flu. You can also have both diseases at the same time. However, there are some differences. (14)

COVID-19 symptoms generally appear two to 14 days after exposure to SARS-CoV-

2. Flu symptoms usually appear about one to four days after exposure to an influenza virus. COVID-19 can cause more-serious illnesses in some people than the flu. Also, COVID-19 can cause different complications than the flu, such as blood clots and multisystem inflammatory syndrome in children.(14)














	SYMPTOM	FLU	COVID-19
	FEVER	✓	✓
	FATIGUE	✓	✓
	COUGH	✓	✓
	SORE THROAT	✓	✓
	HEADACHES	✓	✓
	RUNNY NOSE	✓	✓
	SHORTNESS OF BREATH	✓	✓
	BODY ACHES	✓	✓
	DIARRHEA AND/OR VOMITING	✓	✓
	ONSET	1-4 days after infection	About 5 days after infection but can range from 2-14 days
	LOSS OF TASTE AND/OR SMELL		✓
	RED, SWOLLEN EYES*		✓
	SKIN RASHES*		✓

Figure 6. The following table outlines the symptoms of COVID-19, the flu.

While there is only one antiviral treatment for COVID-19, there are several antiviral drugs that can be used to treat the flu. Also, you can get an annual flu vaccine to help reduce your risk of the flu. The flu vaccine can also reduce the severity of the flu and the risk of serious complications. The vaccine can be given as a shot or as a nasal spray. Further, transmission in the first 3-5 days of illness, or potentially pre- symptomatic transmission –transmission of the virus before the appearance of symptoms – is a major driver of transmission for influenza. In contrast, while we are learning that there are people who can shed COVID-19 virus 24-48 hours prior to symptom onset, at present, this does not appear to be a major driver of transmission.

The reproductive number – the number of secondary infections generated from one infected individual – is understood to be between 2 and 2.5 for COVID-19 virus, higher than for influenza. However, estimates for both COVID-19 and influenza viruses are very context and time-specific, making direct comparisons more difficult. Children are important drivers of influenza virus transmission in the community. For COVID-19 virus, initial data indicates that children are less affected than adults and that clinical attack rates in the 0-19 age group are low. Further preliminary data from household transmission studies in China suggest that children are infected from adults, rather than vice versa. (15)

While the range of symptoms for the two viruses is similar, the fraction with severe disease appears to be different. For COVID-19, data to date suggest that 80% of infections are mild or asymptomatic, 15% are severe infection, requiring oxygen and 5% are critical infections, requiring ventilation.

These fractions of severe and critical infection would be higher than what is observed for influenza infection.

Those most at risk for severe influenza infection are children, pregnant women, elderly, those with underlying chronic medical conditions and those who are immunosuppressed. For COVID-19, our current understanding is that older age and underlying conditions increase the risk for severe infection.

Mortality for COVID-19 appears higher than for influenza, especially seasonal influenza. While the true mortality of COVID-19 will take some time to fully understand, the data we have so far indicate that the crude mortality ratio (the number of reported deaths divided by the reported cases) is between 3-4%, the infection mortality rate (the number of reported deaths divided by the number of infections) will be lower. For seasonal influenza, mortality is usually well below 0.1%. However, mortality is to a large extent determined by access to and quality of health care. (16)

1.5 Prevention & Precaution of COVID-19

People should stay aware of the latest information on the COVID-19 outbreak provided by WHO and Follow the directions of your local health authority and prevent secondary infections, interrupt human-to-human transmission to your close contacts, health care workers and prevent further international spread. Maintain your safety by taking some simple precautions, such as physical spacing and wearing a muzzle, especially when it is not possible to maintain physical spacing, maintain good ventilation in rooms, avoid gatherings and close contact, clean your hands regularly, and cough into your bent elbow or a tissue.(17)



Figure 7. Wear muzzle

- Wash your hands regularly and thoroughly with soap and water for at least 20 seconds or with an alcohol based hand rub (hand sanitizer that contains at least alcohol) completely cover your hands and rub %60 them together until they do not dry especially after you have been visited a public place, or after blowing your nose, sneezing or coughing.(18)



Figure 8. wash hands and Sterilization of hands

- Maintain social distancing (maintain at least 1 metre or feet distance between yourself and anyone) and avoid 3 close contact with people who are sick (who is coughing or sneezing). When infected individuals cough or sneezes, they spray small droplets from their nose or mouth which may contain COVID-19 virus. The person can breathe in these droplets.
- Avoid large events and mass gatherings.(18)

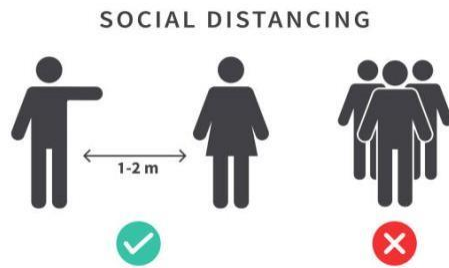


Figure 9. Social distancing



Figure 10. Avoid hands shake

- Whenever you cough or sneeze cover your mouth and nose with a tissue paper.immediately with antiseptic soap and water
- Throw used tissues in the trash and wash your hands.
- Avoid direct physical contact (including physical examination and exposure) to respiratory and other body secretions.(18)



Figure 11. Stay home stay safe

- Apply disinfectant daily on frequently touched surfaces ,This includes desks, phones, keyboards, toilets, faucets, tables, doorknobs, light switches, countertops, handles and sinks.
- Keep the room well ventilated.
- Stay positive by staying in touch with loved ones over the phone or the Internet,and by exercising at home.(18)

1.6 Injuries, healing and mortality

Since 31 December 2019 and as of week 2021-22, 174 032 728 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 3 738 030 deaths.(19)

Cases have been reported from:

Africa: 4 928 439 cases; the five countries reporting most cases are South Africa (1 696 564), Morocco (521 426), Tunisia (356 750), Ethiopia (272 914) and Egypt (267972).

Asia: 46 272 377 cases; the five countries reporting most cases are India (28 909 975), Iran (2 966 363), Indonesia (1 856 038), Philippines (1 269 478) and Iraq (1224 992).

America: 69 102 067 cases; the five countries reporting most cases are United States (33 362 633), Brazil (16 947 062), Argentina (3 977 634), Colombia (3 593 016) and Mexico (2 434 562).
 Europe: 53 651 676 cases; the five countries reporting most cases are France (5 712 753), Turkey (5 287 980), Russia (5 126 437), United Kingdom (4 516 892) and Italy (4 232 428)
 Oceania: 77 464 cases; the five countries reporting most cases are Australia (30 175), French Polynesia (18 889), Papua New Guinea (16 327), Guam (8 204) and New Zealand (2 326).
 Other: 705 cases have been reported from an international conveyance in Japan.(19)

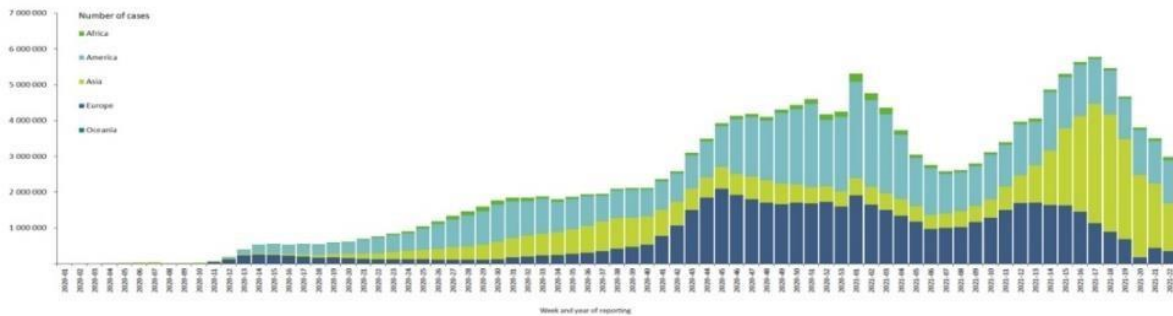


Figure 12. Decreased and increased numbers of injuries

Deaths have been reported from :

Africa: 132 347 deaths; the five countries reporting most deaths are South Africa (56 974), Egypt (15 352), Tunisia (13 027), Morocco (9 178) and Ethiopia (4 209).
 Asia: 652 295 deaths; the five countries reporting most deaths are India (349 186), Iran (81 063), Indonesia (51 612), Philippines (21 898) and Pakistan (21 323).
 America: 1 808 880 deaths; the five countries reporting most deaths are United States (597 628), Brazil (473 404), Mexico (228 838), Peru (186 757) and Colombia (92 496).
 Europe: 1 143 108 deaths; the five countries reporting most deaths are United Kingdom (127 840), Italy (126 523), Russia (123 787), France (110 027) and Germany (89 244).
 Oceania: 1 394 deaths; the five countries reporting most deaths are Australia (910), Papua New Guinea (164), French Polynesia (142), Guam (139) and New Zealand (26). Other: 6 deaths have been reported from an international conveyance in Japan.(19)

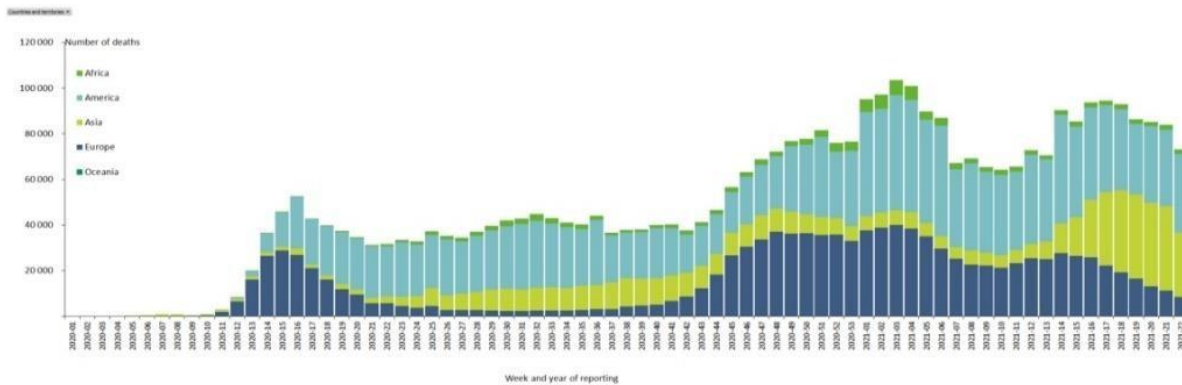


Figure 13. Decreasing and increasing mortality

1.7 How to wear the mask properly so I decided to wear a muzzle follow the instructions below:

1. Before touching the mask, clean your hands rub them with a disinfectant whole or wash them with soap and water
2. Check the sleeve and make sure that they are free from cracks and holes .
3. Select the upper end of the muzzle (the position of the metal strip).
4. Make sure the right side of the muzzle is directed outward (colored side) .
5. Put the muzzle on your face . Press the metal strip or party cardboard muzzle into the shape of your nose .
6. Pull the bottom of the muzzle to cover your mouth and chin .
7. Don't touch the mask, as long as you wear it for protection.
8. Use, remove the muzzle by removing the tape behind the ears, taking care to keep it away from your face and clothes to avoid contact with potentially contaminated parts of the muzzle .
9. Get rid of the used muzzle immediately by throwing it into a closed trash can . Do not use the used muzzle again .
10. Clean your hands after contact with or throwing away the muzzle, either rubbing them with an alcohol disinfectant or washing them with soap and water if they are clearly dirty .
11. Keep in mind that there is a global shortage in medical masks, surgical masks of type N95). These gags should therefore be kept for the exclusive use of health care workers, as far as possible.(20)

1.8 How long does the virus stay on different surfaces ?

The most important thing to know about the survival of coronavirus on surfaces isthat they can be easily disinfected by ordinary household sterilization solutions that kill the virus . Studies have shown that the covid-19 virus can survive on plastic and stainless steel for 72 hours, on copper for less than 4 hours and on cardboard for

less than 24 hours . As usual, clean your hands by rubbing them with alcohol hand sanitizer or wash them with soap and water . And avoid touching your eyes, mouth or nose .(21)

1.9 How to shop safely?

When you go shopping, keep at least one meter distance between you and others, avoid touching your eyes, mouth and nose . Before you start shopping, then sterilized grab a cart or shopping cart, if possible once you return home, wash your hands good as well as after handling your purchases and stored . There are currently no confirmed cases of covid-19 transmitted through food or canned food.(21)

1.10 How to wash fruits and vegetables?

Fruits and vegetables are an important component of any healthy diet. Should be washed as you do in normal circumstances :

before touching vegetables and fruits, wash your hands thoroughly with soap and water . Then wash them thoroughly with clean running water, especially if you eat them raw.(21)

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds



Figure 14. The right way to wash hands

1.11 Who are the people exposed to COVID-19?

All people are exposed to the COVID-19 virus. As this virus infects both people with normal immunity and those who are immunocompromised. Whether a person becomes ill depends on how much they are exposed to the virus. If you are exposed to a large number of viruses at once, you could get sick even if your immune function is normal. People with weakened immune systems, such as the elderly, pregnant women, or those with hepatic and renal dysfunction, are at risk of developing the disease faster and more severely.(22)

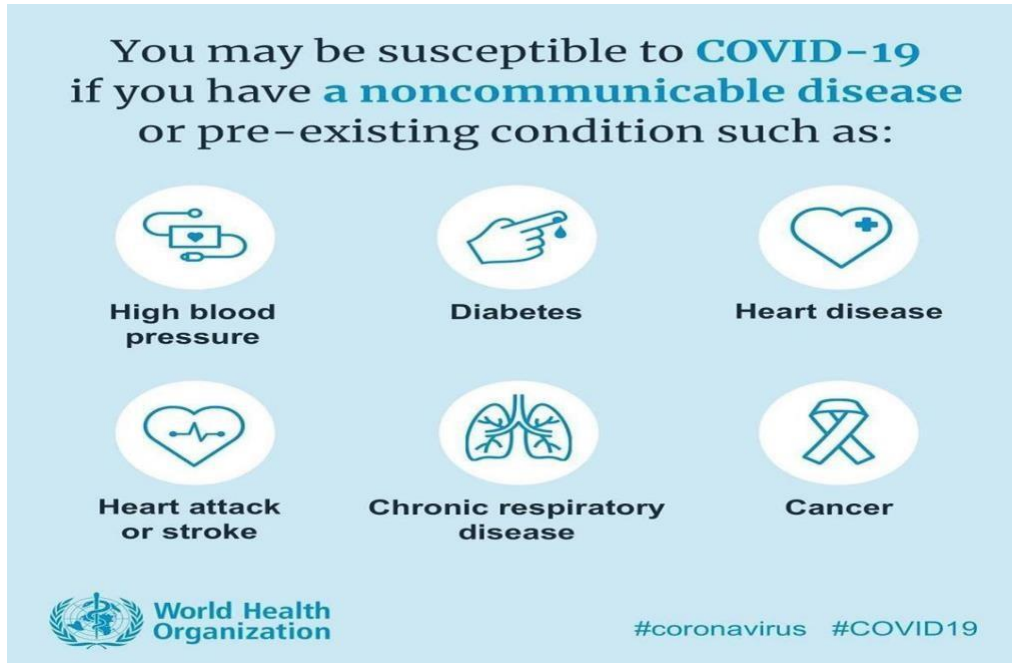


Figure 15. The most offered people for the infection of Corona

1.12 Isolation and quarantine

In order to contain the spread of infectious diseases, public health authorities believe the many strategies. Isolation and Quarantine are two of these Strategies. Both are common public health practices and aim to reduce the likelihood that infected people will spread the infection to others. They can be committed voluntarily or compulsorily by public health authorities. The strategies differ from each other as isolation applies to people Known to have the disease, while the quarantine applies to those whoknow they have one but they didn't get sick after.(23)

Quarantine: it is for people who have been infected but not yet sick

Quarantine refers to the separation and restriction of the movement of persons who are not yet healthy, but have been exposed to an infectious agent and may therefore

They become contagious to others. Quarantine may be used when :

person or a well-defined group of people has been exposed to a serious and very contagious disease.

Resources must be made available for the care of quarantined persons and Provides resources for quarantine implementation, maintenance and provision of basic services.(24)

Includes quarantine a wide range of strategies to combat ailments that can be used individually or in combination, including :

- voluntary booking at home for a short period of time
- strictions on the roaming and travel of those who may have been infected.
- restrictions on the entrances and exits of the area.
- travel ban and charging attended .And getting out of the house is only necessary. May include other measures to combat the spread of diseases, each of the following:
- restrictions on gathering in groups, for example, (school events)
- cancellation of public events and events.

- suspend public gatherings and close public places such as theaters and cinemas .
- closure of public transport networks or general restrictions on travel by air, rail or water.(25)

If you feel unwell, even with very mild symptoms such as mild fever or aches, you should isolate yourself by staying home . Even if you think you haven't had a covid-

19 infection but you have these symptoms, isolate yourself and monitor your symptoms . Chances of transmission of infection in the early stages of the disease when the symptoms are mild, so it is very important to promote yourself early . If you do not show any symptoms but you have contact with an infected person, stay quarantined for 14 days . If you have been confirmed (by laboratory examination) to be infected with covid-19, you should isolate yourself for 14 days even after the symptoms have faded, as a precaution . It is not yet known exactly how long a person remains contagious after recovering from the disease . Follow the national guidelines on self-insulation .

Stay home and yourself even if you have mild symptoms such as cough, headache, fever, light, to be recovering . Ask someone else to bring you your purchases . And if you have to leave the House, put a muzzle to avoid transmitting infection to others

.Avoiding contact with others protects them from the possibility of infection with covid-19 and other viruses.(25)

Choose for insulation a spacious, well-ventilated separate room with a toilet and hand cleaning supplies . If no separate room is available, at least one metre apart from the sleeping beds . Keep at least one meter away from others, including your family members . Monitor your symptoms on a daily basis . Isolate yourself for 14 days even if you feel healthy . If you have symptoms of difficulty in breathing consult a doctor immediately .

Stay positive and energetic by staying in touch with your loved one by phone or online, or by doing some exercise at home .The goal of self-quarantine is to prevent transmission . People who get covid-19 can transmit the infection to others immediately, so quarantine can prevent transmission .(26)

Evidence available to date suggests that children and young adults are less likely to develop severe disease complications, but this is still possible in this age group . Children and adolescents should follow the same guidelines on self-quarantine and self-isolation if they are at risk of infection or have symptoms . It is especially important that children avoid contact with older people and others who are more likely to develop severe complications .

One of the benefits of quarantine is less pollution in the world as a result of the cessation of factories, factories, cars and others that were the main cause of pollution .(26)

1.13 Distance education during the Corona pandemic

The corona virus pandemic has affected educational systems worldwide, leading to the total closures of schools, universities and colleges. Most countries have recommended using distance learning programs and opening educational applications and platforms that Educational institutions and teachers can use to reach remote learners and reduce educational disruption. Distance education depends on development of information and communication technologies . The world is currently witnessing the emergence and availability of Corona virus, which shell all institutions in the state Especially educational institutions at all levels, several countries have been forced to arrest the study Resort to quarantine as a preventive measure against this killer virus.(27)

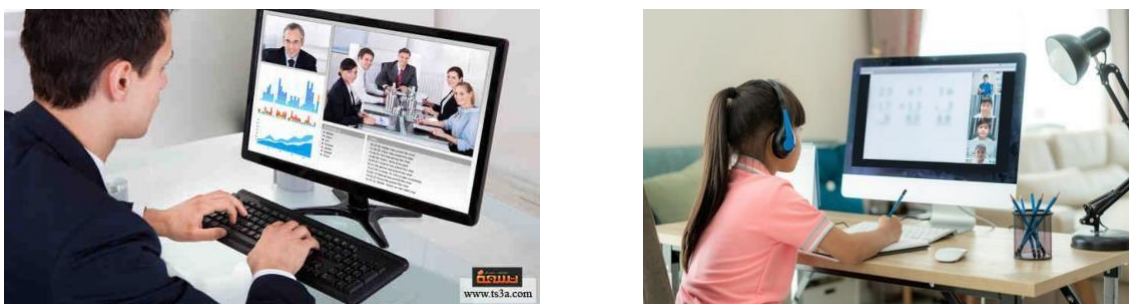


Figure 16. Distance education during the Corona pandemic

Through the above we conclude that distance education is important at present Because it is the only solution to complete the programs in the time of outbreak of Corona virus pandemic (covid- 19) and especially after the imposition of quarantine and the closure of all educational institutions, as Education is among the areas affected by this pandemic. Where to date 28 March 2020 Corona virus caused more than 1.6 billion children and young people on education in 161 countries Any 80% of the students are at world school. In order to complete lessons and lectures for students and students must be created An educational atmosphere allows them to complete distance lessons.(27)

1.14 Corona and pregnancy

Pregnant women or recent pregnant women are more advanced or suffering from weight gain or basic medical situations such as blood pressure and diabetes, are more vulnerable to Kovid-19 uniforms. It also seems that when pregnant women are infected with uniform disease, more need to receive care in intensive care units compared to non-pregnant women in childbearing age .(28)

However, given the changes in the body of the pregnant woman and its immune system, it is known that some respiratory diseases may have a bad impact on pregnant women. It is therefore important to take backup measures to protect themselves from Kovid-19 and to inform the doctor or health care provider in any possible symptoms (including fever, cough or difficulty of breathing) .

We still do not know if the virus can move from the infected pregnant woman in covid -19 to the fetus or child during pregnancy or birth. So far, we have not found an active virus in liquid samples around the child in the uterus or breast milk .(28)

Can women breastfeed her child?

Women infected with Kovid -19 can exercise breastfeeding. They must follow the following measures

- Application of respiratory hygiene practices during breastfeeding and putting amuzzle if they are washed .
- hand washing before touching the baby and after touching.
- cleaning the surfaces theyl and sterilized continuously.

We do not know much about Kovid -19 during pregnancy, but obviously ladies pregnant for age More vulnerable to the disease if they are in the same age group and they have factors Similar danger

Pregnancy occurs changes in the immune system in the body and generally affect women's response to infections Viral in general causes some cases in existence of more severe symptoms. However It is clear now, it is not likely to suffer from severe symptoms of pneumonia Compared to non-pregnant women) After taking into account other factors such as age, and body mass index And associated diseases such as diabetes or hypertension .

Fortunately, most of the ladies who are shown in Kovid - 19, during pregnancy, recovered before The baby has begun .(29)

1.15 Economic traces

The spread of Corona is rapid and killed by the international economic centers, has spread its negative effects into the Arab region. Corona Enter the global economy of recovery room. The economic effects of the spread of the new Corona virus are numerous and deep, since the growth rates of world economy are expected to decline. Not too long when the global economy growth and more optimistic is now. (30)

According to the World Economic Economic Outlook World Economy in January 2020, the global economy was in a state of recovery, where he expected the global growth rate of 2.9% in 2019 was equivalent to 3.3% In 2020, to 3.4% by 2021. The Fund experts has established these optimistic estimates - then - on the growth of world industrial output, improving global trade when in the horizon, there are signs of some progress on the distortion of the trade war crisis between The world economy, China and the United States. Now and with the new Corona epidemic, the wave of optimism has went to the wind drawers and replaced with them positive growth forecasts and replaced by a pessimistic wave that warns a global wave. According to UNCTAD, the global economy is expected to lose US \$ 1 trillion - as a result of the spread of Corona virus and reduced world growth to less than 2.5% and to enter a large group of countries in a wave of recession. The fact is that this is not the first

time in which epidemics are spread, and the accompanied by human and economic losses. In 2003, SARS SARS - also spread - in China, but experts expect that economic losses this time will be more visible. The tourist sector and entertainment industry (such as cinema and theaters) are one of the most affected sectors to spread the new Corona virus. The industrial sector is expected to be affected by three major factors. The first factor is stopping production, where the virus hit the World Industrial Production Center in East Asia, as well as the United States and Germany. The second factor is to disrupt global supply chains. While the third factor is the decline in global demand and global trade.(30)

It is not a surprise that the global crisis for the spread of the new Corona epidemic is shaded on the Arab region, with an economic effects. Arab economies are expected to be negatively affected by declining global economic growth rates. Arab States are an economical opening and communicated to the global economy through many channels, including tourism, and oil exports revenues. In this context, the proliferation of Corona virus is expected to increase the mud, and raise the economic cost under the inflammatory area of geopolitical events. For tourism, the travel movement comes from the Arab region, with some Arab countries such as air intimidation, while Saudi Arabia has disrupted religious tourism for Umrah performance in an attempt to reduce the spread of the virus. It must be noted that it is difficult to predict all economic impacts and limit them, since the situation in an ongoing development, and no one knows how long the new Corona epidemic crisis will continue.(31)

Despite the gloomy pessimism that covered most international reports dealing with the negative economic effects of the spread of Corona virus, there is a glimmer of light. For the emergence of what may prompt a slight improvement in environmental pollution limitation indicators; Due to shrinking the volume of industrial activities is significantly responsible for global warming phenomenon. In this regard, some reports indicate that the frequency of the frequency of economic activity caused by the spread of the new Corona virus, as well as the travel movement in many regions around the world, has led to a significant improvement in the atmosphere and decline in carbon dioxide emission rates in the air. According to the International Energy Agency (IAEA), demand for oil demand is declined as a result of a decline in transport and travel sharply following the spread of the virus, has led to a decline in carbon dioxide emissions in the air.(32)

1.16 Corona profits

In addition to the remarkable improvement in air quality as a result of declining economic activity, there are many other beneficiaries of the spread of the new Corona virus. It comes on top of the beneficiaries makers, gloves, and hand-to-sterilization, where individuals are quick to acquire these goods trying to protect themselves and their families from the infection of the virus. The e-commercial sector companies are also included as Amazon Commercial Esson under the umbrella of the beneficiaries of the spread of the virus, as under the constraints imposed on gatherings in many countries, shopping over the Internet is the only refuge for many individuals. It is also expected - also - to benefit pharmaceutical companies operating on the production of antiretrovirals such as the new Corona virus. Telecom companies also advantage.(33)

1.17 Corona vaccines discovered

At present, specific medications are not available. There is only symptomatic treatment and supportive treatment. The drugs and vaccines for the disease are still under development. The development of a safe and effective vaccine takes some time, but thanks to unprecedented investment in research and development and thanks to close global cooperation, scientists can develop a vaccine against Kovid -

19 at record time, while maintaining strict evidence-based standards. There are currently more than 200 extra vaccine filter under development and many of which have reached the phase of clinical trials (56 clinical trials and 166 before clinical trials). Some of these vaccines are now in the third phase of clinical trials that are considered the last step before approval.(34)

On 31 December 2020, the World Health Organization (PFIZER / BIONTECH MRNA) (BNT162B2)

was adopted for emergency use, making it the first vaccine receiving emergency authentication from the World Health Organization since the outbreak of the disease for a year.(35)



Figure 17. Discover the vaccine

There are now several vaccines that are in use. The first mass vaccination programme started in early December 2020 and the number of vaccination doses administered is updated on a daily basis here. At least 13 different vaccines (across 4 platforms) have been administered.

- The Pfizer/BioNTech Comirnaty vaccine was listed for WHO Emergency Use Listing (EUL) on 31 December 2020.
- The SII/Covishield and AstraZeneca/AZD1222 vaccines (developed by AstraZeneca/Oxford and manufactured by the State Institute of India and SK Bio respectively) were given EUL on 16 February.
- The Janssen/Ad26.COV 2.S developed by Johnson & Johnson, was listed for EUL on 12 March 2021.
- The Moderna COVID-19 vaccine (mRNA 1273) was listed for EUL on 30 April 2021 and the Sinopharm COVID-19 vaccine was listed for EUL on 7 May 2021.
- The Sinopharm vaccine is produced by Beijing Bio-Institute of Biological Products Co Ltd, subsidiary of China National Biotec Group (CNBG).(35)

Since COVID vaccines were developed only in the past months, it is too early to know the duration of protection from COVID-19. The search continues to answer this question. However, it is encouraging that the available data indicate that most people recover from COVID-19 develops an immune response that provides at least a period of protection against injury again - although we are still learning how strength and duration of this protection.(36)

The COVID-19 vaccines are safe for most people 18 years and older, including those with pre-existing conditions of any kind, including auto-immune disorders. These conditions include: hypertension, diabetes, asthma, pulmonary, liver and kidney disease, as well as chronic infections that are stable and controlled.

Clinical trials in some countries are looking at whether you can have a first dose from one vaccine and a second dose from a different vaccine. There isn't enough data yet to recommend this type of combination.(37)

Now that the vaccines have been determined to be safe for adults, they are being studied in children. Once those studies have been completed, we should know more and guidelines will be developed. In the meantime, make sure children continue to physical distance from others, clean their hands frequently, sneeze and cough into their elbow and wear a mask if age appropriate.(37)

1.18 Possible side effects of the corona virus vaccine

Kovid vaccine can cause 19 minor side effects after the first or second dose, and include:

- Pain, redness or swelling in place injecting vaccine.
- Fever.
- Exhaustion.
- Headaches.
- Muscle pain.

- Cough.
- Joint pain.
- Nausea and vomiting.
- Feeling.
- Swollen lymph nodes.

Potentially controlled for 15 minutes after taking a covid vaccine 19 to make sure the doctor of any reaction directly may occur. Most side effects occur during the first three days of receiving the vaccine and usually continues for only one or two days.(38)

Since clinical trials on Covid's 19 vaccines have only started in the summer of 2020, it is not yet clear whether these vaccines have long-term side effects. But vaccines rarely cause long-term side effects. Many people and celebrities have volunteered around the world to try the vaccine. The volunteers are informed of the risk of this experience.



Figure 18. Experience the vaccine

Scientists say volunteers in the "challenging studies" are usually young people, where they are the risk of serious diseases is relatively low, and they will be accurately and carefully monitored. Of the supporters of the idea, according to "the Hill", 35 US House members realize their risk and are willing to do in order to help save the lives of others.(39)

Researchers around the world are racing to develop vaccines for a deadly virus. However, these researchers confirm that the injection of hundreds of young people, the virus is likely to cause severe symptoms and may sometimes be fatal. But it is important to remember that the journey from developing a vaccine to its license and out of large quantities and widely used is a long journey. Once the vaccine gets the required license, it will be very necessary to make it available in time and in a fair manner, for those who are in need.(40)

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