

# California Thoracic Society (CTS) Patient Education Staying Healthy During Wildfires

Neeta Thakur, MD, University of California San Francisco Asha Devereaux, MD, MPH, Chair CTS Clinician Practice Committee Shazia Jamil, MD, Chair CTS Education Committee

## Wildfires are increasing.

Why?



We are in a drought.

This leads to less ground water → drier forests.



We are experiencing more extreme heat days
Compared to 50 years ago, we have 10x more extreme heat days.



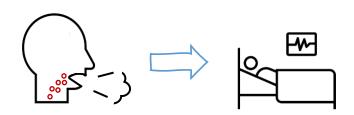
Snowcaps are melting early.

This leads to vegetation drying out before fire season and serves as future kindling.

## Wildfires impact your breathing.



Particulate matter from wildfires gets into your lungs (even if you don't see or smell smoke).



This may make you short of breath and cause flair ups of your respiratory conditions. Wildfire smoke also increases risk of heart attacks and stroke.

## Tips to protect yourself.





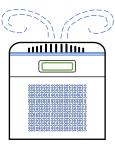
Stay indoors and keep windows & doors closed.



Reduce activities that increase indoor air pollutants.



Keep the room clean. Wipe surfaces, but do not vacuum (puts smoke particles back in the air).

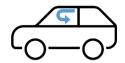


Use an air filtration device (HVAC or portable device). Make sure you have clean/new filters



#### Keep medications

handy. Take your maintenance ("controller") medications. If take a inhaler sometimes, ask your provider about starting before fire season. Also ask about a Rx for a steroid burst to have as needed.

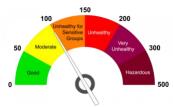


## When traveling, recirculate the air.

Staying home is best. In need to travel, close windows, and recirculate the air.



Respirators (e.g., N95) can reduce exposure. Need to have the right type and fit. Review how to use properly here.



Check the <u>Air</u> <u>Quality Index</u> in

**your area.** Considering evacuation if making your breathing worse.

## Prepare in advance.



Emergency Medical Equipment. Have back-up oxygen e-tanks available (more than 1). Make sure back-up batteries are in working order and fully charged for all devices (portable oxygen concentrators, nebulizer, CPAP/BiPAP machines).





Pack an evacuation bag. This should include a week's worth of medications (pills, inhalers, nebulizers), oxygen e-tanks, batteries, face masks (N95 or equivalent). Other essentials to pack are available <a href="here">here</a>.

#### More on air filtration

#### Portable Filtration Devices

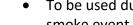
#### **General Tips**

- Ensure can filter small particles (MERV≥13); HEPA filters meet this criterion!
- Great for cleaning a single room.
- Size appropriately for the room (width x length x height). Aim for 2 – 5 air changes per hour.
- Do not use air cleaners that produce ozone ("super oxygenators", deionizers).

Make sure air is not recycled from outside.

### **HVAC Systems**

- Set to recirculate, close the outdoor intake damper.
- HVAC with filters, set to continuous operation. Ensure filter is MERV 13 or higher



**DIY Filter Box Fans** 

Low-cost option

- To be used during most intense wildfire smoke event periods
- The CTS does not recommend the routine use of DIY Filter Box Fans as a permanent solution.
- More information about how to make and safely use available here.

#### **Air Conditioners**

- Do not use window air conditioner if cannot close outdoor damper
- Portable air conditioner with a single hose - do not use if vents outside
- Portable air conditioner with two hoses - ok to use, just ensure seals are tight

