

## CONSENSUS STATEMENT

# The use of disinfection tunnels or disinfectant spraying of humans as a measure to reduce the spread of the SARS-CoV-2 virus

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In endeavouring to mitigate the spread of the SARS-CoV-2 virus, a concerning practice of spraying individuals with disinfectant via so-called 'disinfection tunnels' has come to light. The Allergy Society of South Africa supports the World Health Organization in strongly condemning all human spraying, owing to lack of efficacy and potential dangers, especially to patients with coexisting allergic conditions.

*S Afr Med J* 2020;110(8):751-752. <https://doi.org/10.7196/SAMJ.2020.v110i8.14995>

The SARS-CoV-2 virus, which causes the disease known as COVID-19, has been shown to spread via respiratory droplets. Potential infection occurs via close unprotected contact with an infected person who expels respiratory droplets, or via infected surfaces and fomites on to which the virus has landed, followed by hand-to-face contamination.

Central interventions that have been shown to reduce viral spread are social distancing, hand hygiene, mask wearing and regular decontamination of commonly touched surfaces.

A concerning practice of spraying individuals with disinfectant via so-called 'disinfection tunnels' has come to light. This practice involves the spraying of individuals from the public as they walk through a cubicle or tunnel, with a chemical mist of varying composition.

*The World Health Organization has strongly condemned all human spraying in the strongest possible terms,<sup>[1]</sup> as have the Pan American Health Organization<sup>[2]</sup> and the Africa Centres for Disease Control.<sup>[3]</sup> The Allergy Society of South Africa strongly condemns the practice and is particularly concerned about the adverse effects on our patients with asthma, allergic rhinitis, allergic conjunctivitis and eczema.*

The reasons for advising strongly against the practice of human spraying are:

### 1. It is not effective in reducing the spread of the novel coronavirus

- Surface disinfection generally requires 5 - 10 minutes of contact with a surface to be effective.
- The main body parts that transmit the virus, namely the respiratory tract and the hands, are not protected by surface spraying.
- When the person exits the tunnel, the respiratory tract remains infectious if they have the coronavirus, and the hands can rapidly become contaminated again with surface contact, so there is no extended benefit.

### 2. It is potentially dangerous

- Chemicals, often of unknown quality and composition, can result in significant eye and skin irritation. Such chemicals are made for inanimate surfaces, not the human body.<sup>[4,5]</sup>
- With inhalation, chemicals can irritate the respiratory system, and cause bronchospasm and asthma attacks.<sup>[5]</sup> Resultant coughing and respiratory tract damage can actually increase the spread of the virus.
- Chemicals used for disinfection can irritate the digestive tract, causing nausea and/or vomiting.
- Frequent exposure may lead to long-term issues such as occupational lung disease or cancer.

### 3. It is environmentally unfriendly and may disperse the virus

- Environmental contamination with toxic chemicals may occur when chemicals are sprayed using a high-pressure sprayer.
- The uncontrolled spray action could disperse the virus onto the surrounding environment.

### 4. It misdirects resources

- Disinfection tunnels are expensive, driven by false, profit-driven advertising.
- Human spraying can detract from investing in proven simple strategies such as good hand hygiene and proper mask wearing.
- It can give users a false sense of security.

**In summary, disinfection tunnels are INEFFECTIVE and POTENTIALLY DANGEROUS.**

**The Allergy Society of South Africa strongly condemns their use under any circumstances.**

**Declaration.** None.

**Acknowledgements.** Executive Committee of the Allergy Society of South Africa.

**Author contributions.** CLG was responsible for drafting the article. AvN initiated the concept and reviewed the article.

**Funding.** None.

**Conflicts of interest.** None.

1. World Health Organization. Cleaning and disinfection of environmental surfaces in the context of COVID-19. 16 May 2020. <https://www.who.int/publications/i/item/cleaning-and-disinfection-of-environmental-surfaces-inthe-context-of-covid-19> (accessed 29 May 2020).

2. Pan American Health Organization. The use of tunnels and other technologies for disinfection of humans using chemical aspersion or UV-C light. 5 May 2020. <https://iris.paho.org/handle/10665.2/52066> (accessed 29 May 2020).
3. Africa Centres for Disease Control. Position statement: The use of disinfection tunnels or disinfectant spraying of humans. 28 May 2020. <https://africacdc.org/pillar/infection-prevention-and-control/> (accessed 29 May 2020).
4. Mehtar S, Bulabula AN, Nyandemoh H, Jambawai S. Deliberate exposure of humans to chlorine – the aftermath of Ebola in West Africa. *Antimicrob Resist Infect Control* 2016;5:45. <https://doi.org/10.1186/s13756-016-0144-1>
5. Kim JA, Yoon SY, Cho SY, et al. Acute health effects of accidental chlorine gas exposure. *Ann Occup Environ Med* 2014;26:29. <https://doi.org/10.1186/s40557-014-0029-9>

*Accepted 2 June 2020.*