

Tobacco use and COVID-19: Early Understanding and Warning Signs

At a time when various elements of health care systems are being severely tested by the pandemic, it is important to understand the intersection of tobacco use and COVID-19. It is well understood that smoking suppresses immune functions and triggers inflammation. Early vaping research suggests the same.^{1,2} Literature also shows that smokers and vapers are at higher risk of contracting viruses that spread similarly to Coronavirus,^{3,4} due to multiple factors, including the increased frequency of hand to face movement, the main mode of transmission for the novel virus. Smokers and e-cigarette users are at increased risk of developing respiratory infections and chronic lung conditions associated with more severe cases of COVID-19.^{5,6}

Persons with chronic respiratory disease are vulnerable to severe consequences of COVID-19. Early reports from China found a 6.3% fatality rate in people with chronic respiratory disease compared to 2.3% in all patients with the virus.⁷ Early research also demonstrates smokers are more susceptible to⁸ and at greater risk of developing severe illness from COVID-19.⁹ The odds of disease progressing (including to death) was 14 times higher for those with a history of smoking versus nonsmokers, as seen in one study of patients hospitalized for two weeks with COVID-19 associated pneumonia.¹⁰ Additionally, 12.4% of smokers who had confirmed COVID-19 required intensive care or died compared to 4.7% of individuals with confirmed COVID-19 who had never smoked.¹¹

Youth and young adult tobacco use is at record highs for the past 30 years, so it is important for this demographic to understand their vulnerability to the virus. The Center for Disease Control reports 38% of patients hospitalized for Coronavirus have been younger adults (20 – 54 years of age).¹² With New York struggling to provide adequately for its residents and as the current global epicenter for the virus, the New York State Academy of Family Physicians is now calling for a ban on sales of tobacco products in the state.¹³

Tobacco use treatment experts are encouraging providers to include cessation services as a part of the essential care to patients during this time¹⁴ and for healthcare systems to strictly enforce tobacco-free campus policies for patients and visitors on hospital grounds.¹⁵ Clear guidance is being echoed throughout the healthcare industry: *make quitting a priority for patients who smoke*.^{16,17} The Missouri Tobacco Control Research Center at the University of Missouri urges all Missouri health systems to provide clinical and community support in this process. Risk mitigation is especially essential now to prevent avoidable strain on healthcare systems. Our recommendation is for physicians to advise quitting and prescribe FDA approved pharmacotherapies to all patients who use tobacco products.

Public health recommendations: wash hands, social distancing, and quit smoking.

Missouri Tobacco Cessation Resources

Missouri Tobacco Quitline

- Offers telephone and online counseling with a trained quit coach and resource materials
- Available 24/7
- (800) QUIT-NOW or visit www.quitnow.net/missouri

SmokeFree TXT

- Offers text message support on quitting.
- www.smokefree.gov/smokefreetxt

American Cancer Society Quitline

- (800) 227-2345
- <https://www.cancer.org/healthy/stay-away-from-tobacco/guide-quit-smoking.html>

American Lung Association

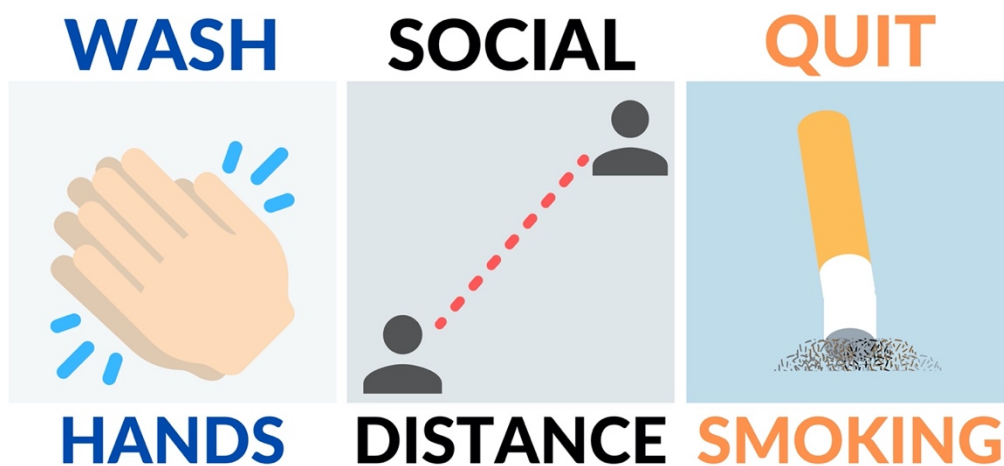
- (800) LUNGUSA
- <https://www.lung.org/support-community/lung-helpline-and-tobacco-quitline>

This is Quitting

- For Teens and Young Adults: Text DITCHJUUL to 88709
- <https://truthinitiative.org/thisisquitting>

BecomeAnEx

- <https://www.becomeanex.org>
- 24/7 Support including counseling, quit plan, and NRT



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- 1 Gotts – What are respiratory effects of e-cigarettes? <https://doi.org/10.1136/bmj.l5275>
 - 2 King – The EVALI and Youth Vaping Epidemic – Implications for Public Health
<https://www.nejm.org/doi/full/10.1056/NEJMp1916171>
 - 3 Groskreutz – Cigarette smoke alters respiratory syncytial virus-induced apoptosis and replication
<https://doi.org/10.1165/rcmb.2008-0131OC>
 - 4 Godoy – Smoking may increase the risk of influenza hospitalization and reduce influenza vaccine effectiveness in the elderly <https://www.ncbi.nlm.nih.gov/pubmed/29020390>
 - 5 Cohen – Smoking, alcohol consumption, and susceptibility to the common cold
<https://www.ncbi.nlm.nih.gov/pubmed/8363004>
 - 6 Volkow - COVID-19: Potential Implications for Individuals with Substance Use Disorders:
<https://www.drugabuse.gov/about-nida/noras-blog/2020/03/covid-19-potential-implications-individuals-substance-use-disorders>
 - 7 Guan – Comorbidity and its impact on 1,590 patients with COVID-19 in China: A Nationwide Analysis
<https://doi.org/10.1101/2020.02.25.20027664>
 - 8 Cai – Tobacco use disparity in Gene Expression of ACE2, the Receptor of 2019-nCov
<https://www.preprints.org/manuscript/202002.0051/v1>
 - 9 Vardavas - COVID-19 and smoking: A systematic review of the evidence
<http://www.tobaccoinduceddiseases.org/COVID-19-and-smoking-A-systematic-review-of-the-evidence,119324,0,2.html>
 - 10 Wei - Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease
https://journals.lww.com/cmj/Abstract/publishahead/Analysis_of_factors_associated_with_disease.99363.aspx
 - 11 (BMJ)
 - 12 CDC - Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) — United States, February 12–March 16, 2020
https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm?s_cid=mm6912e2_w#suggestedcitation
 - 13 New York State Academy of Family Physicians - Call for a Ban on the Sale of All Tobacco/Vaping Products During Pandemic Period, Statement on Link Between Tobacco Use and COVID-19 <http://www.nysafp.org/News/What-s-New/COVID-19-Resources>
 - 14 Truth Initiative – COVID-19: the connection to smoking and vaping, and the resources for quitting
https://truthinitiative.org/research-resources/quitting-smoking-vaping/covid-19-connection-smoking-and-vaping-and-resources-for-quitting?utm_source=Truth+Initiative+Mailing+List&utm_campaign=eac677fe2f-Newsletter_191_2020_03_26&utm_medium=email&utm_term=0_c91fd8a5c5-eac677fe2f-70885473
 - 15 ANRF - Respiratory Risk Factors and COVID-19: <https://no-smoke.org/respiratory-risk-factors-covid-19>
 - 16 California Tobacco Control Program – Protect yourself from COVID-19: Stop smoking and vaping now
<https://tobaccofreeca.com/health/covid-19-stop-smoking-and-vaping/>
 - 17 Glantz - Reduce your risk of serious lung disease caused by corona virus by quitting smoking and vaping:
<https://tobacco.ucsf.edu/reduce-your-risk-serious-lung-disease-caused-corona-virus-quitting-smoking-and-vaping>

