

clinell®

Product Education

Contact times



What is contact time?

Contact time refers to how long a surface needs to stay wet with disinfectant to significantly reduce the number of microorganisms on a surface. A 3-log reduction is equivalent to a 99.9% reduction in viable microorganisms. For example, 1,000,000 bacteria would be reduced to 1,000, which for some microorganisms (not all) would reduce the risk of transmission significantly.

The higher the log reduction, the more effective the product is at reducing the number of microorganisms on a surface, usually depending on how long the disinfectant remains on the surface. By observing the necessary/required contact time (or 'wet time'), the surface is disinfected effectively. Depending on the product, contact times can range anywhere from 10 seconds to 10 minutes. That's why disinfection products should include instructions to ensure the surface is visibly wet for the appropriate amount of time.

How is contact time determined?

It is determined by the manufacturer of the disinfectant and is based on the microbiological testing conducted on the product following standard test methods, for example, EN16615. It is recommended to carry out this testing in an accredited lab to ensure confidence in the results.

Why do disinfectants need a contact time?

While all disinfection products are designed to kill microorganisms, their different chemical formulations require the appropriate contact times on a surface to make sure the product can effectively reduce the number of microorganisms and the risk of transmission.

Where can I find information on contact times?

Contact time information is usually found on your product's label, and often features several contact time recommendations. Multiple contact times are required because some organisms are easier to kill than others, and different product formulas need different times to significantly reduce the count.

For example, a disinfectant might have a 30 second contact time for Norovirus, but a 60 second contact time for Hepatitis B. The longest contact time is the one you should follow, as there could be a wide range of microorganisms on a surface. High-quality disinfectants can kill a wide range of microorganisms within a relatively short contact time, which is more practical than maintaining a wet surface for longer recommended contact times.

What if my product has a long contact time?

Products with lengthy contact times may require you to reapply the disinfectant multiple times so that the surface can stay wet for the right amount of time. Long contact times aren't particularly practical for disinfection on surfaces because most environments require a quick and easy process. It's important to check the products contact times when choosing a disinfectant so that you can select products that have practical and achievable contact times.



High temperatures, low humidity, and airflow

In certain conditions, including high temperatures, low humidity and airflow, it's difficult for disinfectants with longer contact times to stay wet. Disinfectants with high alcohol contents find it especially difficult because of their fast evaporation rate. However, if the disinfectant does dry on the surface before the right contact time has been met, reapplication is usually required to ensure contact times are met.



A clean surface

A clean surface is a critical component of decontamination before disinfection. To work as intended, disinfectants require a clean surface, because some disinfectants can't penetrate biological matter. Certain products can clean and disinfect at the same time, making them more time-effective and practical compared to products with only disinfecting properties.



A wet surface

Surfaces being disinfected must remain wet for the appropriate amount of time stated by the product manufacturer, to ensure that the product can achieve the claimed disinfection activity.

How will the contact time affect my cleaning?

Products with longer contact times will involve keeping surfaces wet for a longer period, increasing the amount of time spent cleaning. You shouldn't spray the disinfectant then wipe it away or use a wet wipe and dry the surface immediately, as the disinfectant hasn't had enough time to kill the microorganisms. Neither of these cleaning processes will work with the manufacturer's instructions and the disinfectant must reach the contact time to achieve the claimed log reduction. Doing so will not appropriately disinfect the surface.

Choosing the right product is critical. Look for short contact times, with at least a 99.99% claim, to make cleaning processes far more efficient and effective.