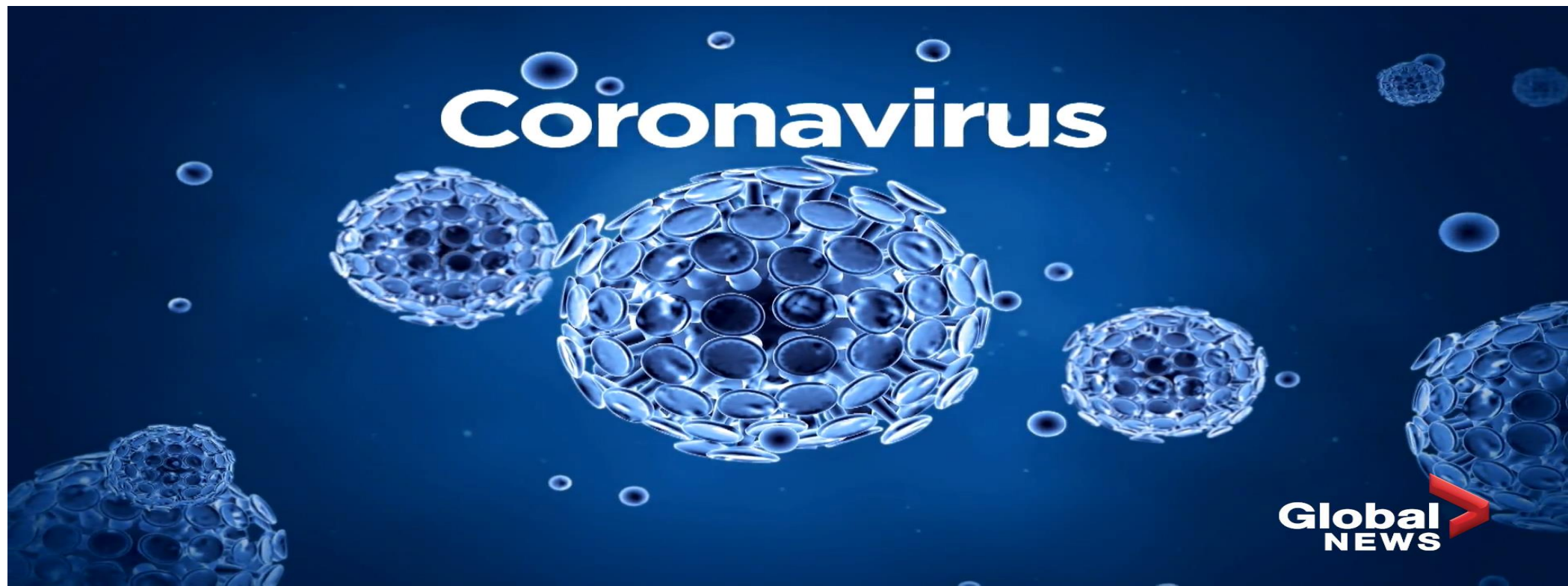




Created by: Amjad Aliana





Corona novel virus 2019

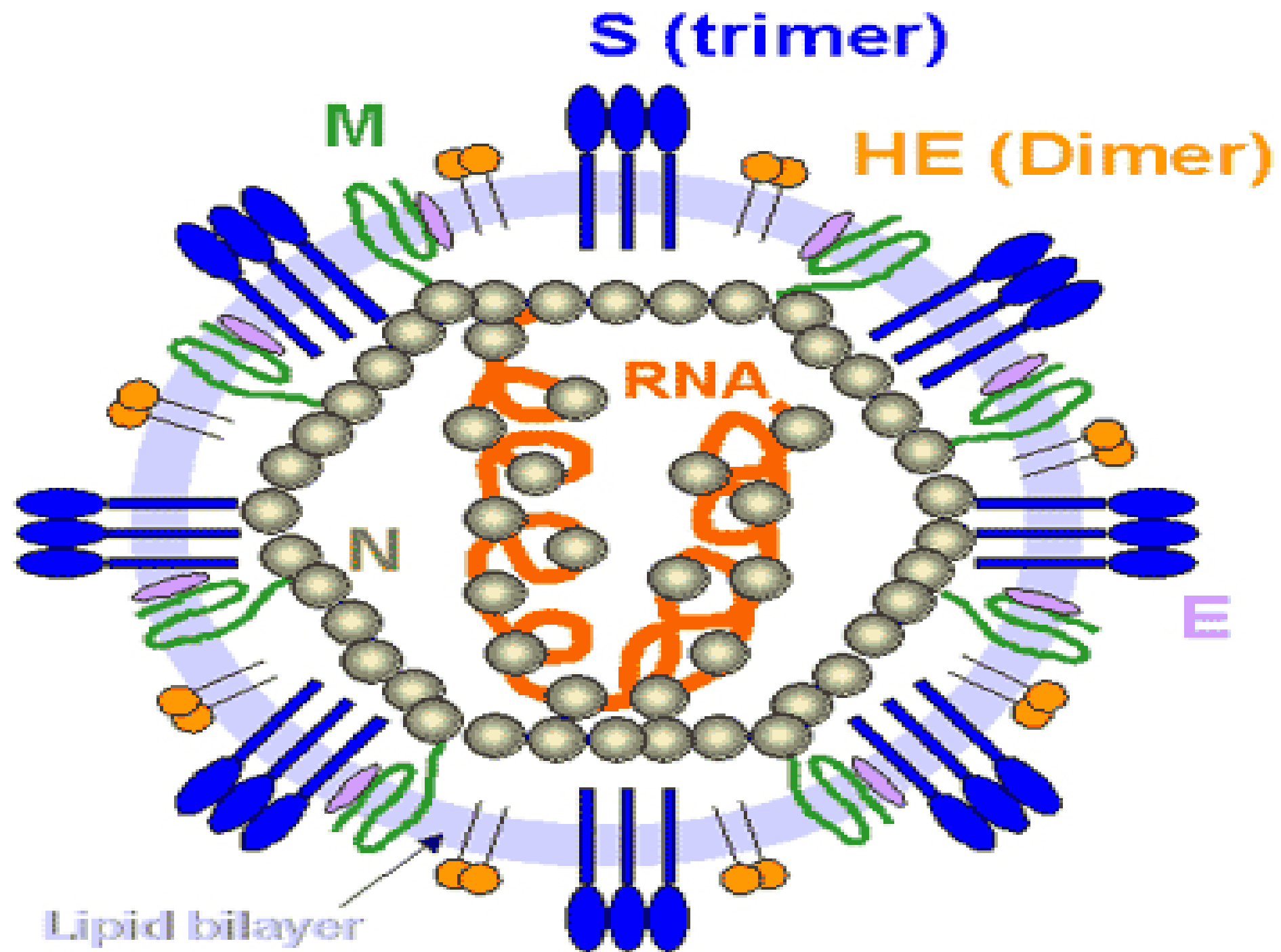
Dr reza ebadi

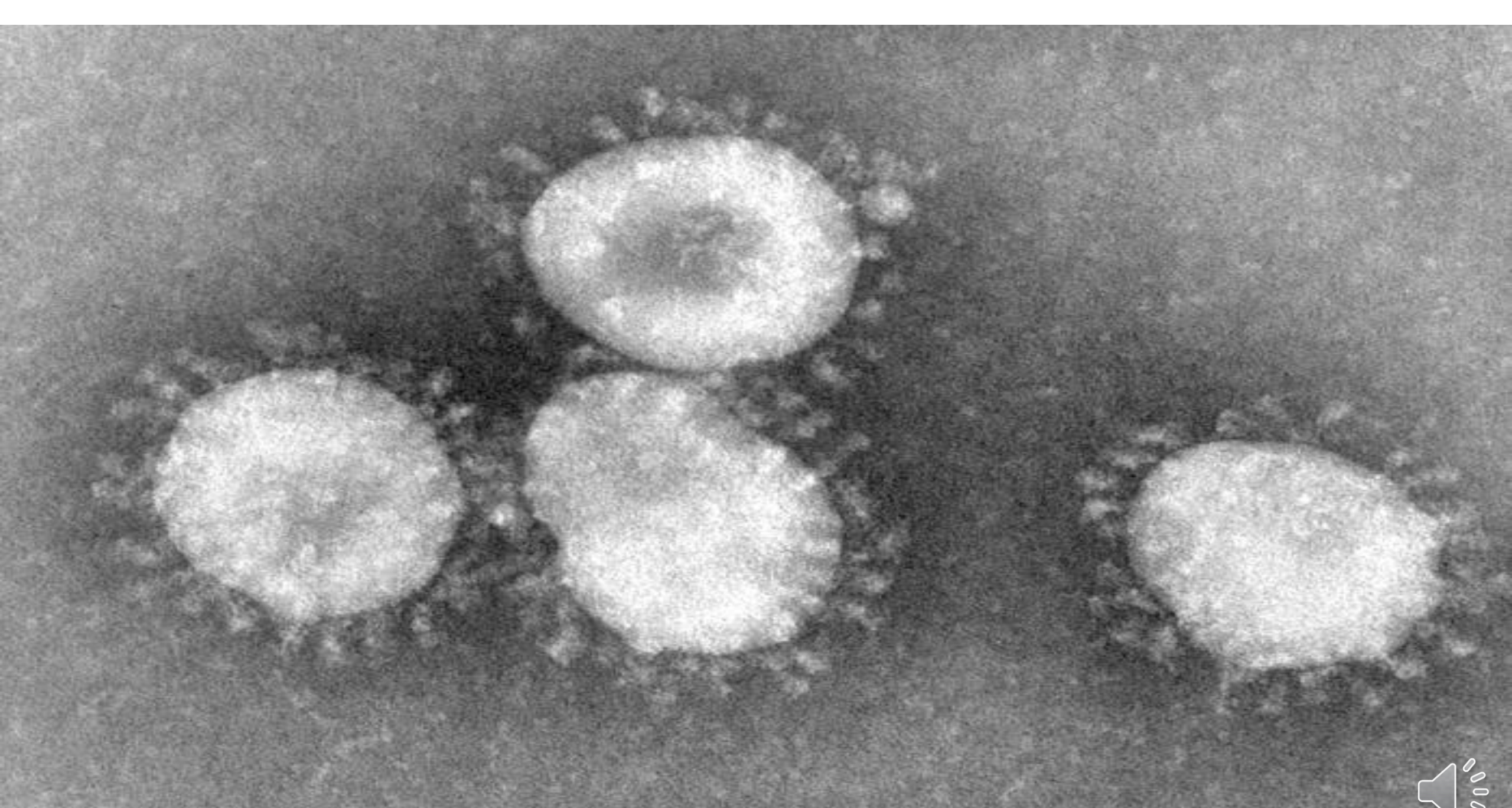
Iran Chamber of Commerce

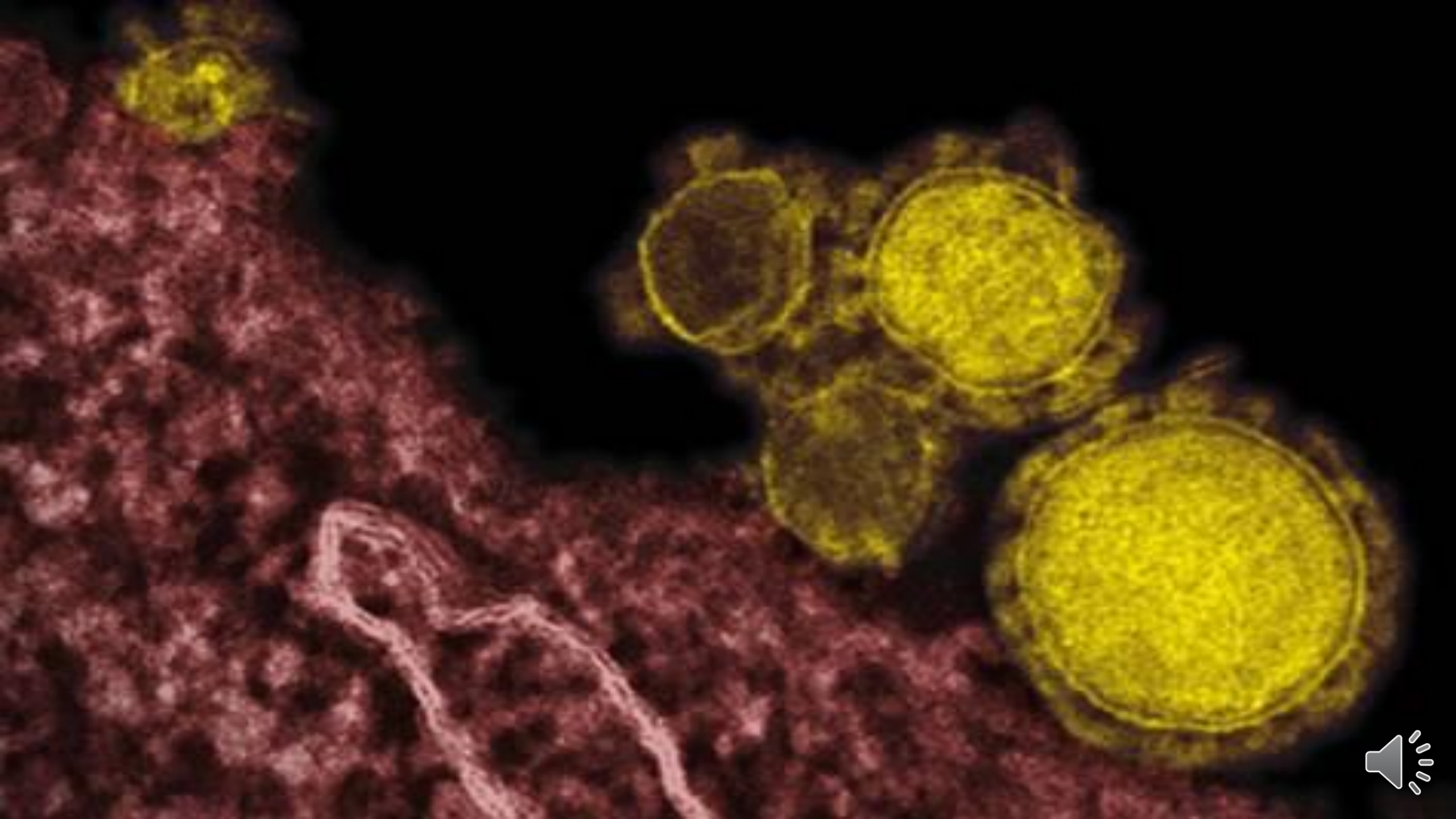


- Coronaviruses are enveloped **RNA viruses** from the *Coronaviridae* family
- **Coronaviruses**, which are about **100nm in diameter**, **are the largest positive strand RNA viruses**









کوروئناویروس ها عمدتاً در حیوانات (و
در معدودی از موارد نیز در انسان) می
توانند ایجاد بیماری نمایند

امکان جهش و کسب توانایی های جدید
دارند و در حیوانات باعث بروز طیف
وسیعتری از علائم می گردند



Listing of human coronaviruses

- Human coronavirus 229E
 - Human coronavirus OC43
 - SARS-CoV
 - Human Coronavirus NL63 (HCoV-NL63, New Haven coronavirus)
 - Human coronavirus HKU1
 - Middle East respiratory syndrome coronavirus (MERS-CoV), previously known as Novel coronavirus 2012 and HCoV-EMC.
-
- AND N-CORONAVIRUS 2019



تا کنون ۷ گونه کوروناویروس شناخته شده اند که امکان
بیمارizایی در انسان دارند

از این میان ۴ گونه ویروس بیماری خفیف ایجاد کرده
و ۳ گونه توانایی ایجاد بیماری شدیدتر و کشنده دارند.

ویروس NOVEL CORONAVIRUS - MERS - SARS



آبفشان طبیعی در نوادای امریکا



human Coronaviruses

are common viruses that most people get some time in their life

The human coronaviruses mainly infect the upper **respiratory** and **gastrointestinal** tract.



HUMAN CORONAVIRUS

LOW PATHOGEN

- They often result in **upper respiratory tract infections** (simple colds) in humans, causing mild illnesses usually of short lasting nature with a rhinitis, cough, sore throat, as well as fever.

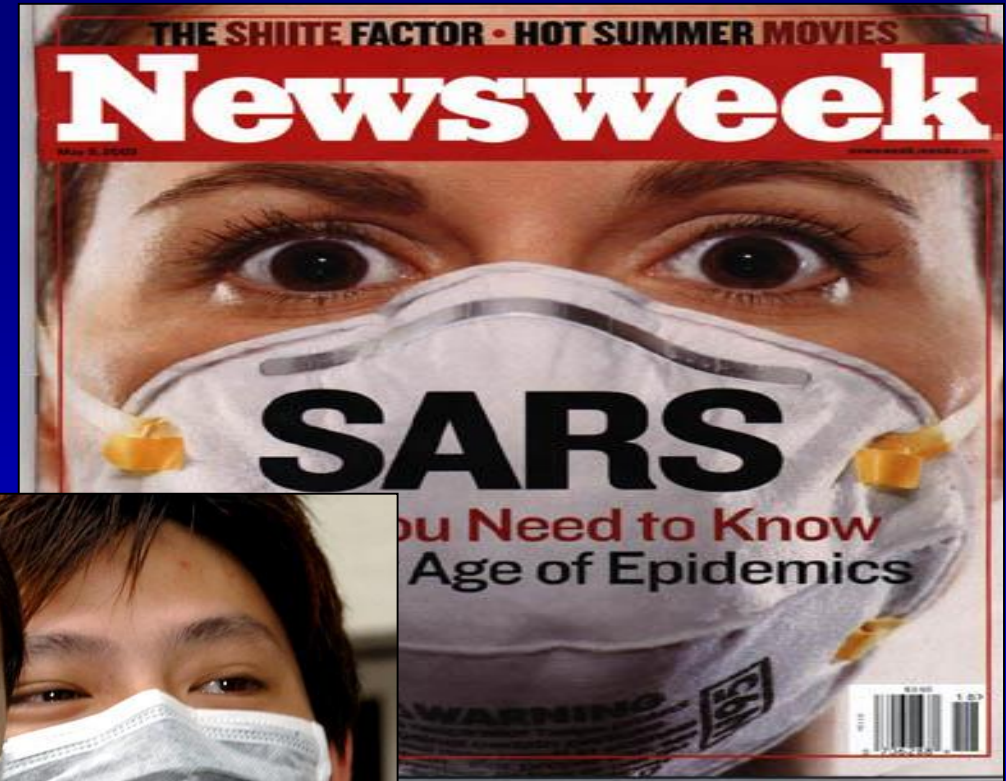


- Occasionally,
- the viruses are able to cause more significant lower respiratory tract infections in human with pneumonia; this is more likely in immunocompromised individuals, people with cardiopulmonary illnesses, as well as the elderly and young children.



Only very rarely the
humans viruses cause
severe disease, like severe
acute respiratory
syndrome

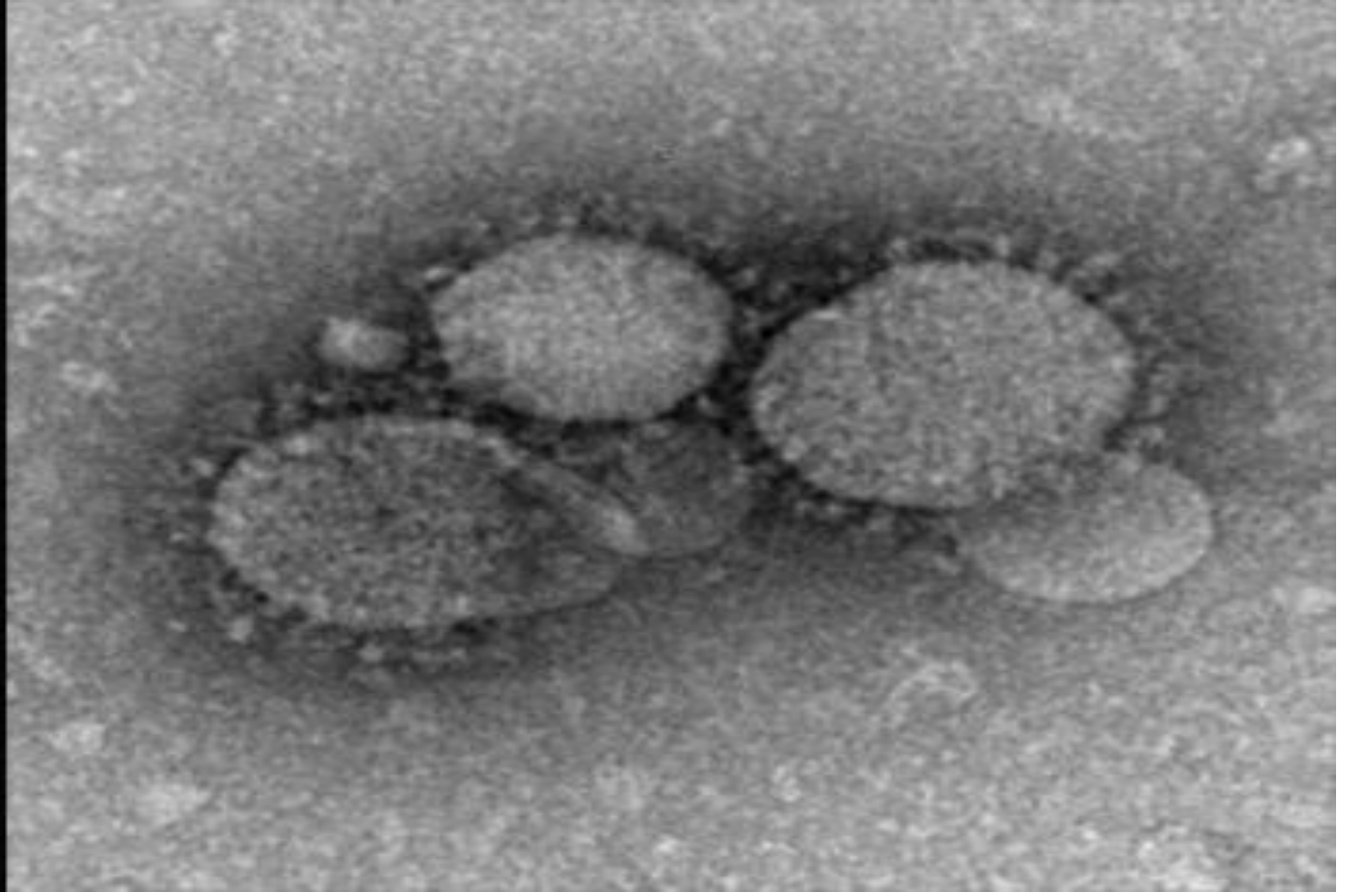




- is a viral respiratory disease of zoonotic origin caused by the SARS coronavirus (SARS-CoV) TRANSMITED FROM CAT TO HUMAN
- Between November 2002 and July 2003, an outbreak of SARS in Southern China caused an eventual 8,273 cases and 775 deaths reported in multiple countries with the majority of cases in Hong Kong (9.6% fatality rate)



MERS



Middle East Respiratory Syndrome (MERS)



background

Middle East respiratory syndrome (MERS) is a viral respiratory disease caused that was first identified in Saudi Arabia in 2012.



Source of the virus

- MERS-CoV is a zoonotic virus that is transmitted from animals to humans.
- it is believed that it originated in bats and was transmitted to camels sometime in the distant past. And from camels to human



background

- Approximately 36% of reported patients with MERS have died.



background

- The virus does not seem to pass easily from person to person unless there is close contact, such as occurs when providing unprotected care to a patient



- Several known coronaviruses are circulating in animals that have not yet infected humans.



دریاچه صورتی غرب استرالیا



- Corona virus
novel 2019



Corona virus novel 2019 is zoonosis?

The animal source of the 2019-nCoV has not yet been identified

This does not mean you can catch 2019-nCoV from any animal or from your pet

It's likely that an animal source from a live animal market in China was responsible for some of the first reported human infections.



SYMPTOMS AND signs of infection

- **Mild diseases**

- Common signs of infection include respiratory symptoms, fever,, a runny nose, sore throat, cough,

- **Moderate disease**

- shortness of breath and breathing difficulties.

- **severe cases**, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death.

- Older people, and people with pre-existing medical conditions (such as, diabetes and heart disease) appear to be more vulnerable to becoming severely ill with the virus.

- MORTALITY RATE:

- %3

- MERS %36

- SARS %10

Transmission :

- person to person, usually after close contact with an infected patient,
 - for example, in a household workplace, or health care centre
- through respiratory droplets generated BY
- coughs or sneezes, or through droplets of saliva or discharge from the nose.
- THEN It is important that everyone practice good respiratory hygiene.

Transmission

- . When people sneeze or cough, they may spray big droplets but the droplets do not stay suspended in the air for long. They fall.
- Health care procedures like intubation can spray small droplets into the air. Bigger droplets fall quickly. Smaller ones fall less quickly.

Transmission

- Contact the surrounding surface

Who can catch this virus?

- People living or travelling in an area where the 2019-nCoV virus is circulating may be at risk of infection. At present, 2019-nCoV is circulating in China where the vast majority of people infected have been reported.

Who can catch this virus?

- Those infected from other countries are among people who have recently traveled from China or who have been living or working closely with those travellers, such as family members, co-workers or medical professionals caring for a patient before they knew the patient was infected with 2019-nCoV.

Who can catch this virus?

- Health workers caring for persons who are sick with 2019-nCoV are at higher risk and must protect themselves with appropriate infection prevention and control procedures

Who can catch this virus?

- Everybody in contact with patient and the surrounding surface

SITUATION IN NUMBERS

- Globally

79 331 confirmed (715 new)

- China

77 262 confirmed (415 new)

2595 deaths (150 new)

- Outside of China

2069 confirmed (300 new)

- 29 countries (1 new)

23 deaths (6 new)

- Republic of Korea 763 (161) 13 (0) 4 (0) 605 (129) 141 (32) 7 (2)
- Japan 144 (12) 28 (0) 5 (0) 104 (10) 7 (2) 1 (0)
- Singapore 89 (0) 24 (0) 0 (0) 65 (0) 0 (0) 0 (0)
- Australia 22 (0) 12 (0) 7 (0) 3 (0) 0 (0) 0 (0)
- Malaysia 22 (0) 18 (0) 2 (0) 2 (0) 0 (0) 0 (0)
- Viet Nam 16 (0) 8 (0) 0 (0) 8 (0) 0 (0) 0 (0)
- Philippines 3 (0) 3 (0) 0 (0) 0 (0) 0 (0) 1 (0)
- Cambodia 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0 (0)

- Thailand 35 (0) 23 (0) 0 (0) 6 (0) 6 (0) 0 (0)
- India 3 (0) 3 (0) 0 (0) 0 (0) 0 (0) 0 (0)
- Nepal 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0 (0)
- Sri Lanka 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0 (0)

- United States of America 35 (0) 14 (0) 18 (0) 2 (0) 1 (0) 0 (0)
- Canada 9 (0) 7 (0) 1 (0) 1 (0) 0 (0) 0 (0)

- Italy 124 (48) 3 (0) 0 (0) 10 (0) 111 (48) 2 (0)
- Germany 16 (0) 2 (0) 0 (0) 14 (0) 0 (0) 0 (0)
- France 12 (0) 5 (0) 0 (0) 7 (0) 0 (0) 1 (0)
- The United Kingdom 9 (0) 2 (0) 6 (0) 1 (0) 0 (0) 0 (0)
- Russian Federation 2 (0) 2 (0) 0 (0) 0 (0) 0 (0) 0 (0)
- Spain 2 (0) 0 (0) 2 (0) 0 (0) 0 (0) 0 (0)
- Belgium 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0 (0)
- Finland 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0 (0)
- Israel 1 (0) 0 (0) 1 (0) 0 (0) 0 (0) 0 (0)
- Sweden 1 (0) 1 (0) 0 (0) 0 (0) 0 (0) 0

- Iran (Islamic Republic of) 43 (15) 0 (0) 0 (0) 28 (0) 15 (15) 8 (3)
- United Arab Emirates 13 (0) 6 (0) 2 (0) 5 (0) 0 (0) 0 (0)
- Kuwait 3 (3) 0 (0) 3 (3) 0 (0) 0 (0) 0 (0)
- Egypt 1 (0) 0 (0) 0 (0) 1 (0) 0 (0) 0 (0)
- Lebanon 1 (0) 0 (0) 1 (0) 0 (0) 0 (0) 0 (0)

How long time stay outside?

- It is still not known how long the 2019-nCoV virus survives on surfaces, although preliminary information suggests the virus may survive a few hours. Simple disinfectants can kill the virus making it no longer possible to infect people.

when infected patients may spread the virus to others

- . According to recent reports, it may be possible that people infected with 2019-nCoV may be infectious before showing significant symptoms. However, based on currently available data, the people who have symptoms are causing the majority of virus spread.

incubation period

- The incubation period is the time between infection and the onset of clinical symptoms of disease.
- Current estimates of the incubation period range from **1-12.5 days** with median estimates **of 5-6 days**.
- **These estimates will be refined as more data become available.**
- Based on information from other coronavirus diseases, such as MERS and SARS, **the incubation period of 2019-nCoV could be up to 14 days**. WHO recommends that the follow-up of contacts of confirmed cases is 14 days.







Treatment

- to date, there is no specific medicine recommended to prevent or treat the novel coronavirus.
 - However, those infected with 2019-nCoV should receive appropriate care to relieve and treat symptoms, and those with severe illness should receive optimized supportive care.
- Some specific treatments are under investigation and will be tested through clinical trials. WHO is helping to coordinate efforts to develop medicines to treat nCoV with a range of partners.

No recommended

- The following measures are not specifically recommended as 2019-nCoV remedies as they are not effective to protect yourself and can be even harmful:
- Taking vitamin C
- Smoking
- Drinking tradition herbal teas
- Wearing multiple masks to maximize protection
- Taking self-medication such as antibiotics

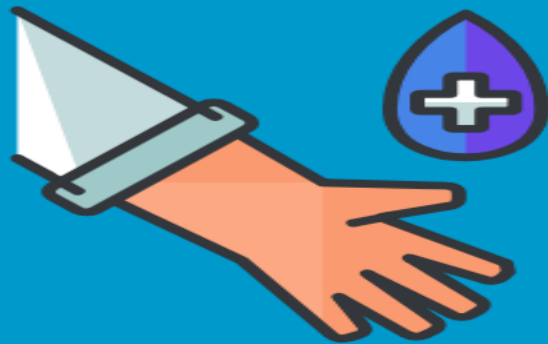
Prevention

Wash your hands

Wash your hands with soap and running water when **hands are visibly dirty**



If your **hands are not visibly dirty**, frequently clean them by using alcohol-based hand rub or soap and water



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Protect yourself and others from getting sick

Wash your hands



- after coughing or sneezing
- when caring for the sick
- before, during and after you prepare food
- before eating
- after toilet use
- when hands are visibly dirty
- after handling animals or animal waste

Protect others from getting sick

When coughing and sneezing
cover mouth and nose with
flexed elbow or tissue



Throw tissue into closed bin
immediately after use

Clean hands with alcohol-based
hand rub or soap and water
after coughing or sneezing and
when caring for the sick



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Protect others from getting sick



Avoid close contact when you are experiencing cough and fever

Avoid spitting in public



If you have fever, cough and difficulty breathing **seek medical care early** and share previous travel history with your health care provider



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Prevention:

- Maintain social distancing – maintain at least 1 metre (3 feet) distance between yourself and other people, particularly those who are coughing, sneezing and have a fever

Prevention:

- improve airflow in living space by opening windows as much as possible

Practise food safety

Use different **chopping boards and knives** for raw meat and cooked foods



Wash your hands between handling raw and cooked food.



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Practise food safety

Sick animals and
animals that
have died of
diseases **should
not be eaten**



Practise food safety

Even in **areas experiencing outbreaks**, meat products can be safely consumed if these items are **cooked thoroughly and properly handled** during food preparation.



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MASK PROTECTION



WHEN TO USE A MASK

For healthy people wear a mask only if you are taking care of a person with suspected 2019-nCoV infection

Wear a mask, if you are coughing or sneezing

Masks are effective only when used in combination with frequent hand-cleaning with alcohol-based hand rub or soap and water

If you wear a mask then you must know how to use it and dispose of it properly



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HOW TO PUT ON, USE, TAKE OFF AND DISPOSE OF A MASK

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



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HOW TO PUT ON, USE, TAKE OFF AND DISPOSE OF A MASK

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



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HOW TO PUT ON, USE, TAKE OFF AND DISPOSE OF A MASK

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



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HOW TO PUT ON, USE, TAKE OFF AND DISPOSE OF A MASK

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



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Yes, it is safe. People receiving packages from China are not at risk of contracting the new coronavirus.

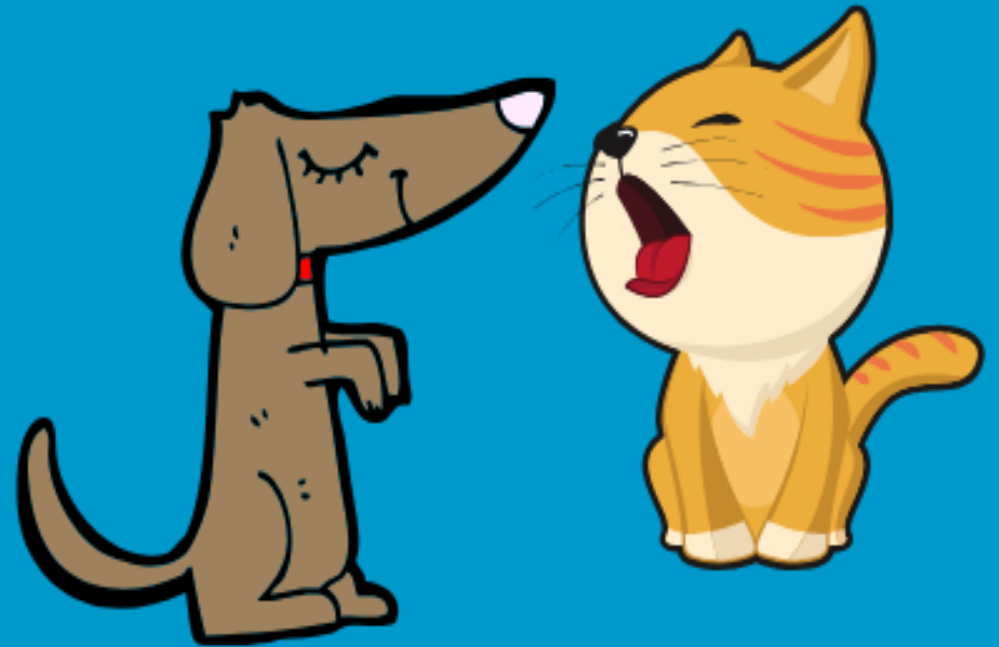
From previous analysis, we know coronaviruses do not survive long on objects, such as letters or packages.

Is it safe to receive a letter or a package from China?



Can pets at home spread the new coronavirus (2019-nCoV)?

At present, there is **no evidence** that **companion animals / pets** such as dogs or cats can be infected with the new coronavirus. However, it is always a good idea to **wash your hands with soap and water** after contact **with pets**. This protects you against various common bacteria such as E. coli and Salmonella that can pass between pets and humans.



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

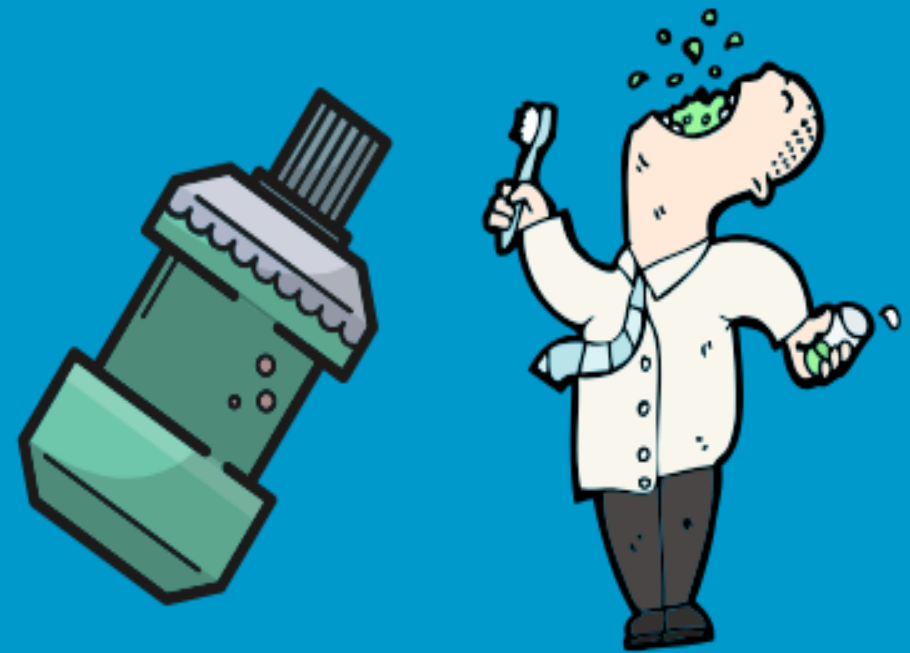
There is some limited evidence that regularly rinsing the nose with saline can help people recover more quickly from the common cold. However, regularly rinsing the nose has not been shown to prevent respiratory infections.

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



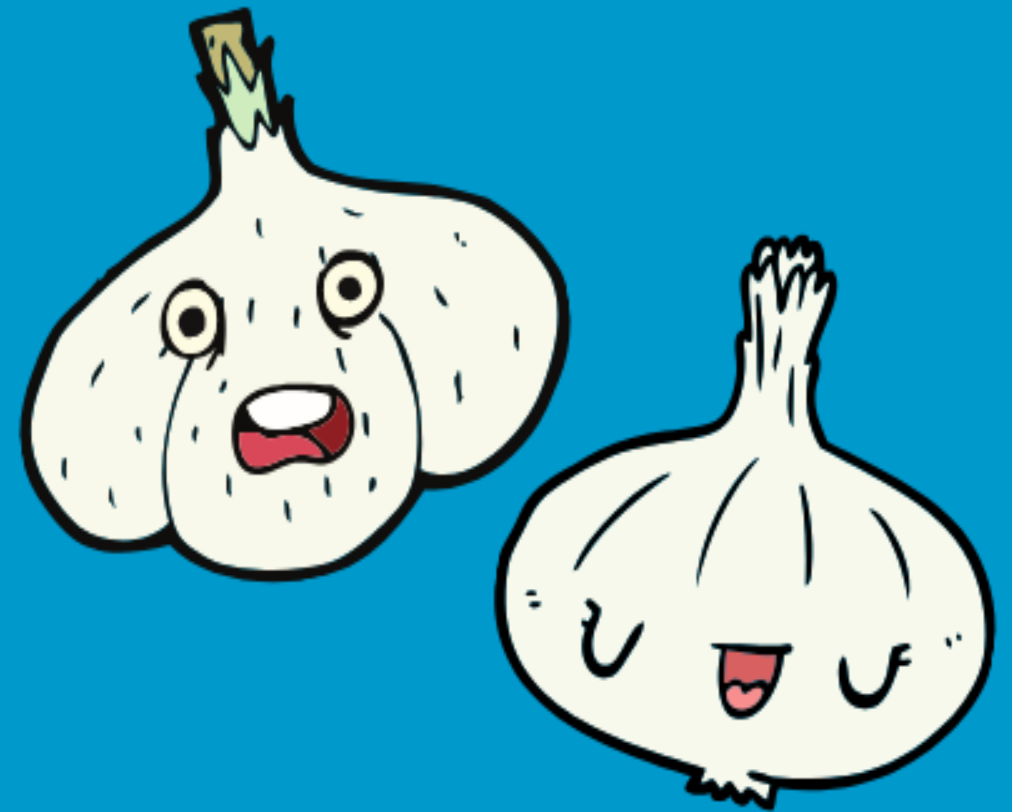
No. There is no evidence that using mouthwash will protect you from infection with the new coronavirus. Some brands of mouthwash can eliminate certain microbes for a few minutes in the saliva in your mouth. However, this does not mean they protect you from 2019-nCoV infection.

Can gargling mouthwash protect you from 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)**

Can eating garlic help prevent infection with the new coronavirus?

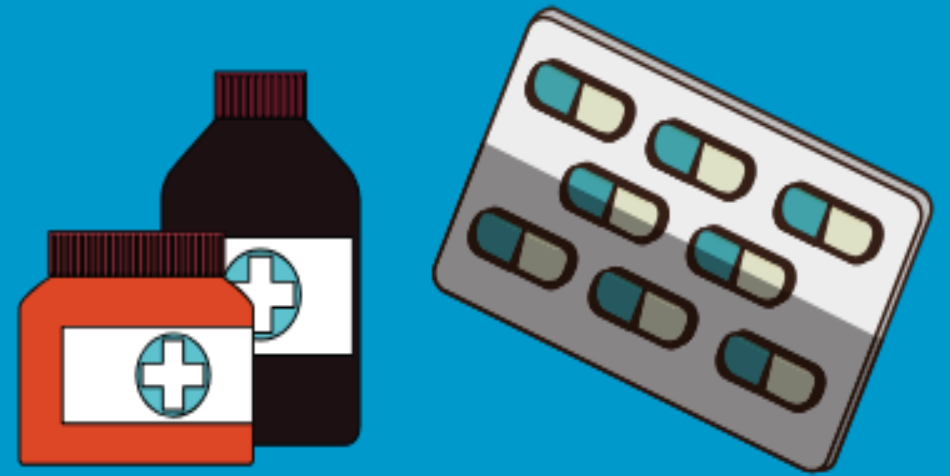


No, antibiotics do not work against viruses, only bacteria.

The new coronavirus (2019-nCoV) is a virus and, therefore, antibiotics should not be used as a means of prevention or treatment.

However, if you are hospitalized for the 2019-nCoV, you may receive antibiotics since bacterial co-infection is possible.

Are antibiotics effective in preventing and treating the new coronavirus?



To date, there is no specific medicine recommended to prevent or treat the new coronavirus (2019-nCoV).

However, those infected with the virus should receive appropriate care to relieve and treat symptoms, and those with severe illness should receive optimized supportive care. Some specific treatments are under investigation, and will be tested through clinical trials.

WHO is helping to accelerate research and development efforts with a range of partners.

Are there any specific medicines to prevent or treat the new coronavirus?



STAY HEALTHY WHILE TRAVELLING

**Avoid travel if you have
a fever and cough**



**If you have a fever, cough and
difficulty breathing seek medical
care early and share previous
travel history with your health
care provider**



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STAY HEALTHY WHILE TRAVELLING

**Avoid close contact
with people suffering
from a fever and cough**



**Frequently clean hands by
using alcohol-based
hand rub or soap and water**

**Avoid touching eyes,
nose or mouth**



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STAY HEALTHY WHILE TRAVELLING

**Eat only well-
cooked food**



Avoid spitting in public

**Avoid close contact
and travel with
animals that are sick**



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