

Using heated tobacco products makes SARS-CoV-2 infection and severe COVID-19 more likely, reports study

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An Osaka Metropolitan University research group found that users of heated tobacco products have significantly higher rates of SARS-CoV-2 infection compared to non-tobacco users. Furthermore, the research group found that among tobacco users, those who used both heated tobacco products and

traditional cigarettes reported the highest incidence of severe illness due to COVID-19. Credit: Osaka Metropolitan University

Heated tobacco products—an alternative to traditional cigarettes, similar to e-cigarettes or vapes—do not burn tobacco leaves, but rather allow users to inhale the vapor produced by heating the tobacco leaves. Users choose heated tobacco products to avoid the smoke and odor of burnt tobacco as well as the expectation that they pose fewer health risks than traditional cigarettes. However, the long-term health effects of heated tobacco products, particularly the new risk of SARS-CoV-2 infection, have not been clarified.

Addressing this concern, a research group led by Associate Professor Kazuhisa Asai from the Osaka Metropolitan University Graduate School of Medicine conducted a study focusing on the relationship between using heated tobacco products and SARS-CoV-2 infection. The findings were published in *Scientific Reports* on February 2, 2023.

The research group investigated the relationship between tobacco use, including heated tobacco products and [traditional cigarettes](#) with SARS-CoV-2 infection and possible exacerbations of COVID-19. They administered an online survey of living conditions in February 2022 to 30,130 participants aged 16–81 years, who were randomly selected from the [general population](#) through an online survey according to a representative distribution, and conducted further [statistical analyses](#).

From their analysis, the research group found that users of heated tobacco products—including both people who use them exclusively or in combination with traditional cigarettes—had significantly higher rates of COVID-19 compared to non-users. Furthermore, among all tobacco users, those who used both heated tobacco products and traditional

cigarettes had the incidence of severe illness—requiring hospitalization or oxygen due to COVID-19.

"This study shows that the use of heated [tobacco products](#) may have an impact on SARS-CoV-2 infections and disease progression. We hope this report will encourage people to think about [tobacco](#) use in the context of the added risks due to coronavirus infection," Professor Asai concluded.

More information: Misako Nishimura et al, Association of combustible cigarettes and heated tobacco products use with SARS-CoV-2 infection and severe COVID-19 in Japan: a JASTIS 2022 cross-sectional study, *Scientific Reports* (2023). [DOI: 10.1038/s41598-023-28006-3](#)

Provided by Osaka Metropolitan University

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