



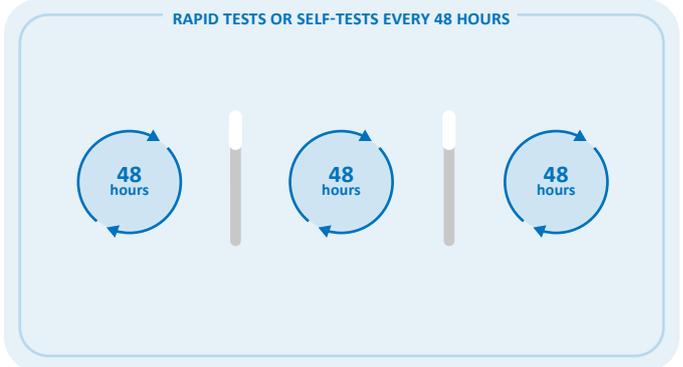
# The spread of the SARS-CoV-2 coronavirus can be slowed with antigen tests if the tests are used in complementary fashion to contain the pandemic.

## 1 What should I know about rapid tests and self-tests?

Antigen tests are separated into **rapid tests** (carried out by trained personnel in the test centre, with a results certificate generated afterwards) and **self-tests**, which the people who wish to be tested carry out themselves. The testing principle remains the same, it solely differs in who is performing the test: with antigen rapid tests these are trained personnel, with self-tests these are laypersons.



Extensive and frequent testing, ideally with high-quality antigen tests (either in form of rapid tests or self-tests, e.g. every 48 hrs) can help identify infectious people faster. This can make it easier to **break infection chains** and, over time, stem the spread of SARS-CoV-2. The more people regularly get tested and **self-isolate** in case they test positive, the more effectively we can break infection chains.



Antigen tests can identify the **differing virus variants** of the SARS-CoV-2 coronavirus with similar accuracy.

## 2 What do I do with the test result?

### POSITIVE

A positive test result does **not** constitute a **diagnosis**. It merely shows that a person possesses a certain probability of being infected and infectious. The result should be taken seriously. That means people who test positive should go directly home and remain there, self-isolate as far as possible and not have contact with other people. In addition, these should get a PCR test as quickly as possible in order to confirm the result. Call up your doctor, a test centre or the out-of-hours patient care services at 116 117.

### NEGATIVE

A negative test result does not constitute a diagnosis and provides **no absolute certainty**. It does mean, however, that you possess a **lower risk** of infecting others over the next few hours. Yet this risk does not equal 0. That is why the safest bet is to keep behaving in a manner that protects others (DHM+A: Distance, Hygiene, Masking up, + regular Airing). This also helps to avoid infecting yourself. The test result becomes less and less conclusive the more time passes since it was taken. That is why it is only valid for a single day.

#### SELF-ISOLATION



#### PCR-TEST



YOU HAVE TESTED POSITIVE?

YOUR DOCTOR, TEST CENTRE, 116 117



INFORM THE PEOPLE WITH WHOM YOU HAVE BEEN IN CONTACT



#### KEEP A DISTANCE OF 1,5 M



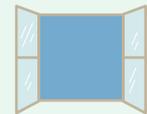
#### PAY ATTENTION TO HYGIENE



#### WEAR A MASK



#### REGULARLY AIR ROOMS



## 3 Which tests are particularly reliable?

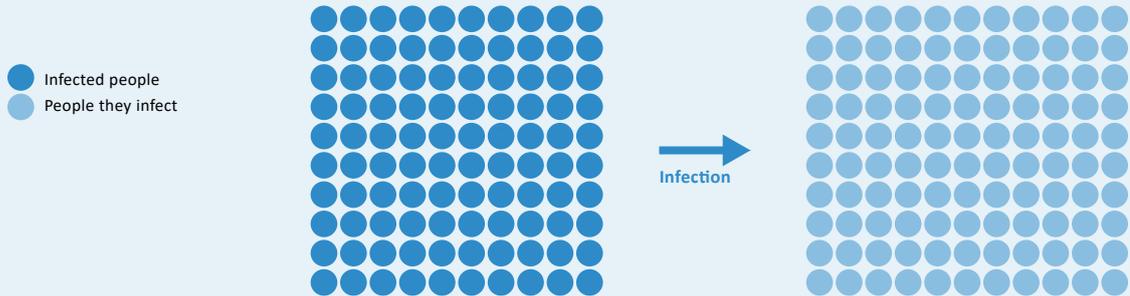
The Paul-Ehrlich Institute provides a list of antigen tests that fulfil the minimum criteria. The tests listed possess a sufficient level of reliability. The tests not listed here are either insufficiently reliable or their reliability has thus far not been independently confirmed. In case of symptoms, please take a PCR test, even if your antigen test result is negative.



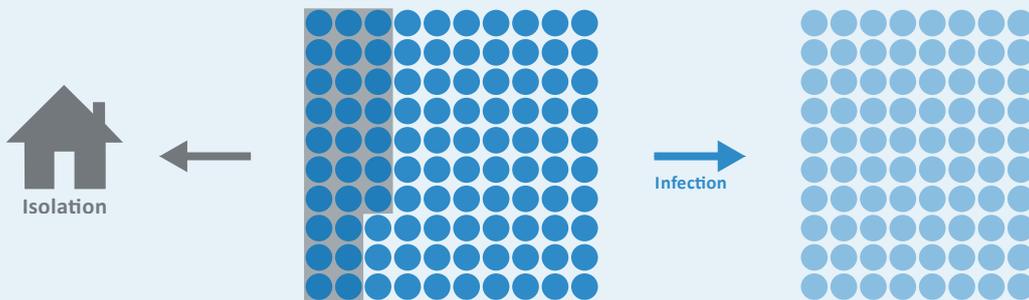


**How can coronavirus rapid tests and self-tests slow down the spread of the virus?**

If the R value lies at 1.1, this means that 100 infected people will infect 110 more (exponential growth):



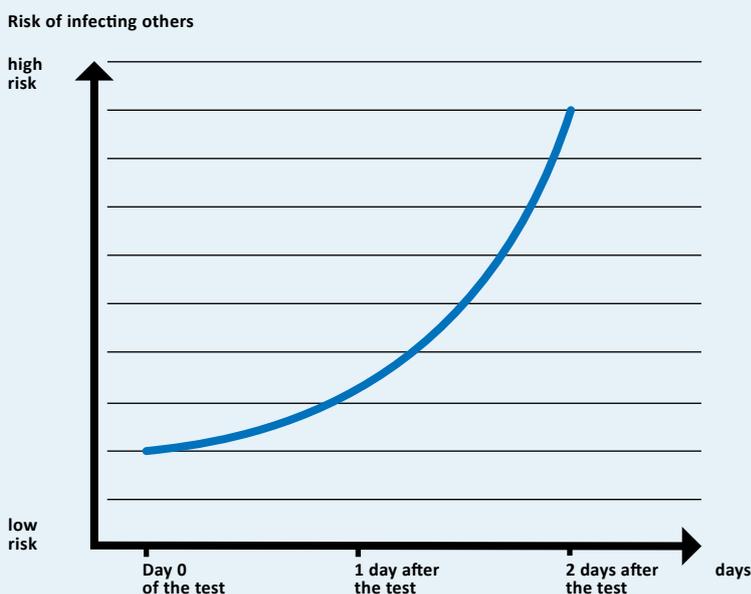
If testing repeatedly succeeds, for instance, in isolating 27 out of 100 infected people before they infect others, the R number thereby falls to 0.8, in other words 100 infected people infect another 80 people.



If the R number is kept under 1 on an ongoing basis, this slows the spread of the virus.

**Interrupting chains of infection using antigen tests.** This graphic illustrates how the spread of the SARS-CoV-2 coronavirus can be slowed down using antigen tests if applied as a complementary measure to contain the pandemic. By quickly isolating a significant proportion of people who test positive (see below), the spread is slowed down so that the isolated people no longer infect others. That lowers the R number. This occurs particularly effectively if the contact people of those who test positive are identified quickly and enter quarantine.

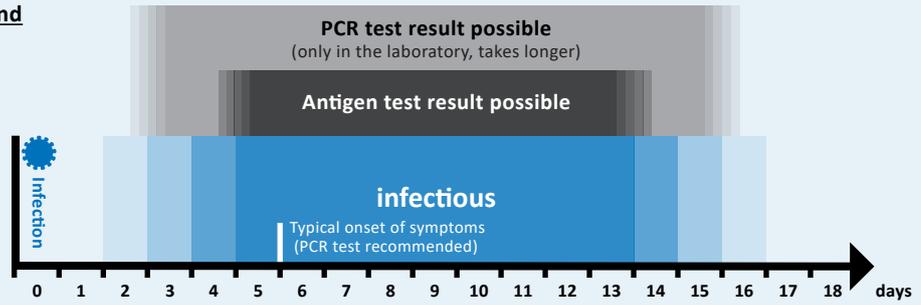
**Antigen test results represent a momentary snapshot**



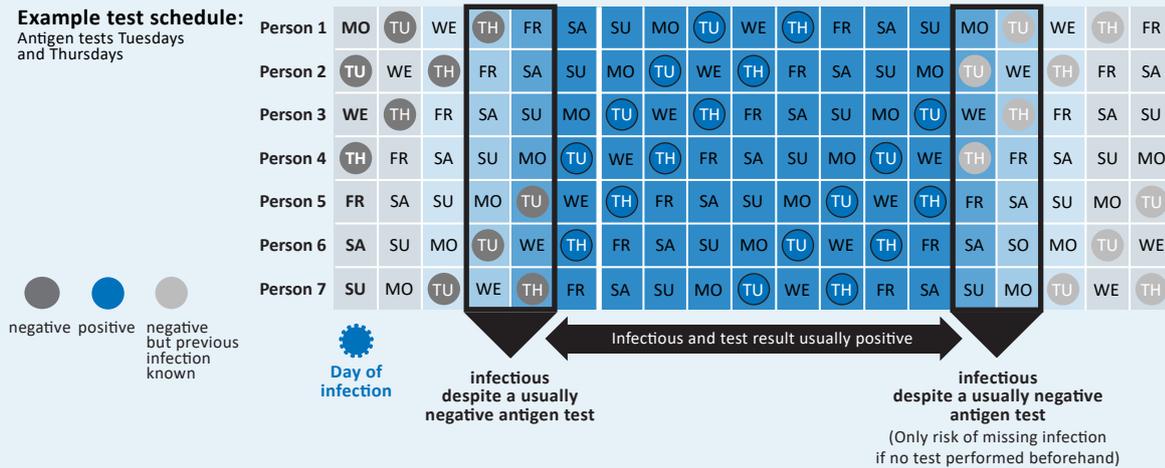
**Antigen test results represent a momentary snapshot.** This graph demonstrates how the risk of infecting others increases the longer ago the person tested positive. A positive test result can follow a negative result only a day later if the person was already infected at the time of the first test, but the antigen test could not yet find evidence of the antigen (virus protein); in other words, no proof of an infection.



**Antigen tests and frequent and regular testing**



**Example test schedule:**  
Antigen tests Tuesdays and Thursdays



**Time-limited detectability of infections by antigen tests through frequent and regular testing, displayed schematically.** This table illustrates a typical course of COVID-19 infection over just over two weeks. The infection takes place at Day 0. The top displays the time periods during which the infection can usually be detected either by means of a PCR or antigen test. This time period is shorter for antigen tests than for PCR tests. PCR tests can detect an infection both sooner and for a longer period of time. The point in time is marked on the chart when symptoms typically start, after 5 or 6 days (in the case of a symptomatic infection). In case of symptoms, you should get a PCR test, even if the antigen test turns out negative. The calendar shows seven people who get regularly tested every Tuesday and Thursday. The points schematically mark at what testing times of the infection the seven people’s antigen tests typically test positive vs negative. Assuming that with the onset of symptoms most antigen tests will be positive, we see that at this point in time two out of the seven people are identified. If the group of people was tested Mondays, Wednesdays and Fridays, it would be three. If the test took place once a week, it would be one. By testing more frequently, more people are identified sooner. Regular, frequent screening with antigen tests (also of asymptomatic people) enables early detection and containment of infection clusters (for instance, in schools or workplaces), but no absolute protection. In individual cases, test results may however be negative, despite the person already being infected and potentially also infectious.