The COVID-19 epidemic has had an enormous impact on transport and global connectedness. In order to contain the spread of the virus, many countries have closed their borders and imposed internal travel restrictions. As a result, the number of flights has fallen dramatically worldwide (by over 90% in April).

As soon as the public health situation allows, countries will start to reactivate their economies and international passenger flights will resume. It is therefore important to define and implement a series of measures to protect the health of travellers and transport workers, with special consideration for the populations most vulnerable to the disease.

Regardless of the status of the COVID-19 outbreak at any given time, it is always advisable to provide travellers with specific advice and encourage a series of preventive health measures, including vaccination, especially for people travelling to high-health-risk destinations such as countries with a high risk of malaria, dengue fever or other tropical diseases.

In this document, we outline a series of health recommendations for travellers to follow before, during and after a journey.
1. Before You Travel

1.1. Virtual or In-Person Appointment?
Before embarking on an international journey, we recommend scheduling a virtual appointment with a healthcare facility that offers international health or travel health services. During this appointment, you will receive advice about how to make your trip safer. You should be able to obtain drug prescriptions remotely.

If you need a vaccine, you will have to visit the facility in person. During your in-person visit, safety measures will be taken to protect you and the healthcare workers (masks, hand washing, etc.). In-person visits should be limited to travelers who require vaccination and those who have difficulty with virtual appointments.

Table 1. What Vaccines Should Be Considered During the COVID-19 Pandemic?

1. **Seasonal flu.** Since COVID-19 is fundamentally a respiratory disease, people who travel during flu season should get a flu shot. Flu vaccination has two benefits: it prevents COVID-19 from being mistaken for the flu while also preventing co-infections, which are more dangerous, especially for vulnerable patients.

2. **Pneumococcal disease or Haemophilus influenzae.** These are two examples of respiratory diseases for which vaccination is highly recommended in chronic or at-risk patients.

3. **SARS-CoV-2.** There is currently no vaccine for COVID-19. However, various laboratories are working to develop a vaccine and clinical safety trials in humans are already underway.
1.2 Travel Insurance
Make sure you have travel insurance that covers COVID-19 as well as repatriation costs.

1.3 Do Not Travel If You Develop Symptoms
If you develop any symptoms that could indicate COVID-19, do not travel. Seek medical attention immediately. Likewise, if you develop symptoms during your trip or on your way home, seek medical attention immediately.

1.4 Preventive Measures
1.4.1 Masks
SARS-CoV-2 is mainly transmitted by virus-containing respiratory droplets. These droplets are relatively large and capable of travelling no more than two metres. Transmission by aerosols—which allow viral particles to remain airborne for longer periods and travel greater distances—has not been demonstrated outside of hospital settings.

Table 2. Choosing a Mask

<table>
<thead>
<tr>
<th>Type of mask</th>
<th>Type of protection</th>
<th>Does it protect me?</th>
<th>Does it protect others?</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric or hygienic</td>
<td>Protects against droplets (flu or COVID-19)</td>
<td>Yes, but only if used in conjunction with other measures, such as hand washing and physical distancing</td>
<td>Provides some protection: can block 50%-80% of particles, depending on the material</td>
<td>Suitable for the general public</td>
</tr>
<tr>
<td>Surgical</td>
<td>Protects against droplets</td>
<td>Yes, but only if used in conjunction with other measures, such as hand washing and physical distancing</td>
<td>Provides some protection: can block up to 90% of particles, depending on the material</td>
<td>Suitable for the general public</td>
</tr>
<tr>
<td>FFP2</td>
<td>Protects against aerosols (rhinovirus, tuberculosis)</td>
<td>Yes</td>
<td>Yes</td>
<td>Especially recommended for high-risk travellers, as long as hospitals are not facing shortages</td>
</tr>
<tr>
<td>FFP3</td>
<td>Protects against aerosols</td>
<td>Yes</td>
<td>Yes</td>
<td>Used in the health care sector. May be recommended for high-risk travellers</td>
</tr>
</tbody>
</table>

Most masks are single-use. However, some types of FFP2 and FFP3 masks are reusable; these masks are marked with the letter R.

Given the current mask shortage, some sterilisation techniques, such as dry heat or steam, are recommended if no other options are available. Fabric masks should be washed at high temperature (at least 60°C).

Exhalation valves are dangerous because the wearer can expel the virus into the environment and infect other people. If you use a mask with an exhalation valve, wear a surgical mask over it.
Table 3. World Health Organisation (WHO) Advice on Proper Mask Use

- Make sure the mask covers your mouth and nose snugly, with no gaps between your face and the mask.
- Avoid touching the mask while wearing it.
- To take off the mask, remove the loops from behind your ears. Avoid touching the front of the mask. Remember to wash your hands afterwards.
- If the mask is damp, replace it with a clean, dry one.

1.4.2 Other Measures

- **Gloves.** In general, gloves are not recommended because they create a false sense of safety and can cause cross-contamination. **Hand washing is more effective.**

- **Hand washing.** This preventive measure has been shown to help reduce the incidence of respiratory diseases. Hands should be scrubbed in a specific way with soap and water (especially if visibly dirty) or with alcohol-based hand sanitiser. Solutions containing at least 60% alcohol are the most effective. Frequent disinfection of objects and surfaces is also advisable.

- **Respiratory hygiene/cough etiquette.** These additional hygiene measures can prevent the spread of most respiratory infections:
  - When coughing or sneezing, cover your mouth and nose with a tissue or the inside of your elbow and wash your hands immediately.
  - Avoid sharing food, utensils or other objects unless they have been properly cleaned.
  - Avoid touching your face (especially your eyes, nose and mouth) with unwashed hands.

Table 4. First-aid Kit for Travellers

Besides following basic travel recommendations, remember to pack:

- Masks
- Alcohol-based hand sanitiser
- Thermometer

1.5 Can I Travel Now? What Rules Apply in My Destination Country?

Although no international protocol has been adopted, certain countries or airlines may establish special measures for international travel during the COVID-19 pandemic. Various options have been considered, including:

- **Quarantine on arrival,** even for asymptomatic travellers. This option could make short trips—whether for business or for pleasure—impractical.
- **Immunity passports.** These documents could be issued to individuals who test positive for specific antibodies against SARS-CoV-2. Such a scheme could potentially be used to identify travellers who have already had the disease and are therefore protected against reinfection. However, given our limited understanding of the virus, we believe that immunity passports are not a viable solution. Among other scientific and ethical concerns (see document #9 in the COVID-19 & response strategy series, Is an Immunity Passport an Option as Part of a Deconfinement Strategy?), there is currently no evidence that the presence of antibodies confers protective immunity.

- **Certificate of a negative PCR test in the last 48-72 hours.** This document would show that the traveller underwent a PCR-based diagnostic test two or three days earlier and was negative for active SARS-CoV-2 infection. Certificates would be issued by accredited health care facilities that use PCR tests, since the reliability of rapid diagnostic tests for COVID-19 has not yet been established. This option would significantly reduce—if not fully eliminate—the risk of infection in travellers, especially if used in conjunction with other protective measures. Countries with high rates of international mobility—such as Spain—must consider logistical, validation and cost-related aspects to determine
whether this approach can be applied in practice. If feasible, it could be used only for visitors from countries with high rates of community spread of SARS-CoV-2 at the time of travel, or from countries for which limited epidemiological data are available and risk assessment is not feasible.

The website of the Spanish Ministry of Foreign Affairs provides up-to-date information on travel requirements for different countries. The International Air Travel Association (IATA) website also provides information on travel regulations. Travel clinics at major hospitals are another good source of information, although travellers themselves are ultimately responsible for complying with the latest requirements. Moreover, given the circumstances, countries may impose certain last-minute requirements.

1.6 Considerations for Different Types of Trips

• **Business travel.** To minimise the risks of SARS-CoV-2, it is important to seek travel health advice before any business trip. Travel clinics—like the one at Barcelona’s Hospital Clinic—often have pre-travel consultation agreements with companies. In addition, companies should take out travel insurance to cover the cost of any sort of incident involving an employee.

• **Visiting family or friends.** Now more than ever, it is important to visit an international health service to learn about the COVID-19 situation in the destination country and find out how the virus has affected other health risks (malaria, dengue fever, etc.).

• **Cooperation or humanitarian aid.** Make sure the organisation you are going to work for has specific protocols for the prevention of COVID-19 and for treatment and evacuation, in case they become necessary. Aid workers should be assessed to determine whether they are physically and psychologically fit to work in the midst of this outbreak. People travelling to malaria risk areas need to be able to correctly administer malaria prophylaxis. Similarly, people travelling to Lassa fever or Ebola virus risk areas need to follow specific protocols and quarantine themselves upon their return.

1.7 Vulnerable or Chronically Ill People

• If you have a chronic condition, carry extra medication in case unexpected problems arise or your return trip is delayed.

• Some people with hypertension, diabetes and obesity are at risk of developing more severe disease if they contract COVID-19. If they must travel, they should take out insurance that covers COVID-19 and familiarise themselves with the health infrastructure in their destination country beforehand.

• **Immunosuppressed people.** This population is not known to be at increased risk of contracting COVID-19, but they could face a worse prognosis if they do become infected. Immunosuppressed travellers should take the same precautions as everyone else. In particular, they should wear a mask, which will protect them from SARS-CoV-2 as well as other pathogens. If possible, they should wear either a FFP2 or FFP3 mask, preferably without an exhalation valve (or with a surgical mask over the valve). Immunosuppressed people must avoid crowded areas. In the event of health problems, they should contact their usual health care provider, if possible.

• **Pregnant women.** Pregnancy is not known to increase the risk of COVID-19. Nevertheless, pregnant women are a vulnerable population. Since pregnant international travellers face other risks besides COVID-19—malaria, Zika virus, etc.—and access to health systems may be disrupted by the pandemic in some countries, it is advisable to consult a specific travel clinic beforehand.

• **Older people.** COVID-19 mortality statistics show that older adults—especially those over 60 years of age, even if otherwise healthy—are the people most vulnerable to the virus. It is important that they take precautions to avoid infection.
2. At the Airport

“According to the IATA, most modern commercial aircraft are equipped with high-efficiency particulate air filters similar to those used in operating theatres. Therefore, the risk of infection during a flight is not high.”

AENA, the Spanish airport authority, recommends the following:

- Keep a safe distance from other people and always wear a mask while waiting in a queue (security checkpoints, etc.).
- Do not arrive more than 90 minutes early for your flight.
- Avoid crowded areas inside the airport.
- Check your departure time, since flight schedules may be affected.
- Remember that airport access is likely to be restricted, so non-travellers will not be able to accompany you inside.

Some international airports may perform extra checks and impose security measures such as frequent temperature screenings or some form of traveller “disinfection”. Be prepared for longer wait times and other eventualities.

3. During Your Flight

While aboard the airplane, remember:

- Masks are required on many, if not all, airlines.
- Use hand sanitiser and wash your hands often.
- Drink enough water to keep your mouth and throat hydrated (the air inside airplanes is very dry).
- Cabin air is either 100% fresh or a mixture of fresh and recirculated air (10%-30%). According to the IATA, most modern commercial aircraft are equipped with high-efficiency particulate air filters similar to those used in operating theatres. Therefore, the risk of infection during a flight is not high. However, it is possible to become infected through contact with a seatmate, even if he or she is asymptomatic—hence the importance of wearing a mask and practicing good hand hygiene.
- It is also advisable to remain seated whenever possible, use the designated toilets in your section of the cabin, and contact a crew member if you feel unwell. At the moment, it appears that airlines are not planning to leave empty seats between passengers. Recommendations are changing frequently, so it is important to stay abreast of the latest developments.
- Some services, such as in-flight meals, might not be offered for reasons of hygiene.
As mentioned in section 1.5, some countries may require travellers arriving from heavily affected areas, such as Spain, to quarantine themselves. Alternatively, travellers may be asked to present health certificates.

During your stay in the destination country:

- To avoid contagion, do not visit health care facilities unless you become ill.
- Stay away from markets and animals, which can be vectors of diseases, including COVID-19.
- Avoid busy or crowded areas where it is impossible to keep a safe distance from other people.
- When visiting remote areas, remember that the nearest health care facility may be very far away.
- Choose accommodation that complies with regulations, especially with regard to common areas.
- Avoid shared transport, especially if you belong to a vulnerable population.
- Follow the guidance of the health authorities in your destination country.
- Consider using specialised telemedicine tools during your trip to stay in contact with medical specialists. As with your pre-trip appointment, telemedicine can play a crucial role while you are abroad. In addition to standard travel insurance, we recommend engaging the services of a specialised telemedicine provider that can field queries during your trip. The travel clinic at Barcelona’s Hospital Clinic provides a mobile app that allows travellers to contact tropical medicine specialists at any time while overseas. The clinic also monitors travellers after they return—an essential precaution during a pandemic.

As mentioned above, it is essential to have health insurance when you travel. When travelling abroad, it is also important to have information about your country’s consulates and embassies. Consider registering with the Ministry of Foreign Affairs’ travel registry so that you can be contacted in the event of an emergency.

If you develop symptoms during your stay or, in particular, when you are about to head home, the airline may prevent you from returning. Always seek medical attention if you develop symptoms of any sort. However, if you travel to a vulnerable country, bear in mind that the health system might be overwhelmed and it could be difficult to access care and treatment.

If you have been in contact with suspected or confirmed cases of COVID-19, notify the health authorities and follow their instructions.

“Some countries may require travellers arriving from heavily affected areas to quarantine themselves or present health certificates.”
Do you have to quarantine yourself after you return? In theory, after you visit a country with a larger number of cases than Spain, it would be logical for you to quarantine yourself or use another method of controlling SARS-CoV-2 infection. In any case, comply with local guidelines and follow official recommendations.

1. If you develop any symptoms, seek medical attention and notify the health authorities if you have been in contact with a suspected or confirmed case of COVID-19.

2. If you have visited a tropical or subtropical region—and, as a rule, after any international trip—it is advisable to consult an international health or tropical medicine specialist, since diseases such as malaria can be very serious if not treated promptly.

Remember that, in addition to the possibility of contracting SARS-CoV-2 or other infections, travellers can also infect other people. Always follow official recommendations and make sure you do not put others at risk.

Finally, in this age of information overload, it is important to use reliable information sources that are recognised or recommended by experts. We recommend the World Health Organisation (WHO) website, which debunks many of the most common myths about the coronavirus.
TO LEARN MORE

• Map of confirmed COVID-19 cases across the world, created by ISGlobal using data from Johns Hopkins University
• Travel recommendations, International Air Transport Association (IATA)
• Operational guidelines for the management of air passengers, European Union Aviation Safety Agency (EASA)
• General travel advice, Centers for Disease Control and Prevention (CDC)
• CDC Yellow Book: Health Information for International Travel
• Travellers’ health information, European Centre for Disease Prevention and Control (ECDC)
• Travel advice, World Health Organisation
• Travel and transportation during the coronavirus pandemic, European Union
• UK National Travel Health Network and Centre (NaTHNaC)
• International travel and health, Spanish Ministry of Health (in Spanish)
• Travel advice and vaccinations, Catalan Government (in Catalan)
• Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC) (in Spanish)