



NICOTINE AND NEW CORONAVIRUS – Organizations sign public note

ACT Health Promotion, the Brazilian Medical Association, the Brazilian Society of Pediatrics, the Brazilian Association for the Study of Alcohol and other Drugs, the Cancer Foundation, the Campaign for Tobacco-Free Kids, and the Brazilian Society of Pulmonology and Phthysiology sign the following note:

A French study¹ suggesting a supposed protective effect of nicotine in combating SARS-CoV-2, the new coronavirus responsible for COVID-19, has been widely reported in the media and on social media. We know that, at the moment, several lines of research are underway to try to understand how the new coronavirus acts and how to fight it. But it is still too early and risky to claim any potential nicotine protective factor for SARS-CoV-2.

Once infected with the new coronavirus, smokers tend to have a worse condition, with more severity and deaths^{2 3}. The discussion about nicotine arose because in some studies conducted in China there appeared to be fewer smokers than expected in hospitalizations by COVID-19. However, it is not clear whether the collection of information about which patients were smokers in these studies was properly performed or whether it is underreported. In Brazil, for example, there is still debate about inserting information about smoking in the notification form about COVID-19, which would be of great importance to more accurately assess the evolution of the disease in smokers, compared to those who do not smoke.

The study on the nicotine in question was also not peer-reviewed and does not refer to approval by any research ethics committee. In addition, it should be noted that at least one of the authors of the study has been funded in the past by the tobacco industry⁴.

Nicotine is a psychoactive drug that causes addiction and serious damage to the cardiovascular system, such as heart attacks and thrombosis⁵. Smokers are also more likely to develop pulmonary and vascular diseases, systems that are very affected in those infected with COVID-19^{6 7 8}. Thus, the hypothesis of using nicotine in the prevention or treatment of COVID-19 may bring the risk of causing more damage to the patient, without counting the installation of a new disease - smoking. And smoking, whether through the use of cigarettes, electronic smoking devices or similar, should never be recommended or suggested in the fight against COVID-19.

The organizations that sign this note defend that scientific studies be carried out, without conflicts of interest, to face this serious pandemic that is plaguing the world. However, in the eagerness to find out how to prevent infection by the new coronavirus or find an effective treatment, the most different studies are sometimes disseminated in a hasty manner, confusing the population. Caution and responsibility are fundamental.

We hope to quickly reach an effective understanding of the agent of this pandemic, but reliable studies and consistent evidence are needed. And both exist to reinforce the recommendation for the population to avoid smoking initiation or to seek cessation, if already smokers.

¹ <https://www.who.int/news-room/feature-stories/nicotine-protective-effect>

² <https://rhc.inca.gov.br/revista/index.php/revista/article/view/974/587>

³ <https://www.medrxiv.org/content/10.1101/2020.04.13.20063663v1>

⁴ https://www.lemonde.fr/sciences/article/2012/05/31/guerre-du-tabac-la-bataille-de-la-nicotine_1710837_1650684.html

⁵ <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>

⁶ <https://www.preprints.org/manuscript/202004.0204/v1>

⁷ Maniatis NA, Orfanos SE. The endothelium in acute lung injury/acute respiratory distress syndrome. *Curr Opin Crit Care*. fevereiro de 2008;14(1):22–30.

⁸ Cai H. Sex difference and smoking predisposition in patients with COVID-19. *The Lancet Respiratory Medicine*. 1º de abril de 2020;8(4):e20.