

Nano Science, Technology and Industry Scoreboard

Your Phone Is Dirtier Than a Toilet Seat! Here Is Nanotechnology's Solution

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Nanofixit Ventures has developed products to protect gadget surface from viral diseases such as COVID-19.

Some people argue that our mobile phones have become an extension of ourselves. We bring these devices with us everywhere and reach for them almost as a reflex. But as we come in contact with our gadgets numerous times in a day, these can also be readily contaminated and become potential sources of infection such as COVID-19.

"We need to look at which things we carry around with us every day and which have huge population growth of bacteria and viruses," said Kris Helgesen in an interview on CNN Philippines. Helgesen is the President and Chairman of Nanofixit Ventures, a company providing surface protection based on nanotechnology.

Helgesen cited research that found that our phones typically carry around 25,000 units of bacteria per square inch. According to another study, they are even dirtier than a regular toilet seat.

Helgesen said their company has developed products initially meant to protect gadget surfaces from scratch and breakage. However, they have also branched into alternative technologies to address sanitation issues, and have since produced disinfecting products not only for gadgets, but also for other items. These come in the form of surface protectors and wipes.

The company uses silver and titanium dioxide which are known to have antiviral and antibacterial properties, Helgesen said.

"When we break them down into nanoparticles, they become active and they start bonding with various kinds of surfaces," he explained, referring to their surface protectors which he

said "kills viruses that come in touch with it as long as the coat sticks."

Helgesen said the disinfecting effect of their protectors can last from three to 30 days, depending on the kind of surface it bonds with or used on.

"The bonding effect is very different [depending] on the surface and the material it is being applied to. So when we say 30 days, we are referring to hard metal, stainless steel or glass surfaces," he said.

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Responding to the health crisis

According to Helgesen, the company started to take more time into research and development after the COVID-19 news broke out.

Now, the company is currently developing face masks and hand sanitizers infused with "materials with high antibacterial and antiviral properties." Helgesen said their hand sanitizers are currently undergoing international testing and are expected to be ready for distribution next month.

The president said their company's goal is to help people move towards a healthier and more sanitation-conscious lifestyle, in order to curb the spread of COVID-19 and other pathogens.

"This needs to be addressed. We need to take individual responsibility. This is how we can go back to our normal lives eventually," he said.

Read the original article on CNN Philippines.