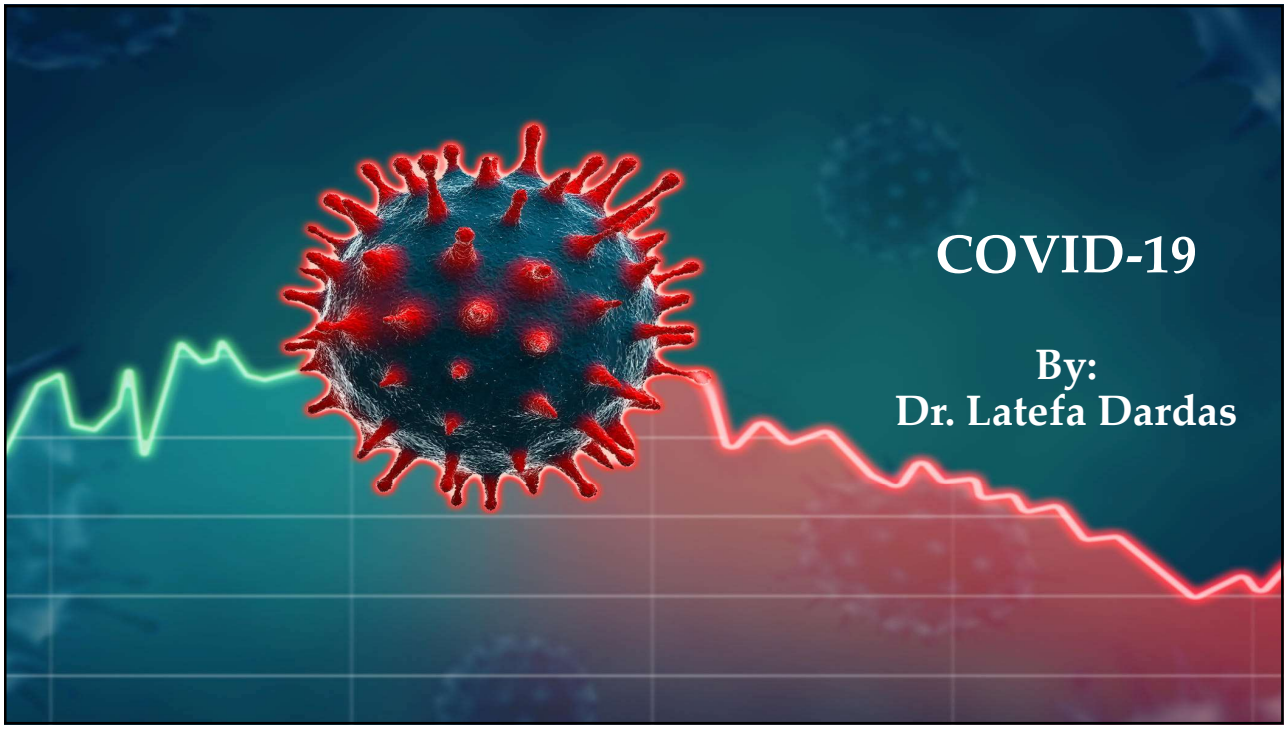

COVID-19

By:
Dr. Latefa Dardas

COVID-19

- COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2. The World Health Organization (WHO) first learned of this new virus on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China.
- On February 11, 2020 the WHO announced an official name for the disease that is causing the 2019 novel coronavirus outbreak, COVID-19.

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Coronavirus

- Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV).
- A novel coronavirus (CoV) is a new strain of coronavirus that has not been previously identified in humans. The new, or "novel" coronavirus, now called 2019-nCoV, had not previously detected before the outbreak was reported in Wuhan, China in December 2019.

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Coronavirus

- Coronaviruses are ***zoonotic***, meaning they are transmitted between animals and people.
- Several known coronaviruses are circulating in animals that have not yet infected humans.

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Is the new virus the same as SARS?

- No, 2019-nCoV is from the same family of viruses as Severe Acute Respiratory Syndrome (SARS-CoV) but it is not the same virus.

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Signs and Symptoms

6

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Signs and Symptoms

- For confirmed 2019-nCoV infections, reported illnesses have ranged from people with mild symptoms to people being severely ill and dying. The most common symptoms of COVID-19 are
  - Fever
  - Dry Cough
  - Fatigue

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Signs and Symptoms

- Other symptoms that are less common and may affect some patients include:
  - Loss of taste or smell,
  - Nasal congestion,
  - Conjunctivitis (also known as red eyes)
  - Sore throat,
  - Headache,
  - Muscle or joint pain,
  - Different types of skin rash,
  - Nausea or vomiting,
  - Diarrhea,
  - Chills or dizziness.

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Signs and Symptoms

- Symptoms of severe COVID-19 disease include:
  - Shortness of breath,
  - Loss of appetite,
  - Confusion,
  - Persistent pain or pressure in the chest,
  - High temperature (above 38 °C).

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Signs and Symptoms

- Other less common symptoms are:
  - Irritability,
  - Confusion,
  - Reduced consciousness (sometimes associated with seizures),
  - Anxiety,
  - Depression,
  - Sleep disorders,
  - More severe and rare neurological complications such as strokes, brain inflammation, delirium and nerve damage.

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Signs and Symptoms

- People of all ages who experience fever and/or cough associated with difficulty breathing or shortness of breath, chest pain or pressure, or loss of speech or movement should seek medical care immediately.

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As a smoker, am I likely to get more severe symptoms if infected?

- Smoking any kind of tobacco reduces lung capacity and increases the risk of many respiratory infections and can increase the severity of respiratory diseases. COVID-19 is an infectious disease that primarily attacks the lungs. Smoking impairs lung function making it harder for the body to fight off coronaviruses and other respiratory diseases. Available research suggests that smokers are at higher risk of developing severe COVID-19 outcomes and death.

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As a smoker, is my risk of getting the COVID-19 virus higher than that of a non-smoker?

- Currently, there are no peer-reviewed studies that have evaluated the risk of SARS-CoV-2 infection associated with smoking. However, tobacco smokers (cigarettes, waterpipes, bidis, cigars, heated tobacco products) may be more vulnerable to contracting COVID-19, as the act of smoking involves contact of fingers (and possibly contaminated cigarettes) with the lips, which increases the possibility of transmission of viruses from hand to mouth. Smoking waterpipes, also known as shisha or hookah, often involves the sharing of mouth pieces and hoses, which could facilitate the transmission of the COVID-19 virus in communal and social settings.

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How long does it take to develop symptoms?

- The time from exposure to COVID-19 to the moment when symptoms begin is, on average, 5-6 days and can range from 1-14 days. This is why people who have been exposed to the virus are advised to remain at home and stay away from others, for 14 days, in order to prevent the spread of the virus, especially where testing is not easily available.

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What happens to people who get COVID-19?

- Among those who develop symptoms, most (about 80%) recover from the disease without needing hospital treatment. About 15% become seriously ill and require oxygen and 5% become critically ill and need intensive care.
- Complications leading to death may include respiratory failure, acute respiratory distress syndrome (ARDS), sepsis and septic shock, thromboembolism, and/or multiorgan failure, including injury of the heart, liver or kidneys.
- In rare situations, children can develop a severe inflammatory syndrome a few weeks after infection.

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What happens to people who get COVID-19?

- People aged 60 years and over, and those with underlying medical problems like high blood pressure, heart and lung problems, diabetes, obesity or cancer, are at higher risk of developing serious illness.
- However, anyone can get sick with COVID-19 and become seriously ill or die at any age.

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What's the difference between illness caused by 2019-nCoV, the flu or a cold?

- People with 2019-nCoV infection, the flu, or a cold typically develop respiratory symptoms such as fever, cough and runny nose. Even though many symptoms are alike, they are caused by different viruses. Because of their similarities, it can be difficult to identify the disease based on symptoms alone. That's why laboratory tests are required to confirm if someone has 2019-nCoV.

- WHO recommends that people who have cough, fever and difficulty breathing should seek medical care early. Patients should inform health care providers if they have travelled in the 14 days before they developed symptoms, or if they have been in close contact with someone with who has been sick with respiratory symptoms.

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Are there long-term effects of COVID-19?

- Some people who have had COVID-19, whether they have needed hospitalization or not, continue to experience symptoms, including fatigue, respiratory and neurological symptoms.

- Research is now ongoing on patients beyond the initial acute course of illness to understand the proportion of patients who have long term effects, how long they persist, and why they occur.

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COVID-19 Transmission

19

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COVID-19 most commonly spreads during close contact

- People who are physically near (within 6 feet) a person with COVID-19 or have direct contact with that person are at greatest risk of infection.
- When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce respiratory droplets. These droplets can range in size from larger droplets (some of which are visible) to smaller droplets. Small droplets can also form particles when they dry very quickly in the airstream.
- Infections occur mainly through exposure to respiratory droplets when a person is in close contact with someone who has COVID-19.
- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth.
- As the respiratory droplets travel further from the person with COVID-19, the concentration of these droplets decreases. Larger droplets fall out of the air due to gravity. Smaller droplets and particles spread apart in the air.
- With passing time, the amount of infectious virus in respiratory droplets also decreases.

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COVID-19 can sometimes be spread by airborne transmission

- Some infections can be spread by exposure to virus in small droplets and particles that can linger in the air for minutes to hours. These viruses may be able to infect people who are further than 6 feet away from the person who is infected or after that person has left the space.
- This kind of spread is referred to as airborne transmission and is an important way that infections like tuberculosis, measles, and chicken pox are spread.
- There is evidence that under certain conditions, people with COVID-19 seem to have infected others who were more than 6 feet away. These transmissions occurred within enclosed spaces that had inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising.
    - Under these circumstances, scientists believe that the amount of infectious smaller droplet and particles produced by the people with COVID-19 became concentrated enough to spread the virus to other people. The people who were infected were in the same space during the same time or shortly after the person with COVID-19 had left.
- Available data indicate that it is much more common for the virus that causes COVID-19 to spread through close contact with a person who has COVID-19 than through airborne transmission.

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COVID-19 spreads less commonly through contact with contaminated surfaces

- Respiratory droplets can also land on surfaces and objects. It is possible that a person could get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or eyes.
- Spread from touching surfaces is not thought to be a common way that COVID-19 spreads.

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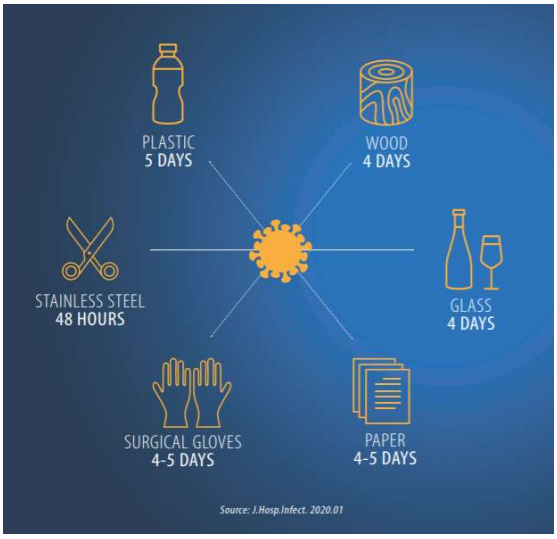
How long does the virus survive on surfaces?



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COVID-19 rarely spreads between people and animals

- It appears that the virus that causes COVID-19 can spread from people to animals in some situations. CDC is aware of a small number of pets worldwide, including cats and dogs, reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19..
- At this time, the risk of COVID-19 spreading from animals to people is considered to be low.
- People with suspected or confirmed COVID-19 should avoid contact with animals, including pets, livestock, and wildlife.
- The consumption of raw or undercooked animal products should be avoided. Raw meat, milk or animal organs should be handled with care, to avoid cross-contamination with uncooked foods, as per good food safety practices.

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Can children catch COVID-19?

- Yes. All age groups can catch COVID-19.
- While we are still learning about how COVID-19 affects people, so far, data suggests that children under the age of 18 years have few deaths compared to other age groups and usually mild disease. However, cases of critical illness have been reported. As with adults, pre-existing medical problems like high blood pressure, heart and lung problems, asthma, diabetes, obesity, cancer and neurological and developmental conditions are risk factors for severe disease and intensive care admission in children.

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Can COVID-19 be passed through breastfeeding?

- Transmission of active COVID-19 (virus that can cause infection) through breast milk and breastfeeding has not been detected to date. There is no reason to avoid or stop breastfeeding.

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Can COVID-19 be passed through breastfeeding?

- Women with confirmed or suspected COVID-19 can breastfeed if they wish to do so. They should:
  - Wash hands frequently with soap and water or use alcohol-based hand rub and especially before touching the baby;
  - Wear a medical mask during any contact with the baby, including while feeding;
  - Sneeze or cough into a tissue. Then dispose of it immediately and wash hands again;
  - Routinely clean and disinfect surfaces that mothers have touched.

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Can COVID-19 be passed through breastfeeding?

- Mothers with symptoms of COVID-19 are advised to wear a medical mask, but even if this is not possible, breastfeeding should be continued. Mothers should follow other infection prevention measures, such as washing hands, cleaning surfaces, sneezing or coughing into a tissue.

- Non-medical masks (e.g. home-made or cloth masks) have not been evaluated. At this time, it is not possible to make a recommendation for or against their use.

Reinfection with COVID-19

29

Reinfection with COVID-19

- In general, reinfection means a person was infected (got sick) once, recovered, and then later became infected again. Based on what we know from similar viruses, some reinfections are expected.
- Cases of reinfection with COVID-19 have been reported, but remain rare.

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Testing for COVID-19

31

What test should I get to see if I have COVID-19?

- In most situations, a molecular test is used to detect SARS-CoV-2 and confirm infection. Polymerase chain reaction (PCR) is the most commonly used molecular test. Samples are collected from the nose and/or throat with a swab. Molecular tests detect virus in the sample by amplifying viral genetic material to detectable levels. For this reason, a molecular test is used to confirm an active infection, usually within a few days of exposure and around the time that symptoms may begin.

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What about rapid tests?

- Rapid antigen tests (sometimes known as a rapid diagnostic test – RDT) detect viral proteins (known as antigens). Samples are collected from the nose and/or throat with a swab. These tests are cheaper than PCR and will offer results more quickly, although they are generally less accurate. These tests perform best when there is more virus circulating in the community and when sampled from an individual during the time they are most infectious.

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I want to find out if I had COVID-19 in the past, what test could I take?

- Antibody tests can tell us whether someone has had an infection in the past, even if they have not had symptoms. Also known as serological tests and usually done on a blood sample, these tests detect antibodies produced in response to an infection. In most people, antibodies start to develop after days to weeks and can indicate if a person has had past infection. Antibody tests cannot be used to diagnose COVID-19 in the early stages of infection or disease but can indicate whether or not someone has had the disease in the past.

Treatment for COVID-19

35

Are there treatments for COVID-19?

- Scientists around the world are working to find and develop treatments for COVID-19.
- Optimal supportive care includes oxygen for severely ill patients and those who are at risk for severe disease and more advanced respiratory support such as ventilation for patients who are critically ill.
- Dexamethasone is a corticosteroid that can help reduce the length of time on a ventilator and save lives of patients with severe and critical illness.
- Results from the WHO's Solidarity Trial indicated that remdesivir, hydroxychloroquine, lopinavir/ritonavir and interferon regimens appear to have little or no effect on 28-day mortality or the in-hospital course of COVID-19 among hospitalized patients.
- Hydroxychloroquine has not been shown to offer any benefit for treatment of COVID-19.
- WHO does not recommend self-medication with any medicines, including antibiotics, as a prevention or cure for COVID-19. WHO is coordinating efforts to develop treatments for COVID-19 and will continue to provide new information as it becomes available.

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Are antibiotics effective in preventing or treating COVID-19?

- Antibiotics do not work against viruses; they only work on bacterial infections. COVID-19 is caused by a virus, so antibiotics do not work. Antibiotics should not be used as a means of prevention or treatment of COVID-19.
- In hospitals, physicians will sometimes use antibiotics to prevent or treat secondary bacterial infections which can be a complication of COVID-19 in severely ill patients. They should only be used as directed by a physician to treat a bacterial infection.

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Protection against COVID-19

38

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Wearing Masks

- Masks are a key measure to suppress transmission and save lives.
- Masks should be used as part of a comprehensive 'Do it all!' approach including physical distancing, avoiding crowded, closed and close-contact settings, good ventilation, cleaning hands, covering sneezes and coughs, and more.
- Depending on the type, masks can be used for either protection of healthy persons or to prevent onward transmission.

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Who should wear what kind of mask?

- Medical masks are recommended for:
  - Health workers in clinical settings. See our guidance for more information on the use of personal protective equipment by health care workers.
  - Anyone who is feeling unwell, including people with mild symptoms, such as muscle aches, slight cough, sore throat or fatigue.
  - Anyone awaiting COVID-19 test results or who has tested positive.
  - People caring for someone who is a suspected or confirmed case of COVID-19 outside of health facilities.
  - People aged 60 or over.
  - People of any age with underlying health conditions, including chronic respiratory disease, cardiovascular disease, cancer, obesity, immunocompromised patients and diabetes mellitus.
- Non-medical, fabric masks can be used by the general public under the age of 60 and who do not have underlying health conditions.

40

	 Respirators (including N95)	 Surgical Masks	 Non-Medical Masks
Evaluation, Testing, and Certification	Respirators are evaluated, tested and certified by the National Institute for Occupational Health and Safety (NIOSH).	Surgical masks are classified by the American Society for Testing and Materials (ASTM).	Have not been evaluated or tested to recognized standards.
Purpose	Respirators protect from exposure to airborne particles, including viruses.	Surgical masks are a barrier to spreading droplets and spit.	Non-medical masks help limit the spread of droplets and spit when you sneeze or cough.
Fit (Face Seal)	Respirators are designed to seal tight to the face of the wearer.	Are not designed to seal tight against the face.	Are not designed to seal tight against the face.
Filtration	Respirator filters that collect at least 95% of the challenge aerosol are given a 95 rating.	Surgical masks do not effectively filter small particles from the air.	Fabrics are not the same as materials used in certified masks and do not necessarily filter viruses.
Use Limitations	Generally single use but repurposing may be appropriate in certain circumstances. Follow manufacturer's instructions.	Generally single use, but repurposing may be appropriate in certain circumstances. Follow manufacturer's instructions.	Can be difficult to breathe through fabric. Wash between uses.
Who Should Use and When	Health care workers and others when providing direct care to a COVID-19 patient.	Health care workers and others when providing direct care to a COVID-19 patient.	General public when consistent physical distancing is not possible, such as in stores and shopping areas, and on public transit.

41

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- **Make hand sanitizer part of your mask wearing routine:** https://youtu.be/GEIYCvcOHLw
- **How to properly fit your mask: https://youtu.be/YPd-XrDhzrQ**
- **Confused about when to wear a mask? https://youtu.be/vohiTyczR8w**
- **How to wear a medical mask?** https://youtu.be/adB8RW4I3o4
- **How to wear a fabric mask? https://youtu.be/ciUniZGD4tY**

42

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Should I wear a mask at school?

- Regarding wearing masks in schools and other public places, WHO advises that people always consult and abide by local authorities on recommended practices in their area. In countries or areas where there is intense community transmission of the virus and in settings where physical distancing cannot be achieved, WHO and UNICEF advise decision makers to apply the following criteria for use of masks in schools when developing national policies:
  - Children aged 5 years and under should not be required to wear masks.
  - For children between 6 and 11 years of age, the decision to use a mask will vary from place to place, and will depend on several factors, such as the intensity of transmission in the area where the child lives, local norms that influence social interactions, the child's capacity to comply with the appropriate use of masks and availability of appropriate adult supervision, and other factors.
  - Children and adolescents 12 years or older should follow the national mask guidelines for adults.

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Using Hand Sanitizers

- To prevent the spread of germs, including COVID-19, CDC recommends washing hands with soap and water whenever possible because it reduces the amount of many types of germs and chemicals on hands. But if soap and water are not readily available, using a hand sanitizer with at least 60% alcohol can help you avoid getting sick and spreading germs to others.
- Do not Choose hand sanitizers labeled as "alcohol-free."

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Wearing Gloves

- Wear gloves when cleaning and when caring for someone who is sick.
- Wearing gloves outside of these instances (for example, when using a shopping cart or using an ATM) will not necessarily protect you from getting COVID-19 and may still lead to the spread of germs.
- The best way to protect yourself from germs when running errands and after going out is to regularly wash your hands with soap and water for 20 seconds or use hand sanitizer with at least 60% alcohol.

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Social Distancing

- Social distancing, also called "physical distancing," means keeping a safe space between yourself and other people who are not from your household.
- To practice social or physical distancing, stay at least 6 feet (about 2 arm lengths) from other people who are not from your household in both indoor and outdoor spaces.
- Social distancing should be practiced in combination with other everyday preventive actions to reduce the spread of COVID-19, including wearing masks, avoiding touching your face with unwashed hands, and frequently washing your hands with soap and water for at least 20 seconds.

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What is the difference between isolation and quarantine?

- Both isolation and quarantine are methods of preventing the spread of COVID-19.
- **Quarantine** is used for anyone who is a contact of someone infected with the SARS-CoV-2 virus, which causes COVID-19, whether the infected person has symptoms or not. Quarantine means that you remain separated from others because you have been exposed to the virus and you may be infected and can take place in a designated facility or at home. For COVID-19, this means staying in the facility or at home for 14 days.
- **Isolation** is used for people with COVID-19 symptoms or who have tested positive for the virus. Being in isolation means being separated from other people, ideally in a medically facility where you can receive clinical care. If isolation in a medical facility is not possible and you are not in a high risk group of developing severe disease, isolation can take place at home. If you have symptoms, you should remain in isolation for at least 10 days plus an additional 3 days without symptoms. If you are infected and do not develop symptoms, you should remain in isolation for 10 days from the time you test positive.

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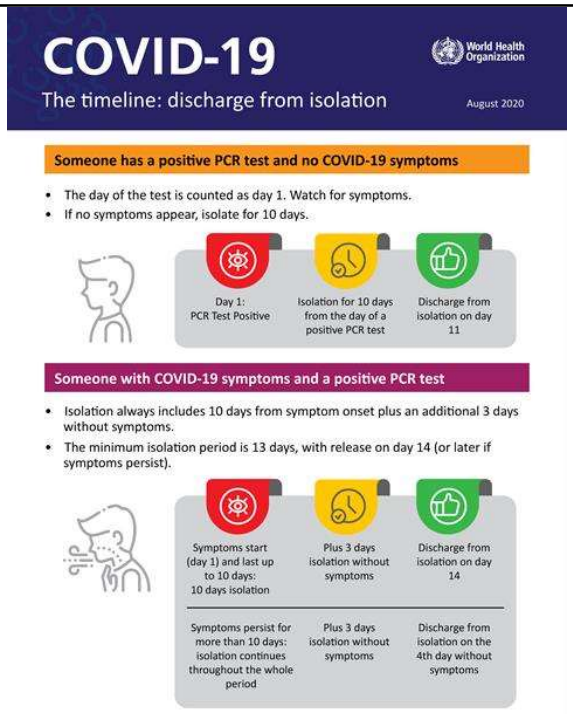

COVID-19 Vaccines

49

What types of COVID-19 vaccines are being developed? How would they work?

- Several different types of potential vaccines for COVID-19 are in development, including:
  - Inactivated or weakened virus vaccines, which use a form of the virus that has been inactivated or weakened so it doesn't cause disease, but still generates an immune response.
  - Protein-based vaccines, which use harmless fragments of proteins or protein shells that mimic the COVID-19 virus to safely generate an immune response.
  - Viral vector vaccines, which use a safe virus that cannot cause disease but serves as a platform to produce coronavirus proteins to generate an immune response.
  - RNA and DNA vaccines, a cutting-edge approach that uses genetically engineered RNA or DNA to generate a protein that itself safely prompts an immune response.

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COVID-19 vaccines

- The first mass vaccination programme started in early December 2020 and the number of vaccination doses administered is updated on a daily basis at this website(https://covid19.who.int/). At least 13 different vaccines (across 4 platforms) have been administered. Campaigns have started in 206 economies.
- 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 Serum 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).

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Will COVID-19 vaccines provide long-term protection?

- It's early to know the duration of protection of COVID-19 vaccines. Research is ongoing to answer this question. However, it's encouraging that available data suggest that most people who recover from COVID-19 develop an immune response that provides at least some period of protection against reinfection – although we're still learning how strong this protection is, and how long it lasts.

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What are the benefits of getting vaccinated?

- The COVID-19 vaccines produce protection against the disease, as a result of developing an immune response to the SARS-Cov-2 virus. Developing immunity through vaccination means there is a reduced risk of developing the illness and its consequences. This immunity helps you fight the virus if exposed. Getting vaccinated may also protect people around you, because if you are protected from getting infected and from disease, you are less likely to infect someone else. This is particularly important to protect people at increased risk for severe illness from COVID-19, such as healthcare providers, older or elderly adults, and people with other medical conditions.

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Is the natural immunity I get from being sick with COVID-19 better than the immunity I get from COVID-19 vaccination?

- NO. Getting a COVID-19 vaccination is a safer and more dependable way to build immunity to COVID-19 than getting sick with COVID-19.

- COVID-19 vaccination causes a more predictable immune response than infection with the virus that causes COVID-19. Getting a COVID-19 vaccine gives most people a high level of protection against COVID-19 and can provide added protection for people who already had COVID-19.

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Can a COVID-19 vaccine make me sick with COVID-19?

- NO. COVID-19 vaccines teach our immune systems how to recognize and fight the virus that causes COVID-19. Sometimes this process can cause symptoms, such as fever. These symptoms are normal and are signs that the body is building protection against the virus that causes COVID-19.
- Because none of the authorized COVID-19 vaccines contain the live virus that causes COVID-19, the vaccine cannot make you sick with COVID-19.

COVID-19

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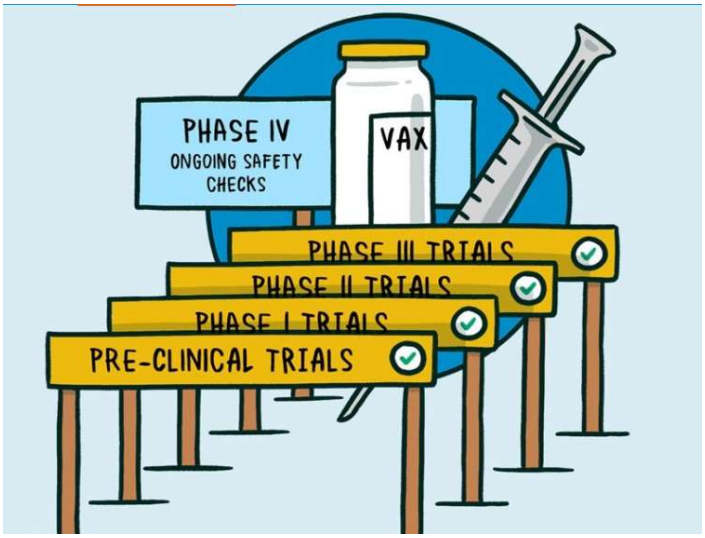
COVID-19 vaccines safety



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How do we know that COVID-19 vaccines are safe?

- There are strict precautions in place to help ensure the safety of all COVID-19 vaccines. Before receiving validation from WHO and national regulatory agencies for emergency use, COVID-19 vaccines must undergo rigorous testing in clinical trials to prove that they meet internationally agreed benchmarks for safety and efficacy.
- Unprecedented scientific collaborations have allowed COVID-19 vaccine research, development, and authorizations to be completed in record time – to meet the urgent need for these vaccines while maintaining high safety standards. As with all vaccines, WHO and regulatory authorities will continuously monitor the use of COVID-19 vaccines to identify and respond to any safety issues that might arise. Through that process, we ascertain that they remain safe for use around the world.

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Under what circumstances should a COVID-19 vaccine be recalled?

- In rare situations where a serious adverse reaction is suspected to be related to the vaccine itself, the vaccine may be temporarily suspended from use while the situation is assessed. Investigations will take place to determine what exactly caused the event, and corrective measures will be put in place. WHO works closely with vaccine manufacturers, health officials, researchers, and other partners to monitor any safety concerns and potential side effects.
- Vaccine recalls or withdrawals due to safety issues are rare. Recalls are generally associated with problems identified during the monitoring of batches of vaccines through quality control systems, stability studies and reports from the field, including cold chain issues where some vaccines have not been stored at the right conditions and so are no longer safe or effective. In this case, people who have received a vaccine from that batch may need to be vaccinated again to ensure they are protected. This is why vaccines are so closely monitored – to ensure that any issues with their production, storage or use can be rapidly identified and resolved.

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What are the side effects of COVID-19 vaccines?

- Like with any vaccine, some people will experience mild to moderate side effects after being vaccinated against COVID-19. This is a normal sign that the body is developing protection. Side effects to COVID-19 vaccines include a fever, tiredness, headache, muscle ache, chills, diarrhoea and pain or redness at the injection site. Not everyone will experience side effects. Most side effects go away within a few days on their own. You can manage any side effects with rest, plenty of non-alcoholic liquids and taking medication to manage pain and fever, if needed.
- If you are worried that the side effects that you are experiencing are unusual, if the pain in the arm where you got the injection gets worse after 24 hours or your side effects don't go away in a few days, contact your healthcare provider for advice.
- More serious or long-lasting side effects to COVID-19 vaccines are possible but extremely rare. If you experience difficulty breathing, chest pain, confusion, loss of speech or mobility after your vaccine, contact your healthcare provider immediately. Vaccines are continually monitored for as long as they are in use to detect and respond to rare adverse events.

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Does having side effects mean that the vaccine is working? What does having no side effects mean?

- The vaccine stimulates your immune system to protect you from the virus. This process can sometimes cause side effects like fever, chills or headache, but not everyone will experiences any side effect. The presence or magnitude of the reaction you may have vaccination does not predict or reflect your immune response to the vaccine.
- You do not have to have side effects in order to be protected.

COVID-19

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Is it safe to mix-and-match different COVID-19 vaccines?

- It is safe for you to receive two different COVID-19 vaccines for your first and second dose. This is sometimes called mixing and matching vaccines, or a heterologous vaccine schedule. WHO considers two doses of any WHO EUL COVID-19 vaccines to be a complete primary series. See the full list of COVID-19 vaccines with WHO EUL here.
- By mixing and matching vaccines, countries are able to maximise vaccine impact in the event of constrained or limited supply.
- People over 60 who have received two doses of Sinovac and Sinopharm can also be given a third dose to help boost their immunity, once a high level of coverage of the priority groups has been achieved. SAGE has stated that Pfizer or AstraZeneca can be used for the third dose if the original vaccine is not available.
- Further trials are underway to understand more about mixed doses, which will inform any future changes to WHO's recommendations.

COVID-19

Dr. Latefa Dardas

Are mRNA vaccines safe? If they're based on new technology, how can we be sure?

- The COVID-19 mRNA vaccine technology has been rigorously assessed for safety, and clinical trials have shown that mRNA vaccines produce an immune response that has high efficacy against disease. mRNA vaccine technology has been studied for several decades, including in the contexts of Zika, rabies, and influenza vaccines. mRNA vaccines are not live virus vaccines and do not interfere with human DNA.

COVID-19

Dr. Latefa Dardas

Do the COVID-19 Astra Zeneca and Johnson & Johnson/Janssen vaccines cause blood clots?

- Globally, COVID-19 vaccines such as AstraZeneca and Johnson &Johnson/Janssen have been used to protect millions of people. Data is available from both clinical trials and preliminary data from country surveillance programmes on their efficacy and safety. Some mild to moderate side effects such as fever, muscle and head aches, soreness around the injection site and tiredness are expected to affect some people after vaccination. These are a normal indications that the body is developing protection.

- There have been reports of very rare but serious cases of blood clots accompanied by low platelet counts (known as thrombosis with thrombocytopenia syndrome (TTS)) occurring 3 to 30 days after vaccination with COVID-19 non-replicant adenovirus vector-based vaccines (such as the AstraZeneca and Janssen vaccines).

COVID-19

Dr. Latefa Dardas

Do the COVID-19 Astra Zeneca and Johnson & Johnson/Janssen vaccines cause blood clots?

- With the AstraZeneca vaccine, as of 15 July 2021, the data shows that these symptoms occur in about four to six people out of every million vaccinated (this figure varies based on age, sex and geographical location)[2}. Younger adults appear to be at higher risk than older adults. More research is underway to understand more about how people may be differently affected.

- With the Janssen vaccine, as of the 7 May 2021, the US Food and Drug Administration and the Centers for Disease Control and Prevention had reviewed 28 reports of TTS out of a total of more than eight million people vaccinated[3]. It is possible that that there a causal link between the vaccine and these symptoms, but more data is needed.

COVID-19

Dr. Latefa Dardas

Safety of COVID-19 vaccines for children

- The Pfizer vaccine is safe for use in children aged 5 years and above. For children in this age group, WHO recommends a reduced dosage of 10 µg (0.2 ml). Both Pfizer and Moderna are safe for use in children aged 12 and above using a dose of 0.3 ml and 0.5 ml respectively. However, while the availability of COVID-19 vaccines is limited, WHO recommends that countries should vaccinate children only when high vaccine coverage with two doses has been achieved in higher priority-use groups, as identified in the WHO Prioritization Roadmap. However, children with existing health conditions should be prioritised for vaccination at the same time as other high risk groups.
- Vaccine trials to determine whether other COVID-19 vaccines are safe for use in children are ongoing, and WHO recommendations will be updated when the evidence supports a change in the policy.
- Practicing the protective behaviours is still the best way to keep everyone, including children, safe from COVID-19, whether or not you have been vaccinated.

COVID-19

Dr. Latefa Dardas

COVID-19 Vaccine Boosters Who can get them?

PRIMARY SERIES COVID-19 VACCINE

Pfizer-BioNTech

Who should get one booster:

Everyone 12 years and older

Who can get a second booster:

Adults 50 years and older

When to get your booster:

At least 5 months after completing your primary COVID-19 vaccination series

If eligible for a second booster, at least 4 months after your first booster

Which booster can you get:

- Adults 18 years and older should get an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna) for the first booster in most* situations
- The second booster must be an mRNA COVID-19 vaccine
- Teens 12–17 years old may only get a Pfizer-BioNTech COVID-19 vaccine booster

67

PRIMARY SERIES COVID-19 VACCINE

Moderna

Who should get one booster:

Adults 18 years and older

Who can get a second booster:

Adults 50 years and older

When to get your booster:

At least 5 months after completing your primary COVID-19 vaccination series

If eligible for a second booster, at least 4 months after your first booster

Which booster can you get:

For the first booster, an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna) is preferred in most* situations

The second booster must be an mRNA COVID-19 vaccine

68

PRIMARY SERIES COVID-19 VACCINE	Who should get a booster:	When to get your booster:	Which booster can you get:
Johnson & Johnson's Janssen*	Adults 18 years and older **Who can get a second booster:** Anyone who received a J&J/Janssen COVID-19 vaccine for both their primary dose and booster Adults 50 years and older who first received a J&J/Janssen COVID-19 vaccine, regardless of what type of booster they received	At least 2 months after receiving your J&J/Janssen COVID-19 vaccination If eligible for a second booster, at least 4 months after your first booster	For the first booster, an mRNA COVID-19 vaccine (Pfizer-BioNTech or Moderna) is preferred in most* situations The second booster must be an mRNA COVID-19 vaccine

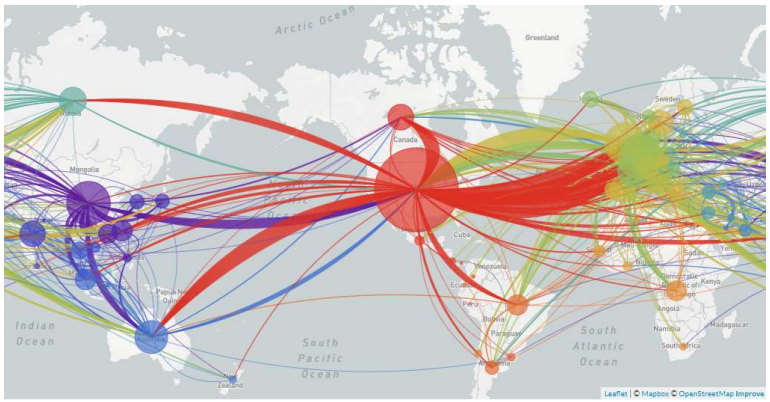
*Although mRNA vaccines are preferred for the first booster, J&J/Janssen COVID-19 vaccine may be considered in some situations.

69

COVID-19

Dr. Latefa Dardas

Coronavirus Evolution



70

COVID-19

Dr. Latefa Dardas

What does it mean to say a virus mutates or changes?

- When a virus replicates or makes copies of itself, it sometimes changes a little bit. These changes are called "mutations." A virus with one or several new mutations is referred to as a "variant" of the original virus.
- The more viruses circulate, the more they may change. These changes can occasionally result in a virus variant that is better adapted to its environment compared to the original virus. This process of changing and selection of successful variants is called "virus evolution."
- Some mutations can lead to changes in a virus's characteristics, such as altered transmission (for example, it may spread more easily) or severity (for example, it may cause more severe disease).
- Some viruses change quickly and others more slowly. SARS-CoV-2, the virus which causes COVID-19, tends to change more slowly than others such as HIV or influenza viruses. This could in part be explained by the virus's internal "proofreading mechanism" which can correct "mistakes" when it makes copies of itself. Scientists continue to study this mechanism to better understand how it works.

71

COVID-19

Dr. Latefa Dardas

What does it mean to say a virus mutates or changes?

- Multiple variants of the virus that causes COVID-19 are circulating globally:

1. The United Kingdom (UK) identified a variant called B.1.1.7 with a large number of mutations in the fall of 2020. This variant spreads more easily and quickly than other variants. In January 2021, experts in the UK reported that this variant may be associated with an increased risk of death compared to other variant viruses, but more studies are needed to confirm this finding. It has since been detected in many countries around the world.
2. In South Africa, another variant called B.1.351 emerged independently of B.1.1.7. Originally detected in early October 2020, B.1.351 shares some mutations with B.1.1.7.
3. In Brazil, a variant called P.1 emerged that was first identified in travelers from Brazil, who were tested during routine screening at an airport in Japan, in early January. This variant contains a set of additional mutations that may affect its ability to be recognized by antibodies.

72

COVID-19

Dr. Latefa Dardas

Should I be concerned about SARS-CoV-2 changing?

- It is normal for viruses to change, but it is still something scientists follow closely because there can be important implications. All viruses, including SARS-CoV-2, the virus that causes COVID-19, change over time. So far hundreds of variations of this virus have been identified worldwide. WHO and partners have been following them closely since January 2020.
- Most changes have little to no impact on the virus' properties. However, depending on where the changes are located in the virus's genetic material, they may affect the virus's properties, such as transmission (for example, it may spread more easily) or severity (for example, it may cause more severe disease).
- WHO and its international network of experts, are monitoring changes to the virus so that if significant mutations are identified, WHO can report any modifications to interventions needed by countries and individuals to prevent the spread of that variant. The current strategies and measures recommended by WHO continue to work against virus variants identified since the start of the pandemic.

73

COVID-19

Dr. Latefa Dardas

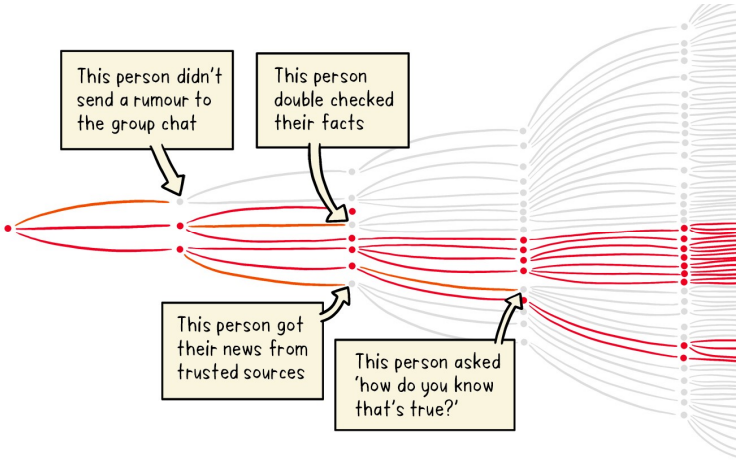
Know The Facts….

74

COVID-19

Dr. Latefa Dardas

Let's flatten the infodemic curve



75

COVID-19

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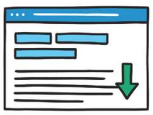
Top tips for navigating the infodemic

World Health Organization

1. Assess the source:

Who shared the information with you and where did they get it from? Even if it is friends or family, you still need to vet their source.



2. Go beyond headlines:

Headlines may be intentionally sensational or provocative.

3. Identify the author:

Search the author's name online to see if they are real or credible.

4. Check the date:

Is it up to date and relevant to current events? Has a headline, image or statistic been used out of context?

5. Examine the supporting evidence:

Credible stories back up their claims with facts.

6. Check your biases:

Think about whether your own biases could affect your judgment on what is or is not trustworthy.

7. Turn to fact-checkers:

Consult trusted fact-checking organizations, such as the International Fact-Checking Network and global news outlets focused on debunking misinformation.

76

COVID-19

Dr. Latefa Dardas

COVID-19 Mythbusters

77

COVID-19

Dr. Latefa Dardas

Micronutrients, such as vitamins D and C and zinc, are critical for a well-functioning immune system and play a vital role in promoting health and nutritional well-being.

There is currently no guidance on the use of micronutrient supplements as a treatment of COVID-19.

WHO is coordinating efforts to develop and evaluate medicines to treat COVID-19.

World Health Organization #Coronavirus #COVID19

FACT:
Vitamin and mineral supplements cannot cure COVID-19

22 September 2020

78

COVID-19

Dr. Latefa Dardas

Studies of hydroxychloroquine among seriously ill hospitalized patients were stopped in the WHO Solidarity Trial because data didn't show that it reduces mortality of hospitalised COVID-19 patients.
WHO is coordinating efforts to develop and evaluate medicines to treat COVID-19.

World Health Organization #Coronavirus #COVID19

FACT:
Hydroxychloroquine does NOT reduce mortality of hospitalised COVID-19 patients

16 November 2020

79

COVID-19

Dr. Latefa Dardas

Corticosteroids (dexamethasone and hydrocortisone) are recommended for severe and critically ill COVID-19 patients under medical supervision.

A review of 8 randomized studies with more than 7,000 patients found that the systemic treatment (intravenous or oral) reduced mortality for this group.

In contrast, WHO does NOT advise the use of corticosteroids for patients with non-severe COVID-19, because they may increase the risk of complications or adverse effects.

World Health Organization #Coronavirus #COVID19

FACT:
Corticosteroids (dexamethasone and hydrocortisone) are recommended for severe and critically ill COVID-19 patients.

5 November 2020

80

COVID-19

Dr. Latefa Dardas

The COVID-19 virus does not transmit through water while swimming.
However, the virus spreads between people when someone has close contact with an infected person.

WHAT YOU CAN DO:
Avoid crowds and maintain at least a 1-metre distance from others, even when you are swimming or at swimming areas.
Wear a mask when you're not in the water and you can't stay distant. Clean your hands frequently, cover a cough or sneeze with a tissue or bent elbow, and stay home if you're unwell.

World Health Organization #Coronavirus #COVID19

FACT:
Water or swimming does not transmit the COVID-19 virus

16 October 2020

81

COVID-19

Dr. Latefa Dardas

The prolonged use of medical masks can be uncomfortable. However, it does not lead to CO2 intoxication nor oxygen deficiency.
While wearing a medical mask, make sure it fits properly and that it is tight enough to allow you to breathe normally. Do not re-use a disposable mask and always change it as soon as it gets damp.

* Medical masks (also known as surgical masks) are flat or pleated; they are affixed to the head with straps or have ear loops.

World Health Organization #Coronavirus #COVID19

FACT:
The prolonged use of medical masks* when properly worn, DOES NOT cause CO2 intoxication nor oxygen deficiency

5 June 2020

82

COVID-19

Dr. Latefa Dardas

Most people who get COVID-19 have mild or moderate symptoms and can recover thanks to supportive care.
If you have a cough, fever and difficulty breathing seek medical care early – call your health facility by telephone first.
If you have fever and live in an area with malaria or dengue seek medical care immediately.

World Health Organization #Coronavirus #COVID19

FACT:
Most people who get COVID-19 recover from it

27 May 2020

83

COVID-19

Dr. Latefa Dardas

Thermal scanners are effective in detecting people who have a fever (i.e. have a higher than normal body temperature). They cannot detect people who are infected with COVID-19.

There are many causes of fever. Call your healthcare provider if you need assistance or seek immediate medical care if you have fever and live in an area with malaria or dengue.

World Health Organization #COVID19 #Coronavirus

FACT:
Thermal scanners CANNOT detect COVID-19

27 May 2020

84

COVID-19

Dr. Latefa Dardas

Do not under any circumstance spray or introduce bleach or any other disinfectant into your body. These substances can be poisonous if ingested and cause irritation and damage to your skin and eyes.

Bleach and disinfectant should be used carefully to disinfect surfaces only.

Remember to keep chlorine (bleach) and other disinfectants out of the reach of children.

World Health Organization #COVID19 #coronavirus

FACT:
Spraying or introducing bleach or another disinfectant into your body WILL NOT protect you against COVID-19 and can be dangerous

27 April 2020

85

COVID-19

Dr. Latefa Dardas

You can catch COVID-19, no matter how sunny or hot the weather is.
Countries with hot weather have reported cases of COVID-19.
To protect yourself, make sure you clean your hands frequently and thoroughly and avoid touching your eyes, mouth and nose.

World Health Organization #Coronavirus #COVID19

FACT:
Exposing yourself to the sun or to temperatures higher than 25C degrees DOES NOT prevent nor cure COVID-19

27 April 2020

86

COVID-19

Dr. Latefa Dardas

The most common symptoms of COVID-19 are dry cough, tiredness and fever. Some people may develop more severe forms of the disease, such as pneumonia. The best way to confirm if you have the virus producing COVID-19 disease is with a laboratory test. You cannot confirm it with this breathing exercise, which can even be dangerous.

World Health Organization #Coronavirus #COVID19

FACT:

Being able to hold your breath for 10 seconds or more without coughing or feeling discomfort DOES NOT mean you are free from the coronavirus disease (COVID-19) or any other lung disease.

87

COVID-19

Dr. Latefa Dardas

The COVID-19 virus can be transmitted in any climate, including areas with hot and humid weather.

The best way to protect yourself against COVID-19 is by maintaining physical distance of at least 1 metre from others and frequently cleaning your hands. By doing this you eliminate viruses that may be on your hands and avoid infection that could occur by then touching your eyes, mouth, and nose.

World Health Organization #Coronavirus #COVID19

FACT:
COVID-19 can be transmitted in areas with hot and humid climates

27 April 2020

88

COVID-19

Dr. Latefa Dardas

There is no reason to believe that cold weather can kill the new coronavirus or other diseases.

The normal human body temperature remains around 36.5°C and 37°C, regardless of the external temperature or weather.

The most effective way to protect yourself against the new coronavirus is by frequently cleaning your hands with alcohol-based hand rub or washing them with soap and water.

World Health Organization #Coronavirus #COVID19

FACT:
Cold weather and snow CANNOT kill the new coronavirus

89

COVID-19

Dr. Latefa Dardas

Taking a hot bath will not prevent you from catching COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Actually, taking a hot bath with extremely hot water can be harmful, as it can burn you.

The best way to protect yourself against COVID-19 is by frequently cleaning your hands. By doing this you eliminate viruses that may be on your hands and avoid infection that could occur by then touching your eyes, mouth, and nose.

World Health Organization #Coronavirus #COVID19

FACT:
Taking a hot bath does not prevent the new coronavirus disease

90

COVID-19

Dr. Latefa Dardas

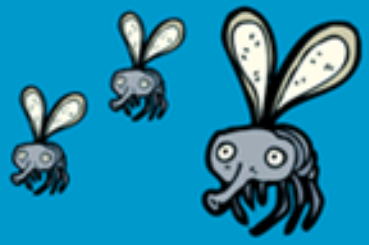
To date there has been no information nor evidence to suggest that the new coronavirus could be transmitted by mosquitoes.

The new coronavirus is a respiratory virus which spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose.

To protect yourself, clean your hands frequently with an alcohol-based hand rub or wash them with soap and water. Also, avoid close contact with anyone who is coughing and sneezing.

World Health Organization #Coronavirus #COVID19

FACT:
The new coronavirus CANNOT be transmitted through mosquito bites



91

COVID-19

Dr. Latefa Dardas

No. Hand dryers are not effective in killing the 2019-nCoV.

To protect yourself against the new coronavirus, you should frequently clean your hands with an alcohol-based hand rub or wash them with soap and water. Once your hands are cleaned, you should dry them thoroughly by using paper towels or a warm air dryer.

World Health Organization #2019nCoV

Are hand dryers effective in killing the new coronavirus?

92

COVID-19

Dr. Latefa Dardas

Can regularly rinsing your nose with saline help prevent infection with the new coronavirus?

No. There is no evidence that regularly rinsing the nose with saline has protected people from infection with the new coronavirus.

There is some limited evidence that regularly rinsing the nose with saline can help people recover more quickly from the common cold. However, regularly rinsing the nose has not been shown to prevent respiratory infections.

World Health Organization

#2019nCoV

93

COVID-19

Dr. Latefa Dardas

Can eating garlic help prevent infection with the new coronavirus?

Garlic is a healthy food that may have some antimicrobial properties. However, there is no evidence from the current outbreak that eating garlic has protected people from the new coronavirus (2019-nCoV)

World Health Organization

#2019nCoV

94

COVID-19

Dr. Latefa Dardas

Can people wear masks while exercising?

16 June 2020

People should NOT wear masks when exercising as masks may reduce the ability to breathe comfortably.

Sweat can make the mask become wet more quickly which makes it difficult to breathe and promotes the growth of microorganisms.

The important preventive measure during exercise is to maintain physical distance of at least one meter from others.

#Coronavirus #COVID19 World Health Organization

95

COVID-19

Dr. Latefa Dardas

Can shoes spread the COVID-19 virus?

11 June 2020

The likelihood of COVID-19 being spread on shoes and infecting individuals is very low.

As a precautionary measure, particularly in homes where infants and small children crawl or play on floors, consider leaving your shoes at the entrance of your home. This will help prevent contact with dirt or any waste that could be carried on the soles of shoes.

#Coronavirus #COVID19 World Health Organization

96

COVID-19

Dr. Latefa Dardas

COVID-19 Global Prevalence

97

COVID-19

Dr. Latefa Dardas

COVID-19 Cases Worldwide

486 761 597
Confirmed cases
Last update: 1 April 2022, 05:59 pm EEST

6 142 735
Confirmed deaths
Last update: 1 April 2022, 05:59 pm EEST

11 054 362 790
Vaccine doses administered
Last update: 27 March 2022

98

COVID-19 in Jordan

(Latest Updates available as of 2 April 2022)

- In **Jordan**, from **3 January 2020** to **4:59pm CEST, 1 April 2022**, there have been **1,692,485 confirmed cases** of COVID-19 with **14,031 deaths**, reported to WHO. As of **9 March 2022**, a total of **9,727,982 vaccine doses** have been administered.

COVID-19

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99

100