

# Meta-analysis links smoking to COVID-19 disease progression

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sensitivity analysis of five studies of current smokers versus never smokers, the results were similar (odds ratio, 1.91), with no evidence of significant heterogeneity ( $I^2 = 53.5$  percent) or publication bias (Harbord's  $P = 0.382$ ; Peters'  $P = 0.512$ ).

"Smoking is associated with COVID-19 disease progression," the authors write. "Physicians and public health professionals should collect data on smoking and, given the pulmonary effects of e-cigarettes, [e-cigarette use](#) as part of clinical assessments and add smoking (and, to be health protective, e-cigarette) cessation to the list of practices to blunt the COVID-19 pandemic."

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(HealthDay)—Smokers have an increased likelihood of COVID-19 disease progression, according to research published online May 13 in *Nicotine & Tobacco Research*.

Roengrudee Patanavanich, M.D., Ph.D., and Stanton A. Glantz, Ph.D., from the University of California San Francisco, reviewed and summarized 19 papers presenting data on the link between [smoking](#) and severity of COVID-19.

The meta-analysis included 11,590 COVID-19 patients, 18.4 percent of whom experienced [disease progression](#) and 6.3 percent with a history of smoking. The researchers found that 29.8 versus 17.6 percent of patients with a history of smoking versus nonsmoking patients experienced disease progression. In the meta-analysis, an association was noted between smoking and COVID-19 progression (odds ratio, 1.91), with moderate heterogeneity among the studies ( $I^2 = 38$  percent) and no significant evidence of publication bias (Harbord's  $P = 0.813$ ; Peters'  $P = 0.941$ ). In a

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