

# EARTH

VIRTUAL LUNCH & LEARNS



# MONTH

OPEN TO ALL • RAFFLE PRIZES

Wednesday, April 13, 2022  
12pm - 1pm

**Breathe Easy: DIY Air Filter Demonstration**



# Healthy Homes and Communities

## Examples of our work

### **Air pollution**

- Administer wood smoke curtailment ordinance
- Wildfire response

### **Climate change**

- Regional Climate and Health Monitoring Report
- Extreme heat response

### **Portland Harbor Superfund Cleanup**

- Health education on toxic fish consumption
- Training Community Health Workers

### **Lead poisoning**

- Investigation/case management
- Screening for low income kids and pregnant moms

### **Healthy homes**

- Advice on mold, bedbugs, and radon

### **Built environment**

- REACH Transportation Safety Report
- Mapping environmental justice indicators



# Clean air for everyone, all the time, everywhere.



# Indoor Air Quality

**90%** of our lives  
spent indoors



**2-5x** More pollution  
indoors than  
outdoors



Image credit: <https://www.insulwise.com/indoor-air-quality/>



# Indoor Air Pollution Sources & Activities



Powered by  **Poll Everywhere**

Start the presentation to see live content. For screen share software, share the entire screen. Get help at [pollev.com/app](https://pollev.com/app)



## COMMON INDOOR AIR POLLUTANTS



### AIRBORNE PARTICLES

Dust, dead skin, pollen, vehicle exhaust, pet dander, dust mite feces, smoke, hair, plant matter



### HOUSE ODORS & GASSES

Cooking odors, pet smells, cigarettes, sink or drain smells, trash odors, "stale" air



### MICROBES & GERMS

Bacteria, Mold, Yeasts, mites, viruses, fungus, toxins



### VOLATILE ORGANIC COMPOUNDS (VOCs)

image credit: Paschal

Paints, glues & varnishes, adhesives, furniture & office equipment, cleaning supplies, wood preservatives, carpet emissions, chemicals



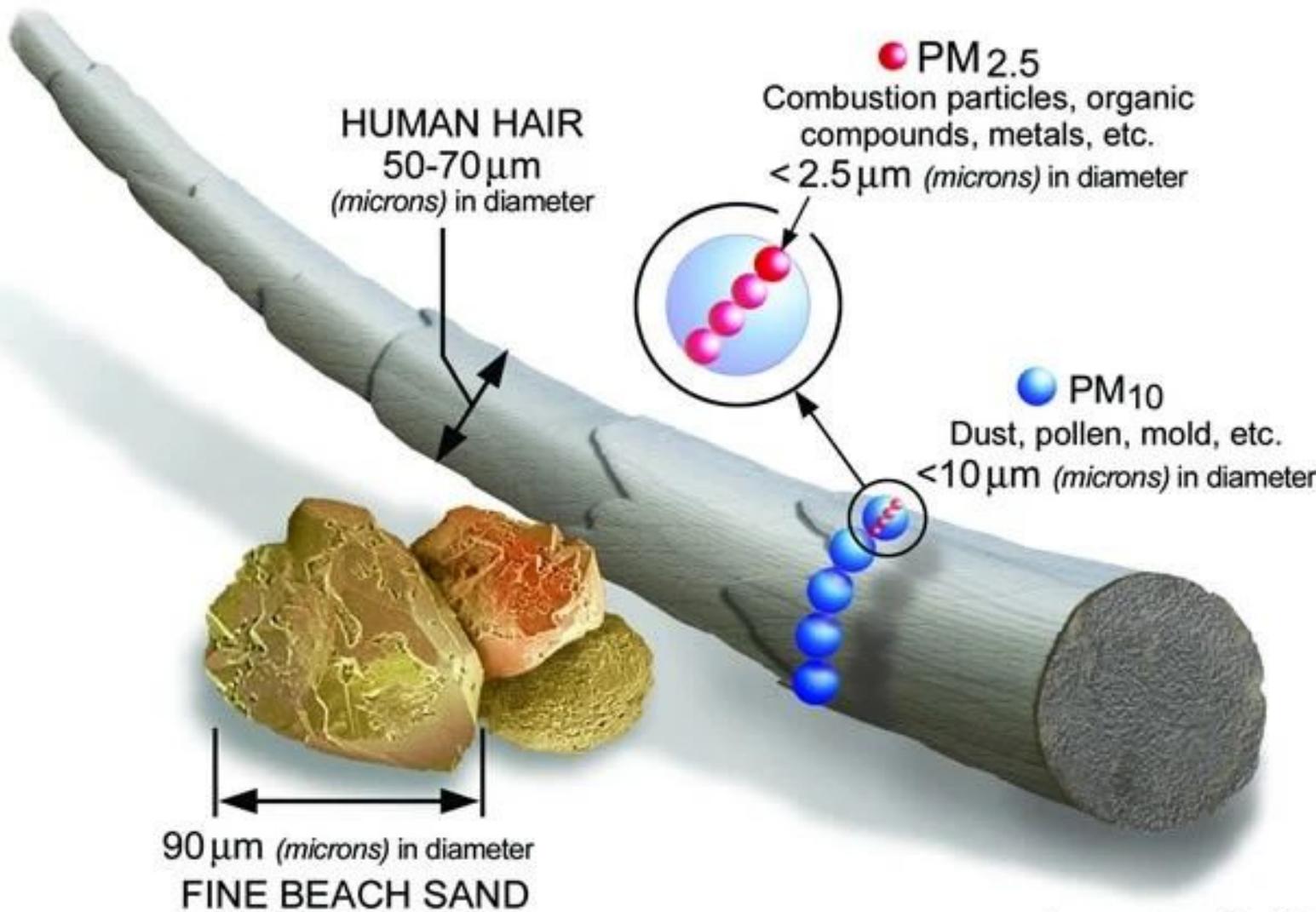


Image courtesy of the U.S. EPA



Air cleaners pull in dirty air, trap tiny harmful particles, and blow out cleaner air.

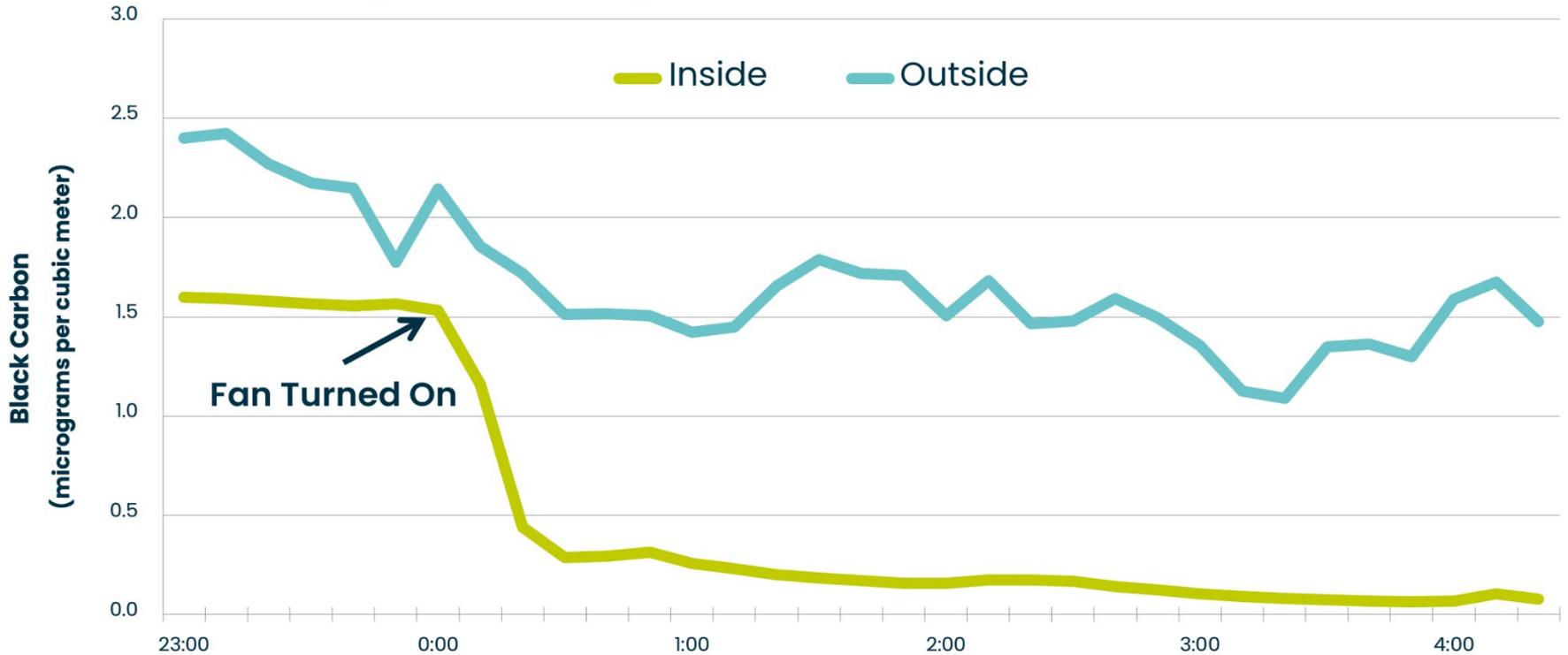


Image Source: <https://www.nytimes.com/wirecutter/reviews/best-air-purifier/>



# Filter Fan Performance

Filtering black carbon during wildfire smoke event with windows and doors closed



Source: Puget Sound Clean Air Agency



# You can use your air cleaner every day.

It is especially important to turn it ON if there is:



Smoke from fires



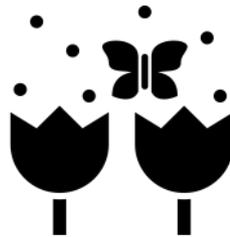
Cleaning dust



Airborne virus particles



Frying



High Pollen



Smoking



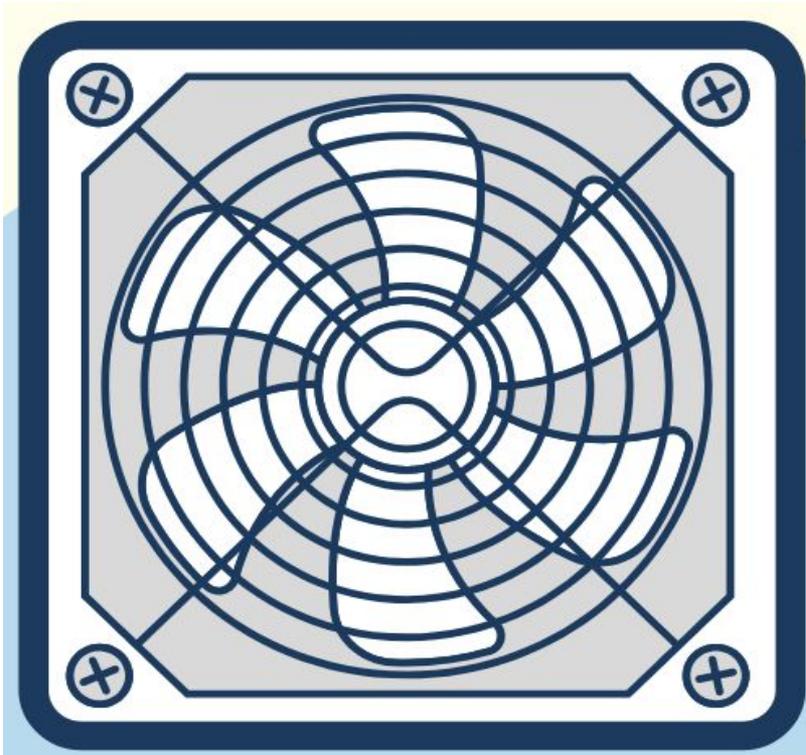
Burning wood, candles or incense



Idling cars or trucks



# DEMO

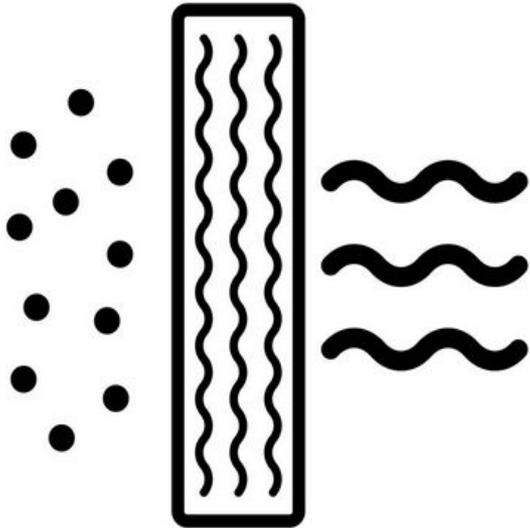


## What you need:

1. Box fan (year 2012 or newer)
2. A furnace filter (20" x 20", rated MERV 13 or FPR 10 or MPR 1500-1900)
3. Tape (any kind!), bungee, or even zip ties



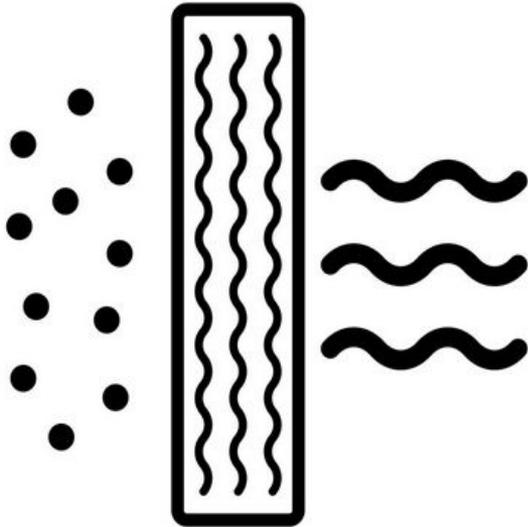
## TIPS and TRICKS



- Place the unit in the room you spend the most time in
- Use in a smaller room, or make two for larger spaces
- Place inside with windows and doors closed
- Run for at least 10-15 minutes
- Place away from the wall or any object and point it towards the middle of the room



# SAFETY REMINDERS



- Position the filter fan where no one will trip over it.
- For electrical safety, do not use in the bathroom or near water
- Maintain the filters, usually every 3-6 months or when they look brown/dirty.
- Lower settings may make less noise, but the highest will be the most effective and should be used during high pollution events
- Turn the fan off if unattended
- If the indoor temp is above 95 degrees, do not use this as a fan.



- 
1. Track air quality and fires
  2. Keep Smoke Out
  3. Use an air cleaner/air purifier



# Track outdoor air quality and fires

## Local air quality:

<https://oraqi.deq.state.or.us/home/map>,

or

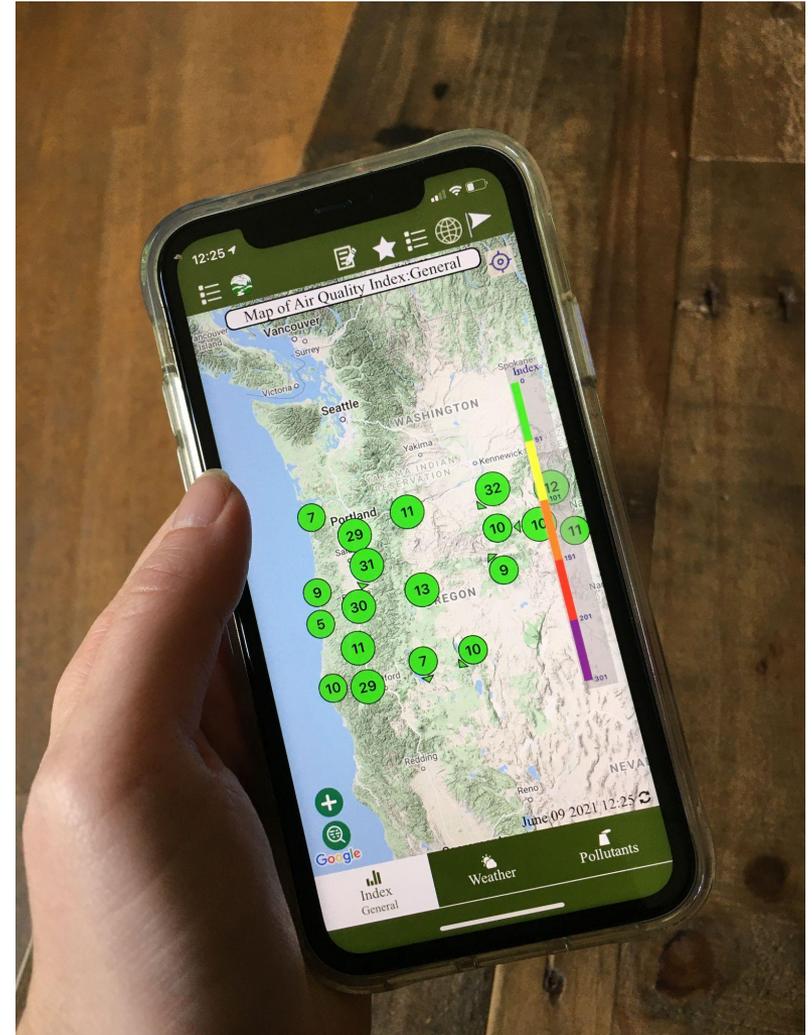
download Oregon Air App on your phone

## Air and fires anywhere:

<https://fire.airnow.gov/>

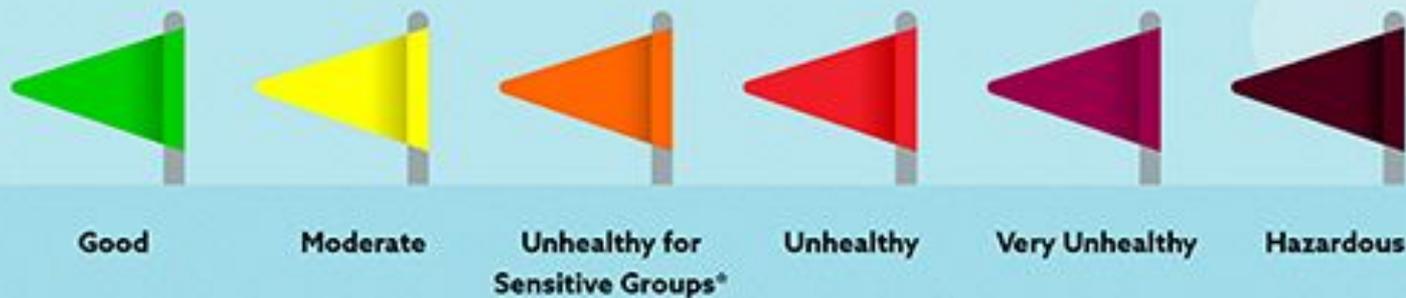
## Oregon Smoke Blog:

<https://oregonsmoke.blogspot.com/>



# How do I get information about air quality where I live?

Each day, you can find out what the air quality is like by checking the Air Quality Index (AQI) for where you live. The AQI tells you when high levels of air pollution are predicted for the day. You can use that information to plan for safe and healthy physical activity.



## Keep smoke out

1. Look for gaps in your home that might be letting in outdoor air. Have materials ready to seal those off during a big smoke event (use tape, rolled towels, or weatherization plastic)
2. Clean or replace air filters if you have AC or an air cleaner.
3. Plan for a clean air room at home to protect from wildfire smoke. Add some games and snacks to this room. This is where you will place your air cleaner.
4. Learn about masks. An “N95” respirator, properly worn, can offer some protection if properly fitted. Masks and face coverings help reduce transmission of COVID-19, but do not protect against smoke.
5. Have several day supply of medications and groceries that don’t require cooking.
6. Make a plan, in case you [need to evacuate](#) because of smoke or wildfire risk.



# Have your air cleaner ready

**USING YOUR AIR CLEANER**

Air cleaners pull in dirty air, trap tiny harmful particles, and blow out cleaner air. An air cleaner can help everyone breathe cleaner air inside and is especially helpful for babies, the elderly, pregnant people and people with asthma, allergies, or other breathing difficulties.

**You can use your air cleaner every day. It is especially important to turn it ON if there is:**

- Smoke from fires
- Burning wood, candles or incense
- Frying
- High Pollen
- Cleaning dust
- Idling cars or trucks

**HELPFUL TIPS:**

- Place the air cleaner in the room you spend the most time in.
- Follow the manufacturer's instructions and work as well in a large room if it is designed for that.

**使用您的空气净化器**

空气净化器吸入脏空气，捕获微小的有害物质，并吹出更清洁的空气。空气净化器可以帮助每个人在室内呼吸到更清洁的空气，对婴儿、老人、孕妇和有哮喘、过敏或其他呼吸困难的人特别有帮助。

**您可以每天使用空气净化器。在出现以下状况时，打开它尤其重要：**

- 火灾产生的烟雾
- 煎炸
- 燃烧木材、蜡烛或香
- 高花粉
- 清洁灰尘
- 怠速的汽车或卡车

**有用的提示：**

- 将空气净化器放在最常呆的房间，比如卧室。
- 遵循制造商的说明和房间大小要求。如果空气净化器是针对一般卧室大小设计的，那么在大房间里的效果就不好。
- 放在室内，关闭门窗。
- 放在离墙或任何物体几英寸远的地方。
- 放在一个月或两个月清洗一次的表面上。净化器顶部不要放置任何东西。
- 选择每六个月或更长时间清洗一次的型号。请进行过滤器维护。
- 选择噪音水平低的型号。但最高的气流设置最有效。
- 将气流设置为最低可能会产生较小的噪音，但最高的气流设置最有效。
- 应在高污染环境中使用。

**您可以采取的其他措施**

香港公共卫生建议，在 [www.dhs.gov](http://www.dhs.gov) 了解更多信息。查看有关空气质量的信息。了解更多关于 [www.epa.gov/gov-air-quality-usa](http://www.epa.gov/gov-air-quality-usa) 的空气质量问题。了解 [www.aircure.gov/air-quality-and-health](http://www.aircure.gov/air-quality-and-health) 的空气质量问题。

**CONSEJOS ÚTILES:**

- Coloque el purificador de aire en la habitación donde más tiempo pase, por ejemplo el dormitorio.
- Siga las instrucciones del fabricante y el tamaño de la habitación. Un purificador de aire no funcionará tan bien en una habitación grande si está diseñado para una habitación de tamaño típico.
- Coloque el purificador de aire a unos centímetros de las ventanas y las puertas cerradas.
- Coloque el purificador de aire sobre una superficie plana sin apoyar nada sobre la unidad.
- Limpien los filtros de los filtros, generalmente cada 6 meses o cuando estén sucios. Esto conservará su purificador de aire y mantendrá la factura más baja.
- Un flujo de aire bajo hará menos ruido, pero cuanto más fuerte sea el flujo de aire, más eficaz será y se debe utilizar durante eventos de contaminación alta.

**CÓMO USAR SU PURIFICADOR DE AIRE**

Los purificadores de aire absorben el aire sucio, retienen las pequeñas partículas nocivas y expulsan aire más limpio. Un purificador de aire puede ayudar a respirar aire más limpio en ambientes cerrados y es especialmente útil para los bebés, las personas mayores, las mujeres embarazadas y las personas que tienen asma, alergia y otras dificultades para respirar.

**El purificador de aire se puede usar todos los días. Sobre todo, es importante encenderlo en caso de:**

- Humo de estufas
- Quema de madera, velas o incensos
- Fritura
- Mucho polen
- Polvero por limpieza
- Coches o camiones en ralentí
- Partículas de virus en el aire
- Humo de tabaco

**OTRAS MEDIDAS QUE PUEDE TOMAR**

Siga las recomendaciones de salud pública y verifique la calidad del aire local en [www.airnow.gov](http://www.airnow.gov). Obtenga más información sobre la contaminación del aire en [www.epa.gov/gov-air-quality-usa](http://www.epa.gov/gov-air-quality-usa). Obtenga más información sobre la contaminación del aire en [www.aircure.gov/air-quality-usa](http://www.aircure.gov/air-quality-usa).



Ozone free air cleaner list:

[//ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices](http://ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices)



[multco.us/wildfiresmoke](http://multco.us/wildfiresmoke)

## Summary

1. **Reduce air polluting activities (indoor & outdoor)**
2. **Check the AQI daily**
3. **Start preparing today**
4. **Purchase or build an air cleaner**

[multco.us/wildfiresmoke](https://multco.us/wildfiresmoke)

