FAQ COVID-19 Large-Scale Testing

AIM OF THE LARGE-SCALE TESTING

Why do comprehensive tests make sense?
At the beginning of the pandemic, we already had a high level of infection in Luxembourg compared to the size of the population. In addition, we now know that the majority of infected people show no symptoms (an estimated 80 % of those infected). According to the CON-VINCE study, in addition to the currently confirmed cases, there are still around 1,500 people who carry the virus but are asymptomatic (status: May 7, 2020). That means they carry the virus within themselves without developing symptoms but can still infect other people. So far, all people have had little contact with others in the lockdown. However, as soon as the contacts increase again, the likelihood of infecting others increases. If the measures are relaxed, the number of infections could rise again quickly. Our health system then again risks being in a critical situation in which not everyone could be adequately treated. Testing helps to identify asymptomatic virus carriers that in consequence stay at home for 2 weeks. This prevents them from infecting others and can also inform and enables to test their contacts in order to interrupt the infection chains at an early stage.

Can a second wave be prevented this way?
We have to assume that the increased contacts will lead to more infections. How many there will be depends on how well everyone adheres to the hygiene measures and how many people can be tested. The more tests we can do, the more infection chains can be interrupted and the lower the number of new infections will be that could lead to a second wave.

Is that all only about scaremongering right now? Aren't the number of new infections now manageable?
It is true that Luxembourg has mastered the crisis well so far. That gives reason to be optimistic. But we must not forget that without security measures, the virus spreads exponentially. I.e. a few individual cases can quickly turn into hundreds, thousands of cases. This should be avoided so that we don't have to go back into a lockdown. The test strategy is not about creating panic; on the contrary, it is about introducing an additional measure that will allow us to regain a little more normality faster and more safely.

What is the benefit of getting myself tested?
On the one hand, the test will of course find out what your own health status is: positive means you are currently infected with the SARS-CoV-2 virus, negative means you currently have no infection (the test cannot find out whether you have already been in contact with the virus if you are no longer (no longer) infected – only antibody tests can do this).

Large-scale testing is not just about the individual, but mainly about the population as a whole. With each asymptomatic virus carrier that can be identified by the test and then quarantined at home for another two weeks, the risk of infection for everyone else decreases. In this way, each individual can help to identify infection chains at an early stage and protect their family, friends, work colleagues and especially risk groups from potential infection.

For the individual, a negative test result does not mean, of course, that the person no longer has to adhere to the usual hygiene measures. The protective measures continue to apply to everyone: wash hands, keep distance, wear mask (where necessary), sneeze and cough etiquette etc.

What is the point of a large-scale testing if I am tested negative today and can still be infected 2 days later?
In theory, of course, it would be better if everyone could be tested every day. But this is not possible for logistical / practical reasons. Nevertheless, the principle of "all or nothing" does not apply here, but quite simply: the more people are tested, the more new infections can be avoided because the tests identify and

isolate more people who are potentially contagious. The test strategy does not mean 100% protection for all of us. But any measure that helps prevent new infections improves the situation and public health. And the test strategy clearly contributes to this – this is scientifically undisputed. This is particularly important for professional groups with a lot of personal contact (e.g. nurses, hairdressers, etc.), as they could pass on the infection to a particularly large number of people through their work. It is therefore not a question of a single person no longer being able to be infected, but of reducing the overall risk. As soon as the percentage of infected people in a representative sample rises again, one can test again on a large scale to further minimize the risk.

Why were only people with symptoms tested at the beginning, and now everyone should be tested?
So far, only people with symptoms have been tested. However, recent studies show that a majority of those infected show no or hardly any symptoms – so they do not even know that they are positive and therefore contagious. This fact contributes significantly to the spreading of the virus. The nationwide test strategy is now about testing people without symptoms in order to identify and isolate these asymptomatic virus carriers.

Why are large scale PCR tests offered and not large-scale antibody tests?
Antibody tests indicate whether a person has already had the virus and is possibly immune. This is of personal interest. If it turns out to be certain that you are immune once you have the virus, it would be interesting for the individual to know. However, this plays only a secondary role for public health at this time because according to the CON-VINCE study, only about 2% of the population were infected with the virus. Only when a possible immunity is widespread in the population does this have a significant effect on the spread of the virus. Large-scale antibody tests would only make sense from then on.

However, PCR tests have an effect on public health. Because they allow currently infected people that might infect others to be identified and to then send them home so that they no longer infect other people. This way, one can avoid new infections. And the point in this phase of lifting the initial restrictions is to reduce the number of new infections to a minimum.

Without vaccination or medication, the coronavirus will hardly be manageable. Why do nationwide tests still make sense?
Even with testing, the virus will probably not disappear completely. Until then, however, the extensive testing allows us to relax the measures more safely and to keep the spread of the virus under control. Still, we'll have to live with the virus until a vaccine is developed.

What about herd immunity? Shouldn't be as many people as possible be infected with the virus as soon as possible?
Such an approach, without taking any protective measures, would result in a large number of deaths in a short time. Mortality at COVID-19 is currently estimated to be around 0.7%. At the same time, the virus is very contagious, much more than, for example, influenza flu. If you simply let the virus spread its course, many people would get sick at the same time and the health system would be overloaded (capacity in hospitals, etc.). Ultimately, many people would die in a short time. Simulations assume several thousand deaths within a few weeks in Luxembourg.

How can the virus be kept under control?
There are several strategies to keep the novel corona virus under control:

- One option is to strictly limit physical contacts between people, as was the case in lockdown.
- Another option is through hygiene measures such as safety distances, wearing face masks and regular and correct washing of the hands. The solidarity and discipline of the entire population play an important role here.

- Another one is to use tests to identify and isolate those who are virus carriers and therefore infectious. The following also applies here: Having a test is above all a protection for others. I could be infectious without knowing it.
- It is also important to trace the contacts of identified people and to quarantine them as a precaution. This can be done manually (as is currently the case in Luxembourg) or with the additional help of an app.
- A good monitoring system also helps to keep the virus under control. It is therefore important to keep an eye on the relevant figures such as the number of reproductions, but also to monitor the number of freely available intensive care beds, the number of new infections, the age of the newly infected, etc. This makes it easier to predict how high the risk is in order to allow the loosening of as many restrictions as possible. At the same time, however, it can also be recognized at an early stage when a potential second wave is forming, which in the worst case would result in a lockdown – which should be avoided
- A combination of the above measures to keep the novel corona virus under control is the most effective.

What is contact tracing and what role does it play un the test strategy?
Contract tracing means that you understand the contacts of an infected person and ask them to stay at home and / or have themselves tested, in order to interrupt the infection chain. This can either be done manually by employees of the health inspection department or supported by digital methods such as apps. In order to prevent another lockdown, it is necessary to keep the number of new infections so low that tracing the infection chains remains possible. In Luxembourg, contact tracing is currently carried out manually by the health authority. The tests in conjunction with contact tracing make it possible to break infection chains, and thus reduce new infections.

Is the large-scale test strategy a research project?
No. The mentioned large-scale testing project is – as far as the test itself is concerned – a project by different players from Luxembourg research, but not a research project. It is a **contribution to public health** in which public-law research institutions make their knowledge and expertise available to accompany political decisions.

Is the test voluntary or not?
Yes, the test is voluntary. However: the more people who can be tested, the better. This way many people with current SARS-CoV-2 infections can be identified and isolated – and thus contribute significantly to the success of a normalized life in view of the ongoing pandemic risk.

What do the contingents look like?
Contingents are allocated according to the government's exit strategy. That means, they are defined by the government. First of all, people who are in contact with others because of their work are tested. Gradually, more contingents will be invited for testing. According to a detailed time schedule, contingents are tested either entirely, in subgroups or in representative samples.

Can everybody be voluntarily tested or chosen within a contingent or does the task force randomly select the people to be tested?
Testing is of course voluntary. However, the extensive testing is carried out according to a specific time schedule. As soon as you receive an invitation by letter, you can make an appointment for the test. In sectors in which not a whole contingent is tested, but (first) a representative group within the contingent, these people are selected at random.

Are all the contingents tested only once? And why isn't everyone in a contingent tested directly?
Whether a contingent is tested completely and how often it depends on various factors:

- High risk of coming into contact with infected people due to work (e.g. nursing staff)
- High number of work-related contacts (e.g. hairdressers)
- How high is the prevalence (percentage of infections in the tested group) in a representative sample of the contingen
- Etc.

Who is tested regularly?
People who are at high risk of contracting an infection or are in contact with many other people are tested every two weeks. This affects e.g. people who work in the healthcare, police, daycare, hairdressing, and cosmetic sectors.

Are cross-border commuters also tested?
The more than 200,000 cross-border commuters in Luxembourg make up an important part of the Luxembourg's work environment. Therefore, they are included in the corresponding contingents and are also invited to be tested. The contigents therefore go beyond national borders.

Are children tested too?
Yes, children are included in the extensive testing and, like adults, will receive an invitation by post.

I do not work. Will I be tested as well?
At this moment, the first steps of the large-scale test strategy focus on the working population and students. In a further step, however, random samples of the entire population are also invited to be tested.

TEST

What kind of test is the PCR test and why can it also detect the virus in asymptomatic people?
The PCR test uses a throat swab and molecular biological techniques to determine whether a current, active SARS-CoV-2 infection is present, i.e. whether the test person is currently carrying the virus and therefore is contagious. It does not matter whether there are symptoms of COVID-19 or not. The genetic material of the virus can be detected using the PCR test. This is also present when the infected person shows no symptoms. No blood sample is taken in the test and tested for antibodies against SARS-CoV-2. Such a test would also primarily identify people who have already had an infection in the past.

How reliable is the PCR test?
In general, COVID-19 PCR tests have improved a lot in the past few weeks and have increased their sensitivity significantly. The PCR test used in the large-scale testing has a sensitivity of 100 %, so that even the smallest amounts of virus can be detected. As a result, there are very few false negative results. The tests are therefore also suitable for finding asymptomatic virus carriers.

Which samples are taken for the COVID-19 PCR test?
For this, a throat swab is carried out using a cotton swab.

A pooling method is used to increase the test capacity. What does that mean?
Pooling means that 4 tests are evaluated at the same time. This is possible because overall, still relatively few positive cases are expected at this point. If the pooled analysis is positive, all 4 samples are checked again separately. With this method, the efficiency and thus the capacity of large-scale testing can be increased while maintaining the same quality.

What is the difference between antibody tests and PCR tests?
The PCR test using throat swabs is about identifying and consistently isolating people who are currently infected with SARS-CoV-2, i.e. are contagious (as well as people with whom they have been in contact). The antibody test investigates a blood sample is tested for antibodies against SARS-CoV-2. This test has a different goal: namely to identify people who have already been infected with the virus and are healthy or on the way to recovery.

If antibodies can be detected in the blood sample, this means with a high probability that the test subject has already been infected with the virus. However, whether and for how long these antibodies protect against further infection, i.e. It is not yet known whether there is any immunity. More information about the two tests can be found in this article (DE/FR).

Performing a PCR test, you do not know whether this person has already had the virus. Why are there no large-scale antibody tests currently being carried out?
The large-scale test strategy is primarily about identifying and isolating asymptomatic people with a current SARS-CoV-2 infection. This can currently be most reliably determined using a throat swab and PCR. With an antibody test, on the other hand, you can only determine whether a person has already had an infection, but not necessarily whether it is still current and, above all, whether the test person is still contagious.

Are the antibody –based tests also planned?
The CON-VINCE study, in which a representative group of the population was tested for antibodies, showed that currently only about 2% of the population has developed antibodies against the SARS-CoV-2 virus (this is also called 'seropositive'). This means that we are still far away from herd immunity, which would only have been reached at around 60 %. If we now ran large-scale antibody tests, we would only get a very, very large number of negative results and thus waste a large amount of resources. Large-scale antibody tests only make sense if approx. 30 % of the population has already been in contact with the virus.

I feel sick , should I now be examined as part of the large-scale testing?
Please contact your family doctor or a Center de Soins Avancés. For people with COVID-19 symptoms, the instructions from the health inspection department continue to apply. More information can be found here.

I feel healthy. Should I still get tested?
The majority of those infected show little or no symptoms. So, they don't know that they can carry the virus and pass it on. The COVID-19 PCR test tells you if you are contagious to others. If you let yourself be tested and follow the instructions of the health department, you will help to protect your family, friends, colleagues and last but not least the risk groups – and thus keep the spread of the virus under control.

I have already been tested and my test was negative . Should I get tested again?
Yes. The PCR test can only identify current infections within a certain time window. You may have been infected without knowing since the last test result. Please get tested as soon as you receive an invitation by post.

PROCEDURE AND TIME FRAME

Where are the tests conducted?
There are 17 drive-in and 2 walk-in / bike-in stations across the country. View the full list of locations with addresses on guichet.lu via this link.

How many people can be tested from when?
The extensive testing started on May 18, 2020. By June 1, 2020, the capacities will then be continuously increased to up to 20,000 tests per day. This means that almost 1 million tests can be carried out during the next 2 months.

When and how can I get tested?
You will receive an invitation by mail from the government in collaboration with the Luxembourg Institute of Health to be tested. With the voucher code in this invitation, you can book an appointment at one of our test stations on the website before you go to the test site. When you receive a letter depends on the time schedule developed for the large-scale testing and the contingent to which you are assigned to.

Should you need further assistance to make an appointment or encounter any technical issue please contact our hotline at the following call-charge number : **(+352) 28 55 83-1**.

How can I cancel or reschedule my appointment?
If you wish to cancel or postpone your appointment, please refer to the link provided to you in your appointment confirmation email. Please note that cancellation on site is not possible.

How long is the voucher valid?
With the voucher code in the invitation, you can book an appointment within the next two weeks.

Do I need prescription / referral from a doctor for the test?
No. You will receive an invitation by post to be tested. With the voucher code in this invitation, you can book an appointment at one of our test stations on the website before you go to the test.

My colleague has already eceived a letter, but I have not. What should I do?
You don't have to do anything right now. Because not all people in a sector or contingent are always tested at the same time, but sometimes representative samples are selected, not all people receive their invitation for testing at the same time, but by post over a period of several weeks. Please be patient and get tested as soon as you receive an invitation.

What do I have to take with me when I go to my test appointment?
Please show your letter of invitation, your identity card or passport and your insurance card. You will also be asked to provide a mobile phone number during the appointment reservation, on which you will receive an SMS as soon as your test results are available.

What happens if I don't want to take the test?
Nothing. The test is voluntary. If you are asked to be tested and still decide against it, it does not mean that you have to stay at home. However, there is a concept behind the test strategy (see above) that offers the greatest possible protection for everyone if as many people as possible take part (see question: Is the test voluntary or not?)

Isn't there a risk of getting infected during the test?
The personnel who perform the tests are trained and wear protective clothing and a mask. In addition, the drive-through concept at most test stations prevents you from coming into contact with other people, since the swab is carried out while you are sitting in the car. The risk of getting infected during the test is extremely small.

DATA & TEST RESULTS

When and how do I get my test results?
As soon as your test results are available, you will receive an SMS on the mobile phone number that you specified when registering. The SMS contains a code with which you can download your results on a website. You will receive an SMS with both a positive and a negative test result. This takes place within two working days. If the result is positive, you will also be contacted by the health inspection department and asked to stay at home for two weeks so as not to infect your fellow citizens.

What data is collected during the tests?
When registering for the test, personal data is recorded, e.g. your name, national identification number, address and telephone number. After analyzing the swab, a diagnostic test result is generated: positive or negative for SARS-CoV-2 virus.

What happens to my data?
The data are obtained from accredited diagnostic laboratories using diagnostic kits and examined in the laboratory. The data obtained is also forwarded from the test laboratory to the health inspection department in order to notify test subjects who may have tested positive. According to the law, medical laboratories are obliged to report contagious diseases to the health authority (Direction de la sante). SARS-CoV-2 infections are among these notifiable diseases (Loi du 1er août 2018 sur la declaration obligatoire de certaines maladies). The laboratories therefore send secure electronic information via the agency e-Sante every day about the people tested (e.g. name, national identification number, address, telephone number and test result). Among other things, this allows to contact the positive cases by phone, isolate them and track their contacts (contact tracing). In a statement by the National Data Protection Commission (CNPD) on the coronavirus crisis of March 13, 2020 (see http://www.cnpd.lu), it explicitly confirmed that the health authority may collect and process this personal data. On the part of the health authority, only employees of the health inspection (inspection sanitaire), which is a department of the health authority, have access to the confidential data.

The government is providing anonymized, aggregated data sets to public-law research institutions in order to statistically monitor the progress of the pandemic and to evaluate it for research purposes. The researchers have at no point access to the personal data of the people tested.

My test result was positive. What do I have to do?
Please stay at home for two weeks and follow the instructions given by the health authority to protect others. More information for people with COVID-19 can be found here.

My result was negative. Do I no longer have to comply with the hygien regulations?
It is important for everyone – also for people with a negative test result – to keep to the usual protective gestures (distance of 2 m, protective mask, wash hands etc.). They help to further reduce the risk of infection significantly.

COSTS

Do I have to may anything or submit and invoice to the health insurance compagny?
No, the tests are free for the participants. The budget for carrying out the large-scale testing was provided by the Ministry of Education and Higher Education.

Are the costs of up to 39.5 million euros for the entire large-scale testing justified?
The economic impact of the lockdown is noticeable per month in relation to the gross domestic product with an average loss of approximately 3,200 EUR per inhabitant of Luxembourg. The test costs per person are therefore relatively low in order to achieve an early and safe loosening of the lockdown.

PARTNER

Who carries out the large-scale testing?
The project is led the Luxembourg Institute of Health. The tests are carried out by its contractual partner Laboratoire Reunis, who is logistically supported by Ecolog. The large-scale testing is based on the proactive mitigation strategy developed by the Research Luxembourg COVID-19 Task Force.

How many test from which company have already been purchased? And how many people can you test with it?
So far (status: May 7, 2020), 500,000 tests have been purchased from Fast Track Diagnostics at a total price of 4.7 million euros. Thanks to the pooling method, over 1.7 million tests can be carried out with these tests.