



COVID-19 Disinfectant Tunnels May Harm Humans More than Virus

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The first “disinfection tunnel” in the country was launched in Tiruppur on April 1 and several districts in Tamil Nadu and other states, including Karnataka, followed suit. After the number of such tunnels increased, experts raised concerns about the effectiveness of these chemicals sprayed on humans in killing the virus. Some of them even said the chemicals used to spray on humans might be more harmful than the virus itself.

Both the Central and State governments have been quick to set up disinfectant tunnels to sanitize people in public places amid the COVID-19 outbreak. But what has gone unnoticed is the chemical component — sodium hypochlorite, which is the main ingredient in bleach — present in the sanitizers. Experts suggest sodium hypochlorite can harm certain membranes in the body, instead of killing the virus.

It all started in Uttar Pradesh, where migrant workers were doused with the disinfectant used to sanitize buses. This sparked a controversy as it contained sodium hypochlorite. People took to social media to condemn the incident, forcing the District Magistrate of Bareilly, Nitish Kumar, to order action against officials responsible for the incident.²

According to the **World Health Organization (WHO)**, the disinfectants will work on surfaces, but not on the human body, and can also harm people. “Spraying alcohol or chlorine all over your body will not kill viruses that have already entered your body. Spraying such substances [alcohol or chlorine] can be harmful to clothes or mucous membranes [eyes and mouth],” WHO said in its advice to the public.⁷

No. Spraying alcohol or chlorine all over your body will not kill viruses that have already entered your body. Spraying such substances can be harmful to clothes or mucous membranes (i.e., eyes, mouth). Be aware that both alcohol and chlorine can be useful to disinfect surfaces, but they need to be used under appropriate recommendations.



#2019nCoV

Can spraying alcohol or chlorine all over your body kill the new coronavirus?



Explaining the effects of sodium hypochlorite, a **dermatologist**, who had retired from a government hospital in Tamil Nadu, said there was no evidence that it can kill the virus on the human body. "Instead, people doused in the chemical compound will get a tan when they are exposed to sunlight. Some will become alright in a month, but for many, the tan remains until they undergo medication," the doctor said.¹

Another **retired doctor**, who had been working in the Tamil Nadu Health and Family Welfare Department, too was sceptical about the impact of sodium hypochlorite on the human body. Sodium hypochlorite is widely used in toilet cleaners and mosquito repellents. In some toilet cleaners, 0.5 per cent of the chemical is used. Local bodies in Tamil Nadu use 1 per cent of sodium hypochlorite along with Lysol as mosquito disinfectant. This sprayed in open drains and streets for vector control.¹

European Centre for Disease Prevention and Control (ECDC)⁹ and **Indian Council of Medical Research (ICMR)** has recommended the use of sodium hypochlorite only on surfaces and not the human body. The ICMR, in its infection control guidelines,⁸ has recommended the use of 1 per cent of the chemical compound to clean surfaces with blood and body substance spills and they must be left to dry.

According to the ECDC's report, 0.05 per cent of Sodium Chlorite must be used for cleaning surfaces and 0.1 per cent for toilets. Even to clean clothes and Personal protective equipment (PPE) ECDC has not recommended the use of Sodium Chlorite.¹

Initially, disinfectant tunnels had been set up in China, where COVID-19 was first identified. But even in China, the usage of bleach to douse people came under sharp criticism as it would only harm people.

Punjab has been decided not to recommend use of disinfectant spray comprising of sodium hypochlorite on any human being. The decision was taken in a meeting of the state health department on Saturday.⁴

Director of Public Health and Preventive Medicine in Tamil Nadu has directed officials not to use that disinfection tunnels. The order states, "Disinfection tunnels will create a false sense of security and people may be diverted from hand washing to disinfection tunnel. In addition, the spraying of alcohol/chlorine/Lysol on human beings is not only harmful but also ineffective. Under the above circumstances, it is instructed that disinfection tunnels should not be installed and used." disinfection tunnels would create a false sense of security and people may be diverted from hand wash to the tunnel.³

Many experts state that than dangerous methods of disinfecting tunnels or disinfecting streets, sanitizing hands with regular hand wash is said to be the best way to keep the virus and germs away, apart from other methods including social distancing and following the lockdown rules.³

According to **Alok Dhawan, director, Indian institute of Toxicology Research, Lucknow**. The spray of this chemical in a mist form is not considered suitable for living beings and is commonly used to mop floor. as a disinfectant. "I would not recommend even 1% of this chemical composition. If there is a person who goes through this spray in a tunnel and is exposed more than once .. it might have some toxicity.its depends on immunity and other condition of person.⁴

According to **Prof Davinder Parsad, dermatologist at Chandigarh's PGIMER** "The solution can cause irritant reaction in some and thus is not advisable."⁴

According to **Dr Vijay Gopal of S3V Vascular Technologies** - Sodium hypochlorite even in low concentration is not recommended for usage on humans. It has been used for only cleaning surfaces but not Human, it is banned in US and EUROPE. It can be dangerous if used with other chemical as well.⁶

The **World Health Organization** warns that these tunnels are meant to supplement, and not replace other measures like washing hands

regularly, maintaining proper hygiene, wearing a mask, and maintaining social distancing.⁷

More importantly, a slight variation in the concentration of sodium hypochlorite could lead to mild to extremely serious side-effects, ranging from skin and eye irritation to severe burns.⁷

The World Health Organization has stated that sodium hypochlorite exposure may cause nasal irritation, sore throat and coughing. Exposure to stronger concentration of the chemical can cause serious damages including burning pain, redness, swelling and blisters, the disinfectants will work on surfaces but not on the human body and can even harm people.⁵

To avoid dangerous mishaps, It is important that the government quickly formulate and enforce guidelines for these tunnels.

References

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