UFRJ advises on prevention and risks

UFRJ has been developing a series of initiatives to combat the global epidemic of COVID-19, a disease caused by the new coronavirus that emerged in China at the end of 2019. To monitor the crisis, a multidisciplinary working group with health researchers was created in order to develop actions to guide, diagnose, and treat possible cases.

How to reduce the risk of infection?

- Avoid crowds and environments without adequate ventilation.
- Avoid close contact with sick people, people presenting symptoms or those with any signs of respiratory problems.
- Be careful with potentially contaminated objects (handrails, door handles, cell phones, switches, taps, shopping carts, etc.).
- Wash your hands thoroughly with soap and water for at least 20 seconds at every opportunity. Otherwise, use rub sanitizers containing 60% to 70% alcohol. Always avoid touching your eyes, nose, and mouth.

A person within one of the following situations should be considered a suspect case:

**Situation 1**: fever and at least one respiratory symptom (cough, shortness of breath, among others) and history of travel to an area with community transmission at least 14 days prior to the appearance of signs or symptoms.

**Situation 2**: fever and at least one respiratory symptom (cough, shortness of breath, among others) and close contact with a suspected case of Coronavirus (SARS-CoV-2) at least 14 days prior to the appearance of signs or symptoms.

**Situation 3**: fever or at least one respiratory symptom (cough, shortness of breath, among others) and close contact with a confirmed case of Coronavirus (SARS-CoV-2) at least 14 days prior to the appearance signs or symptoms.

In case you show symptoms:

- Frequently disinfect surfaces and objects you touched.
- Cover your mouth and nose when coughing or sneezing with a disposable mask or tissue paper if possible and throw it away afterwards.
- If your hands have come into contact with used tissue paper or secretions, you should clean them immediately so as not to contaminate other surfaces.
- Protective masks (disposable) must be worn by patients (when in contact with other individuals) and by people directly involved in the treatment.
- It must be taken into account, however, that the use of masks alone without the adoption of other protective measures (such as washing hands) is ineffective.

Frequently Asked Questions

What is the coronavirus?

The new coronavirus (SARS-CoV-2) was detected in December 2019 in Wuhan, China. Viruses in the coronavirus family can cause respiratory infections of different degrees of severity.
The disease caused by the contamination of this new variation of the virus was called COVID-19.

**How does transmission occur?**

The main mode of transmission of the new coronavirus is similar to that of influenza viruses, through droplets from coughing or sneezing, as well as contamination of the hands with respiratory secretions by direct (handshake) or indirect contact (touching contaminated surfaces and touching mouth, nose, or eyes afterwards).

**When do the symptoms begin to appear?**

When someone is infected, there is an incubation period when they have the virus in their body, but still have no signs or symptoms. This period can last from 2 to 14 days. In most cases so far, the average observed is 5 days. Then signs and symptoms start to show, such as cough, fever, and/or shortness of breath. Some patients may experience tiredness, body pain, malaise in general, nasal congestion, sore throat, or chest pain. Some people may have no symptoms or have mild, barely noticeable symptoms.

**What are the risk groups?**

The risk groups for SARS-CoV-2 are: people over 60 years of age; people who have other diseases, such as: hypertension, chronic respiratory diseases, neurological diseases, and diabetes; in addition to immunocompromised individuals and individuals using immunomodulatory therapy (transplant patients, for example).

**What is the mortality rate of the disease?**

According to morbidity and mortality data already reported in other countries, the estimated mortality rate is 0.4% up to 49 years of age; 1.3% between 50-59 years; 3.6% between 60-69 years; 8% between 70-79 years; and up to 15% in patients older than 80 years.

**How is the prevention of the coronavirus disease?**

First, wash your hands with soap and water for at least 20 seconds as often as possible. Otherwise, use rub sanitizers containing ≥ 60% up to 70% alcohol and avoid touching your eyes, nose, and mouth. In addition, exposure to risk should be avoided, which means, as a priority, you should avoid crowds, environments without adequate ventilation, and contact with sick people and people with respiratory symptoms.

**How to differentiate a common flu from COVID-19? Do the coronavirus disease always cause a fever?**

Some symptoms can be very similar, such as fever, body aches, malaise in general, nasal congestion, sore throat, which can appear in some individuals (not everyone develops all symptoms). Watch for dry cough and shortness of breath, which are warning signs of SARS-CoV-2 infection.
I have some symptoms, what should I do?

If you suspect that you are infected with the new coronavirus, before going to a healthcare facility, call the Ministry of Health at 136 for better guidance. It is also possible to access the Coronavirus-SUS app, which provides guidance, including on possible locations for diagnosis and care.

In addition, it is important to follow other measures, as already explained on this page, to prevent infecting other people.

Is there any reason worry?

There is no need to panic. It is important to take individual measures and to urge authorities to take appropriate public health actions to contain the virus.

One measure that will avoid overloading the health facilities is to use them only if absolutely necessary. If you suspect that you are infected with the new coronavirus, before going to a healthcare facility, call the Ministry of Health at 136 for better guidance.

What changes with the change of status to a “pandemic”?

In practice, the actions will be maintained. Those countries that do not yet have the epidemic should take action to contain the entrance and spread of the virus as much as possible. In countries where there is already an epidemic, it is necessary to create robust health care to prevent severe patients from dying.

When is the person considered cured?

There is still no consensus, but there is a clinical cure (when the person recovers without showing signs and symptoms) and a cure considering the virological status (testing negative). The common procedure is to send patients who have been clinically discharged to be isolated at home, even if testing positive.

Should I get a flu shot?

Yes. Flu vaccination protects most vaccinated individuals from influenza infection and the development of influenza. As the symptoms of influenza can be confused with COVID-19 symptoms, vaccination against influenza should decrease the number of people with influenza and consequently the number of suspected cases of coronavirus infection. This is important particularly for individuals over 60, who also have a high risk of developing more severe flu symptoms. Thus, vaccination against influenza will decrease the number of people who will seek health services.

How do the tests and diagnosis of the disease work?
The test is based on the detection of the virus's genetic material in the patient's nasal secretion. The sample is collected with a swab (similar to a cotton swab) and taken to the laboratory for a specific test, called RT-PCR, for the new coronavirus. Currently, diagnostic testing is being recommended for patients with symptoms, prioritizing those with severe symptoms. The medical team responsible for the screening will make the decision whether or not to do so with the aim of ensuring that testing is available to those who are most likely to be infected.

Currently, UFRJ is developing a new test to detect antibodies in people with suspected COVID-19 in a simpler, faster, and cheaper way than the PCR test.

**Does health insurance cover the coronavirus test?**

Yes.

**Who should be quarantined?**

The quarantine guidance is for all those who arrive from travel in general, even if asymptomatic, or who have maintained direct contact with people who have arrived from travel, whether confirmed, probable, or suspected cases. These people must remain at home for a period of 14 days, carrying out their activities remotely.

**With the increase in quarantine recommendations, will the number of cases be lower?**

Yes. The recommendation to only test for severe symptomatic cases will give a false impression that we have few cases of COVID-19. We must not relax. The recommendation to stay at home and for physical and social distancing is the best measure to reduce the pandemic.

To avoid overloading the health facilities, we should only seek medical help if the symptoms get worse. The main symptom to be observed is shortness of breath. In case of mild symptoms, stay at home.

**Does homemade alcohol sanitizer work?**

It is very important that the alcohol concentration be between 65% and 80% for it to be effective. To guarantee the quality and efficiency of alcohol sanitizer, it must be done by a professional in compliance with current regulations. Making alcohol sanitizer at home can be risky. It is important to remember that washing your hands with soap and water correctly is sufficient for your protection! If you are at home now and there is no alcohol sanitizer, you do not need to make one. Just wash your hand with soap and water!

**Is it possible to get infected more than once with the SARS-CoV-2 coronavirus?**

It is not yet possible to confirm this hypothesis. It is one of the questions that science has yet to answer.
Can a person who has already had symptoms and apparently got better have COVID-19 and transmit it?

Yes. The recommendation is isolation or quarantine for at least 14 days or until the test comes back negative.

What is the recommendation for pregnant women?

So far, no increased risk for pregnant women has been described, and there is no evidence that the infection affects the fetus. In a recently published Chinese study, SARS-CoV-2 infection was followed up in a group of pregnant women and a group of non-pregnant women in the same age group. Both groups had the same percentage of severe cases. Among 16 infected pregnant women, only one had a severe condition, and the baby was born clinically healthy. Despite a limited number of cases, this study indicates that infection is not at greater risk for pregnant women, who should protect themselves in the same way as the rest of the population.

Can mothers who are breastfeeding and have contracted COVID-19 continue to breastfeed normally?

There is no indication for the suspension of breastfeeding, as there is no transmission of viruses through breast milk. If pumping milk is not possible, it is recommended that the mother breastfeed her child using a mask.

Is wearing masks alone enough to avoid contagion?

No. It is still necessary to take other precautionary measures, such as washing hands and using alcohol sanitizer to clean contact surfaces.

The use of masks can be recommended for individuals who have shown some respiratory symptoms in order to prevent the spread of the virus and infection of other individuals.

In addition, the use of masks is recommended for healthcare professionals and people who are in contact with infected patients. Important: the other preventive measures must be maintained even with the use of masks.

How long does the virus live outside the body in a package touched by an infected person in a market, for example?

We cannot say for sure how long the virus remains viable on surfaces. This depends on many variables, such as temperature, humidity, surface material. Studies with SARS-CoV-1 indicate that the virus can remain viable from a few hours to 9 days. A recent study with SARS-CoV-2 showed that it remains viable in aerosols for 3 hours, on plastic or stainless steel surfaces for 3 days, on copper for 4 hours, and on cardboard for 8 hours. But pay attention to one detail: the test was done at 21°-23°C and 40% humidity.
It is important to remember that SARS-CoV-2 can be easily inactivated on surfaces using water and soap or 70% alcohol sanitizer and most cleaning products that contain soap (soap, detergent, etc.) or chlorine (disinfectants, bleach, lysol, Pinhosol etc.).

**Are there medications that aggravate the symptoms of COVID-19, such as ibuprofen?**

It is not possible to answer that yet. As explained in the True or False? section, the World Health Organization (WHO) made an announcement on March 17, 2020 advising against the use of ibuprofen in individuals who have symptoms of COVID-19. However, although many studies are in progress, there is still not sufficient clinical data to lead to a final word on the topic. On March 19, 2020, WHO released a note revoking the previous announcement. But as a precaution, the Ministry of Health maintains the recommendation to replace ibuprofen with other drugs.

**Are there any drugs proven effective against COVID-19, such as chloroquine and hydroxychloroquine?**

It is not possible to answer that yet. As explained in the True or False? section, Anvisa published a technical note on March 19, 2020 explaining that, although promising, there are no conclusive studies that prove the use of hydroxychloroquine for the treatment of COVID-19. Therefore, there is no recommendation for infected patients or even as a way to prevent contamination by the new coronavirus.

**Should people undergoing treatment for autoimmune diseases who take corticosteroids continue to use the drugs even if this worsens the symptoms of the coronavirus?**

It is important that individuals who make continuous use of any medication do not interrupt it without consulting a doctor.

**Does taking vitamins for the immune system prevent me from having more serious complications if I get infected?**

No. A healthy immune system will undoubtedly help fight viral infections. However, if you have a balanced diet, you are already ingesting the necessary amount of vitamins for the proper functioning of your body and immune system.

There is no scientific evidence that vitamin supplements can prevent complications from COVID-19.

**What is the difference between coronaviruses?**

Coronaviruses are part of the Coronaviridae family, which includes viruses that infect humans and other animal species, such as cats, dogs, bats, birds, etc. These viruses have a very similar structure and genome, but they can cause different diseases in the animals they infect. For example, coronaviruses that infect dogs and cats cause gastroenteritis. Those that infect humans cause respiratory diseases. Some human coronaviruses are usually associated with
common colds and, eventually, cases of pneumonia. Others were associated with more severe respiratory conditions with a high mortality and morbidity rate.

Is it true that the coronavirus has a high degree of mutability?

No. Mutations are changes in the genome that can occur during the virus multiplication process. Viruses of the Coronavidae family are those that have RNA as a genome. All viruses with this structure have a mutation rate that can be higher or lower, depending on the virus. Coronaviruses, however, have a protein responsible for “checking” whether the genome is being produced correctly. Thus, the mutation rate of these viruses tends to be low. But there are still not enough studies to say what its “degree of mutability” is.

What is the difference between the human coronavirus and the animal coronavirus?

In general, coronaviruses have a transmission restriction between species. Thus, human coronaviruses are those that infect humans exclusively. The same is true for coronaviruses that infect other animals. Eventually, this barrier can be broken as mutations can occur and enable viruses that only infect animals to become capable of infecting humans, as happened with SARS-CoV-2, for example.

I received a dubious news via WhatsApp and I am not sure of its veracity. How to proceed?

The orientation for the whole community is to look for reliable sites, such as those of UFRJ, the Ministry of Health, and the State Health Secretary Office, to find adequate information. You can also send an email to coronavirus@ufrj.br to contribute with our website.

Are classes maintained?

No. According to official note issued by the Rector, classes are suspended for 15 days as of March 16, subject to reevaluation at the end of the period.

Are the activities of administrative staff maintained?

According to official note issued by the Rector, only the activities considered essential will be maintained, with the implementation of shifts and remote work in specific cases.

Are extracurricular activities maintained?

At this moment, the recommendation is that all extracurricular activities (inaugural classes, ceremonies for the delivery of honorary titles, taking of office and commemorative, scientific, artistic, and cultural events) should be suspended.

Are there any specific guidelines for study and work environments?

Recommendations are to avoid closed air-conditioned environments, to open windows, to clean surfaces in these places frequently, and to use alcohol sanitizer on hands.

What is a productive quarantine?
The productive quarantine consists of home isolation for 14 days with the maintenance of remote study and/or work activities. People must keep in touch with their immediate bosses, in the case of civil servants, and with their professors or with the course coordinator, in the case of students, to fulfill the necessary demands.

People in productive quarantine should avoid going to enclosed and crowded places.

In case of contact with any member of the academic community who has tested positive, should I leave the University now?

Yes. The recommendation is to be absent for 14 days after proven contact, following recommendations for productive quarantine.

In case of absence from work or class due to suspected contagion, will these absences be excused?

Yes. Absences will be excused upon proof of contact with an individual who has tested positive.

What documents are necessary for absences to be excused?

In the case of travelers, a copy of the passport or return ticket. Students or civil servants who have had contact with suspected or confirmed cases for the coronavirus must submit a self-declaration describing such contact in detail.

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