### RESPIRATORY HEALTH ASSOCIATION®

## Secondhand Smoke and COVID-19



As with any lung illness, smoking increases the risk of negative health effects among those infected with COVID-19. Emerging research suggests that smokers may be at an increased risk of contracting COVID-19. They are also more likely to experience serious complications if they become infected.

## What Is Secondhand Smoke?





Secondhand smoke or, environmental tobacco smoke, is the mixture of fine particles and gases. It also includes the smoke that has been exhaled by the person smoking. There is no safe level of exposure to secondhand smoke.

ACF2

## What Are the Effects?

Exposure to secondhand smoke has been shown to:

Trigger respiratory symptoms



Weaken immune system

#### Lower antibody counts

This has important implications during the COVID-19 pandemic, as individuals exposed to secondhand smoke may experience more severe adverse health outcomes related to COVID-19.

### How Does It Relate to COVID-19?

Smokers and those frequently exposed to secondhand smoke have higher levels of ACE2, a lung enzyme. Emerging research suggests that COVID-19 can more easily infect those with higher levels of ACE2 and cause more severe illness.



# Secondhand Smoke and COVID-19



## How Does COVID-19 Affect the Lungs?

- Once the virus enters the body, it makes its way to the lungs which inflames the mucous membranes of the lungs.

The air sacs of the lungs must work much harder to get oxygen to the blood and out to the rest of the body.

Poor oxygen flow and swelling from the inflammation can lead to fluid and dead cell build-up in the lungs, which can lead to trouble breathing and, in some cases, pneumonia.



## What Can You Do?



Avoid secondhand smoke exposure whenever possible.



Advocate for smoke-free policies if you live in multi-unit housing.



If you are a landlord or property manager, enact a smoke-free policy.



If you are a smoker, consider quitting to reduce secondhand smoke exposure to others in your home.



Set rules for your home. Ask guests to refrain from smoking while in your home.