

### **Which countries/regions are affected by diseases caused by novel coronavirus (SARS-CoV-2)?**

Information on current case numbers, affected countries, international risk areas, and areas specifically affected in Germany can be found at [www.rki.de/covid-19-fallzahlen](http://www.rki.de/covid-19-fallzahlen) and [www.rki.de/covid-19-risikogebiete](http://www.rki.de/covid-19-risikogebiete). There have been confirmed cases in Germany since the end of January 2020.

Status: 28.02.2020

### **What is known about the pathogen and the disease?**

Information on SARS-CoV-2 (official name of the novel coronavirus) and COVID-19 (official name of the disease caused by the novel coronavirus) is summarized in the [COVID-19 fact sheet](#), including:

- Transmission paths
- Disease progression
- Symptoms
- Risk Groups
- Incubation period
- Duration of infectiousness
- Case fatality rates
- Hospitalizations
- Vaccination

The fact sheet is based on the ongoing review and evaluation of literature. Available data is increasing rapidly and the document is continuously changed, expanded, updated and edited.

Status: 10.03.2020

### **What is RKI's assessment of the situation in Germany?**

Please find the current risk assessment for Germany [here](#).

Status: 29.02.2020

### **What does it mean for Germany if the coronavirus SARS-CoV-2 continues to spread in the country?**

It's not known how many people will become infected with the coronavirus in Germany. Estimates suggest up to 70% of the population will be infected, but over what period of time is unclear. It is impossible to predict the consequences for Germany: The situation could be more severe than a severe wave of influenza, but it could also be milder. There have been severe cases and deaths in Germany.

Preparations for a further spread in Germany should be intensified at all levels:

Recommendations for clinics and doctors in private practice

- Review pandemic plans
- Prepare organizational processes

- Useful resources for these measures include Influenza pandemic plans, which should already be available at all levels, and the guidelines outlined in the [supplement to the National Pandemic Plan - COVID-19](#)

Recommendations for laboratories:

- Include SARS-CoV-2 in [differential diagnostics](#)
- The RKI is also examining samples from patients with flu symptoms for SARS-CoV-2, as part of the Arbeitsgemeinschaft Influenza (Influenza Working Group)

Recommendations for citizens

- Stay informed via official websites that offer quality-assured information, e.g. the [Federal Ministry of Health](#) and State Ministries of Health, [Robert Koch Institute](#), [Federal Centre for Health Education](#). If necessary, refer to the [responsible public health department](#) for information about the local situation

- Do not disseminate dubious information on social media
- Practice [good hand hygiene](#); adhere to the [correct rules for coughing and sneezing](#)
- Do not shake hands
- Touch your face as little as possible to prevent any pathogens from being absorbed through mucous membranes in your eyes, nose or mouth
- Keep your distance from people visibly suffering from a respiratory disease, also because of the ongoing wave of flu and cold infections
- Stay at home if you are experiencing respiratory symptoms
- For more information consult these additional sources (in German):

[Optionen für Maßnahmen zur Kontaktreduzierung in Gebieten, in denen vermehrt Fälle bekannt wurden](#) (Options to reduce contact in areas where increased cases have been reported)

[Information provided by the Science Media Center](#): "Wie kann sich jeder Einzelne auf eine COVID-19-Pandemie vorbereiten?" (How can each individual prepare for a COVID 19 pandemic?)

Status: 11.03.2020

### **How can you protect yourself from infection?**

As with influenza and other acute respiratory tract infections, following the [correct rules for coughing and sneezing and good hand hygiene](#) and keeping your distance from ill persons (approx. 1 to 2 meters) also protect against coronavirus transmission. Avoid shaking hands. People with respiratory symptoms should stay at home if possible.

Status: 11.03.2020

### **Which age groups are particularly affected?**

Section 2 of the [COVID-19 fact sheet](#) ("Course of the disease and demographic influences") offers information on disease progression, affected age groups and risk groups.

More information (in German): [Help for people at higher risk of severe COVID-19](#) and [Prevention and management of illness in nursing homes](#).

Status: 11.03.2020

### **What is known about COVID-19 in children and pregnant women?**

WHO has published [data on children and pregnant women from the most affected regions in China](#). According to WHO, the disease seems to occur comparatively rarely in children and progresses mildly. Only a very small proportion of the affected children and adolescents in China showed severe or even critical disease progression. However, it is not possible to determine what role children and adolescents play in transmission and whether they are generally less susceptible to the virus with the data available to date.

According to WHO, pregnant women do not appear to have an increased risk of serious disease progression.

### **What is RKI's assessment of the situation, and what recommendations are there for experts?**

The RKI is cooperating closely with various authorities and institutions nationally and internationally. It is following the situation continuously and evaluating all information.

Accordingly, the Institute issues recommendations to a professional audience as to which measures should be taken to protect the health of people and to prevent and delay the disease's occurrence and further spread.

All information and documents are available and continuously updated at [www.rki.de/covid-19](http://www.rki.de/covid-19).

The current risk assessment can be found [here](#).

In the scope of influenza surveillance, RKI has been testing samples from patients with acute respiratory diseases at [Arbeitsgemeinschaft Influenza](#) (Influenza Working Group) practices for SARS-CoV-2 since February 24, 2020 in order to detect and monitor the circulation of SARS-CoV-2 early on.

Status: 10.03.2020

### **What is the goal of the infection prevention measures recommended by RKI?**

The strategy of the recommended measures is explained [here](#).

Status: 04.03.2020

### **What should people do if they think they've been infected with the novel coronavirus or have been to regions where there have been transmissions?**

- People who have had **personal contact** (regardless of travel) with someone who has received a **laboratory-confirmed SARS-CoV-2 virus diagnosis** should immediately contact their competent health office, regardless of symptoms. Find the competent health office for your area [here](#).

- People who have spent time [in an RKI-designated international risk area or in a specifically affected area in Germany](#) should - regardless of symptoms - avoid unnecessary contact and stay at home if possible. If acute respiratory symptoms occur, they should observe the [correct rules for coughing and sneezing](#) and [good hand hygiene](#). They should consult a doctor, contacting the doctor's office in advance by telephone and informing them of the trip to the affected area. Find your competent health office [here](#).

- The following applies for travelers from regions in which COVID-19 cases occur, but which are not international risk areas or areas that are specifically affected in Germany: If you develop fever, cough or shortness of breath within 14 days of your return, consult a doctor, contacting the doctor's office in advance by telephone and informing them of your recent travel history. You should also avoid unnecessary contact, stay at home if possible, observe the [correct rules for coughing and sneezing](#) and [good hand hygiene](#).

- On February 28, 2020, the joint crisis task force of the Federal Ministry of the Interior and the Federal Ministry of Health intensified measures for cross-border traffic to Germany on all routes. The press release issued February 28, 2020, states: " Regulations for air and sea transport carriers transport will be expanded. In addition to China, the health status of passengers from South Korea, Japan, Italy and Iran will have to be reported before entry. In addition, information on disease prevention must be distributed to all international passengers (including those travelling by rail and bus). The following already applies: For all flights arriving in Germany and in all shipping traffic, the responsible aircraft and ship masters are obliged to report any cases of illness before arrival".

Status: 29.02.2020

### **Why should close contacts be quarantined for 14 days?**

A further spread of the novel coronavirus in Germany should be prevented as much as possible or at least slowed down. To this end, as many people as possible who have been personally in contact with laboratory-confirmed cases need to be identified. Depending on individual infection risk, their health needs to be monitored for the maximum duration of the incubation period (14 days) – if necessary, also in domestic quarantine. The RKI provides [recommendations for the management of contact persons](#), which can be adapted to the situation locally by the responsible competent health office, taking into account the desired protection goals.

The competent health office determines the concrete procedure for contact persons in individual cases. The recommendations of the competent health office may include staying at home, keeping distance from third parties, regular hand hygiene and good ventilation of living and sleeping areas, and not sharing household items (dishes, laundry, etc.) with third parties without first washing them as usual. If possible, a private bathroom should be used. Toiletries should not be shared and laundry should be washed regularly and thoroughly (usual washing procedures). It is important to follow the [correct rules for coughing and sneezing](#). To remove secretions coming from the respiratory tract disposable tissues are recommended.

Family and friends can support the contact person in everyday life, e.g. by shopping. Close physical contact should be avoided. They can also help by ensuring good ventilation of the living and sleeping areas and regular hand hygiene. Contact surfaces such as tables or door handles should be cleaned regularly with household detergent.

Status: 10.03.2020

### **What should people who have recently been in a place that is now quarantined do?**

In order to prevent the further spread of COVID-19 as much as possible, authorities in various affected countries order that hotels, ships, towns and even entire regions be quarantined for a certain period of time. This does not necessarily mean that transmissions have taken place there. This is often a precautionary measure which is quickly lifted again once a suspicion has been ruled out. Anyone who learns that a place where they have recently been is now in quarantine should first check the news to find out why and for how long the quarantine was imposed. Often there is no reason to worry, e.g. if the person who has fallen ill arrived after you have already left or if your own

stay was 14 days or more ago without you having developed symptoms. If you are still concerned that an infection may have taken place, you can contact your . They can further assess the individual risk and recommend precautionary measures if necessary. Anyone suffering from symptoms should consult a doctor, contacting the doctor's office in advance by telephone and informing them and referring to the quarantined area. Depending on the severity of the symptoms, further clarification may be possible without hospitalization.

Status: 27.02.2020

### **When should the physician suspect an infection with a novel coronavirus and when is a laboratory examination necessary?**

The RKI has created a [case definition](#) and a [flow chart](#) that provides comprehensive assistance on which patients should be tested for the novel coronavirus in the laboratory.

Laboratory testing for SARS-CoV-2 is indicated if patients are suspected cases of COVID-19, i.e. if they

- had unspecific general symptoms or acute respiratory symptoms of any severity AND had contact with a confirmed case of COVID-19 within 14 days before the onset of illness

and/or

- have acute respiratory symptoms of any severity with or without fever AND have been in an international risk area or in a specifically affected area in Germany within the last 14 days before the onset of the disease. For risk areas refer to: [www.rki.de/covid-19-risikogebiete](http://www.rki.de/covid-19-risikogebiete).

For patients who do not meet these criteria, laboratory testing for SARS-CoV-2 should be considered if

- they have acute respiratory symptoms of any severity with or without fever AND have stayed in [regions with COVID-19 cases \(not international risk areas or areas particularly specifically in Germany\)](#) until max. 14 days before the start of the disease

or

- there is clinical or radiological evidence of viral pneumonia without alternative diagnosis and without identifiable risk of exposure.

Status: 06.03.2020

Status: 06.03.2020

### **How is an infection with SARS-CoV-2 detected in laboratory diagnostics?**

Direct detection of the pathogen is the decisive factor in determining an acute infection with SARS-CoV-2. The viral genome is detected using highly sensitive molecular test systems (real-time PCR). The net testing time is approximately 4 to 5 hours. It usually takes 24 to 48 hours from taking the sample to reporting the results.

In the early phase of the disease, swabs from the upper respiratory tract are particularly suitable as sample material (throat swabs or nasopharyngeal swabs). In later phases, secretions from the lower respiratory tract (e.g. sputum samples) can also be used for examination. Further information on testing can be found [here](#). SARS-CoV-2 may be detected in faeces long after the onset of symptoms, but this alone does not reveal how contagious a patient is.

To supplement the molecular diagnostics, radiological/imaging diagnostics should also be carried out in cases of severe disease progression.

For research purposes, virus cultivation in cell culture systems plays an important role. It requires both special expertise and laboratories designed for this purpose (in Germany a safety level 3 laboratory).

A test for SARS-CoV-2 specific antibodies in blood/serum can be useful for epidemiological questions. Currently, these tests are still in the development or approval phase and not yet available. They do not play a role in acute diagnostics, as it takes about 7 days (in individual cases even more) between the onset of symptoms and the detection of specific antibodies.

Status: 11.03.2020

### **Why are not all people with respiratory symptoms tested for SARS-CoV-2 as a precautionary measure?**

At present, it cannot be assumed that SARS-CoV-2 circulates widely in the population. Therefore, not every person with respiratory symptoms should be tested for SARS-CoV-2 as a precautionary measure, but only acute suspected cases (see [When should the physician suspect an infection with a novel coronavirus and when is a laboratory examination necessary?](#)) This procedure helps to ensure that the laboratories are able to test samples of acute suspected cases in a timely manner and are not overloaded.

In the scope of influenza surveillance, RKI has been testing samples from patients with acute respiratory diseases at [Arbeitsgemeinschaft Influenza](#) (Influenza Working Group) practices for SARS-CoV-2 since February 24, 2020 in order to detect and monitor the circulation of SARS-CoV-2 early on.

Status: 12.03.2020

### **Who has to be informed if there is a suspicion or evidence of disease with the novel coronavirus, and what happens to the data?**

A physician who suspects a patient of having the novel coronavirus must report this to the [competent health office](#) in accordance with the [Coronavirus Notification Ordinance](#). Any laboratory that detects novel coronavirus in a human must also report this to the competent health office. The notification must be made immediately and must reach the competent health office within 24 hours. The name, address and contact details of the person concerned must also be reported to the competent health office, so that they can contact the person and initiate the necessary measures (e.g. isolation of the patient, identification of contact persons).

In addition, information on the case is recorded at the competent health office and is transmitted anonymously (i.e. without name, address and contact details) to the competent state authorities and from there to the RKI. The RKI generally evaluates the nationwide data on infectious diseases and publishes them, for example, in the [Epidemiological Bulletin](#) and [SurvStat@RKI](#). The RKI also provides up-to-date information on COVID-19 cases at [www.rki.de/covid-19](http://www.rki.de/covid-19).

Status: 24.02.2020

### **What treatment options are available for the novel coronavirus?**

Not all diseases following infection with the novel coronavirus are severe, and most cases reported in China have been mild. Treatment of the infection focuses on the optimal supportive measures according to the severity of the clinical picture (e.g. oxygenation, keeping the fluid balance, if necessary antibiotic treatment of bacterial alternative/accompanying infections) as well as the

treatment of relevant underlying diseases. A specific therapy directed against the novel coronavirus itself is not yet available.

Status: 26.02.2020

### **What hygiene measures should be taken in medical facilities when caring for and treating patients with non-specific acute respiratory infections?**

The RKI has drawn up [recommendations for hygiene measures in the treatment of patients with SARS-CoV-2 infections](#).

In principle, suitable preventive and protective measures should already be taken when there is a justified suspicion of a communicable disease in order to prevent the nosocomial spread of the pathogen. In order to determine the necessary measures, a risk assessment must be carried out which takes into account various aspects, e.g. the transmission mechanisms, virulence/pathogenicity of the pathogen, epidemic potential and treatability. In the case of pathogens causing acute respiratory infections, e.g. influenza viruses or RSV, further measures are required in addition to basic hygiene to prevent transmission by droplets.

According to [KRINKO recommendations](#), these additional measures include:

- Accommodation of the patient in a single room, if possible with a private wet room, cohort isolation, were appropriate
- Use of personal protective equipment for staff, consisting of a protective gown, disposable gloves and tight-fitting multi-layer mouth-nose mask and, where appropriate, safety goggles, when entering the patient's room
- In addition, according to [TRBA 250 of the BAUA](#), the patient should also wear mouth-nose mask when work needs to be carried out directly on or near the patient, especially if employees may be exposed to the patient's coughing fits. If the patient cannot or does not wish to wear a mouth-and-nose mask, it is recommended that staff wear an FFP2 mask for their own protection when carrying out activities close to the patient. The measures should be adapted to the specific requirements once the respective pathogen has been identified.

Please note:

- Wearing respiratory masks, disposable coats, protective goggles and disposable gloves is part of occupational health and safety. The [Federal Institute for Occupational Safety and Health \(BAuA\)](#) is responsible for this.
- The RKI does not manufacture personal protective equipment and cannot provide assistance with procurement. For reasons of neutrality, we are also unable to enter into cooperation with manufacturers of any kind. For questions regarding the usability, durability and reprocessing of medical devices and items of personal protective equipment, the respective manufacturer can provide information. On the question of procurement of protective equipment, Federal Minister of Health Jens Spahn said at a press conference on March 4, 2020 that the joint crisis task force of the Federal Ministry of Health (BMG) and Federal Ministry of the Interior (BMI) has decided to stop the export of medical protective clothing as long as the demand in the health care system in this country was not covered. In addition, the BMG has decided to procure protective clothing centrally for doctors, hospitals and the federal and state authorities. However, Minister Spahn emphasized that the states, hospitals and medical practices should continue to buy and procure protective clothing themselves (the link to the press statement can be found [here](#)).

Status: 05.03.2020

### **Which disinfectants are protective against the novel coronavirus (SARS-CoV-2)?**

For chemical disinfection, agents with proven effectiveness and with the range of action "limited virucidal" (effective against enveloped viruses), "limited virucidal PLUS" or "virucidal" are to be used. Information on the disinfection of viruses can be found in the [corresponding statement of the RKI Virucidal Working Group](#). Suitable agents can be found on the list of disinfectants and disinfection methods tested and approved by the RKI ([RKI list](#)) and on the list of disinfectants by the Association for Applied Hygiene ([VAH list](#)). For officially ordered disinfection measures, the RKI-list must be consulted.

### **What is the ICD-10 code for cases of the new coronavirus (COVID-19)?**

On February 13, 2020, the German Institute for Medical Documentation and Information has included COVID-19 as "Coronavirus Disease 2019" and the key "U07.1!" in the German-language edition of the ICD-10 (ICD-10-GM; German Modification). In addition, the code of causes of death was added in the German-language edition of the ICD-10-WHO.

This enables the ICD-10-compliant specific coding of corresponding cases with immediate effect. The key U07.1! is created in the ICD-10-GM as a secondary code (exclamation mark key number) and must be used in addition to a primary code. For the ICD-10-WHO, the code U07.1 with identical content is implemented as a primary code. Further information on ICD coding is available on the [DIMDI website](#).

Status: 26.02.2020

### **What needs to be taken into account for major events?**

At trade fairs, congresses or events it is generally recommended to pay attention to the prevention of infectious diseases. The local authorities on site are responsible for initiating measures for trade fairs and trade fair visitors. If a disease spreads further, more extensive measures such as certain requirements for trade fairs etc. can also be arranged by the responsible health authorities.

As part of ongoing developments regarding COVID-19, the joint crisis task force of the BMG and BMI has concretised its recommendations for major events. The [press release](#) of 10.3.2020 states: "The joint crisis task force recommends the cancellation of all major public and private events with more than 1,000 expected participants. For all events with up to 1,000 expected participants, a risk assessment based on the criteria of the Robert Koch Institute should be carried out together with the responsible health authority". The criteria for a risk assessment of the RKI can be found [here](#).

Status: 11.03.2020

### **Why are authorities considering closing daycare centers and schools in the event of influenza pandemics or major disease outbreaks such as COVID-19?**

Closure of schools (as well as the cancellation of events) aims to keep people at a distance, prevent virus transmission and mitigate the dynamics of the outbreak. In general, it is difficult to weigh up such a measure: problematic would be, for example, the timing (at what time and for how long the schools are to be closed) and the care of the children, which could result in the parents being unable to work (also in the health sector).

So-called proactive closures of day-care centres and schools can be considered if an outbreak is very severe and the transmission rate would be much higher in children than in adults. According to initial international data, COVID-19 appears to occur comparatively rarely in children and then tends to be



mild. However, the role of children and adolescents in transmission cannot yet be determined with the data available to date.

So-called reactive school closures are conceivable in certain cases, if regular schooling can no longer be maintained due to illnesses of teaching staff or large proportions of the student body. The contact person is the local health authority.

Status: 11.03.2020

### **Where can I get further information?**

Information about the novel coronavirus for a professional audience is available at [www.rki.de/covid-19](http://www.rki.de/covid-19).

Information for citizens, including hygiene tips and answers to frequently asked questions (FAQ), is available from the BZgA at [www.infektionsschutz.de](http://www.infektionsschutz.de).

Hotlines for citizens are provided, among others, by the BMG, the Independent Patient Advice Service Germany, some federal states and health insurance companies.

Status: 04.03.2020

### **Does it make sense to wear a facemask in public to protect against acute respiratory infections?**

For the general public, the most important and effective measures for personal protection as well as for the protection of others from infection with respiratory pathogens are [good hand hygiene](#), adherence [to correct rules for coughing and sneezing](#) and keeping your distance (approx. 1 to 2 metres) from persons suspected of being ill.

If a person suffering from an acute respiratory infection has to move around in public, it may be advisable for this person to wear a mouth and nose mask (e.g. a surgical facemask) to reduce the risk of infecting other people with droplets that are produced when coughing or sneezing. For optimum effectiveness, it is important that the mouth and nose mask fits correctly (i.e. is worn tightly), that it is changed when wet, and that no (even unconscious) manipulations are made to it while it is being worn.

On the other hand, there is not sufficient evidence that wearing a facemask reduces the risk of infection for a healthy person wearing it. According to the WHO, wearing a mask in situations where it is not recommended can create a false sense of security that can neglect key hygiene measures such as good hand hygiene.

This does not affect the recommendations on wearing respiratory masks for medical staff in terms of occupational health and safety (see "[What hygiene measures should be taken in medical facilities when caring for and treating patients with non-specific acute respiratory infections](#)").

Status: 04.03.2020

### **Is there a risk of infection with the novel corona virus (SARS-CoV-2) via imported food, surfaces or objects?**

Coronaviruses, which can cause respiratory diseases, are primarily transmitted via secretions of the respiratory tract. If these infectious secretions reach the hands, which then touch the face, for example, it is possible that transmission also occurs in this way. [Good hand hygiene](#) is therefore an important part of prevention. On the other hand, transmission via inanimate surfaces has not yet been documented. An infection with SARS-CoV-2 via surfaces that do not belong to the direct environment of a symptomatic patient, such as imported goods, mail or luggage, therefore seems

unlikely. In general, thorough hand washing, as recommended by the [Federal Centre for Health Education \(BZgA\)](#), is an important part of personal hygiene and can protect against a variety of other infections such as gastrointestinal diseases.

Regardless of this, the Robert Koch Institute is not responsible for evaluating food or objects. Questions on this topic belong to the area of responsibility of the [Federal Institute for Risk Assessment \(BfR\)](#), while the Federal Institute for [Occupational Safety and Health \(BAuA\)](#) is responsible for the topic of occupational safety.

Status: 07.02.2020

### **What does the "Health emergency with international implications" declared by the WHO mean?**

The World Health Organization (WHO) has determined on January 30, 2020 that the current outbreak of the novel coronavirus in China is a "Public Health Emergency of International Concern (PHEIC)". The WHO has made a number of [recommendations for the affected and neighboring countries](#) to contain and control the outbreak. The classification has no direct consequences for Germany, as the WHO recommendations have already been fulfilled here.

Status: 31.01.2020

### **Where can you find out whether a trip to an affected country is still safe?**

Health recommendations for trips abroad are given by the Federal Foreign Office (AA). Current information on the security situation in individual affected countries can be found on the [AA's country pages online](#). The Robert Koch Institute does not make any recommendations and does not offer travel medicine advice.

Status: 04.03.2020

### **What are coronaviruses?**

Coronaviruses were first identified in the mid-1960s. They can infect both humans and various animals, including birds and mammals. Coronaviruses cause various diseases in humans, from common colds to dangerous or even potentially fatal diseases such as Middle East Respiratory Syndrome (MERS) or Severe Acute Respiratory Syndrome (SARS).

In the past, serious diseases caused by coronaviruses such as SARS or MERS were less easily transmitted than influenza, but they have nevertheless led to major outbreaks, sometimes in hospitals.

Status: 24.01.2020

### **What is known about the cause of this outbreak?**

SARS-CoV-2 is thought to be derived from bats, but intermediate hosts have not yet been identified. It is currently believed that the first patients became infected in early December at a market in Wuhan, Hubei province, China.

Status: 02.03.2020

### **Can the virus mutate?**

There is always the possibility that viruses can genetically change. But mutations do not automatically change the characteristics of the virus.

Status: 24.01.2020