Montana

WILDFIRE SMOKE RESPONSE TOOLKIT

Social Media Graphics

Press Releases

Email Templates

Response Checklists

Resources for:

EMERGENCY MANAGEMENT
HEALTH PROFESSIONALS
BUSINESSES
SCHOOLS
INDIVIDUALS AND HOUSEHOLDS

MONTANA DPHHS

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

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Introduction

The Wildfire Smoke Response Toolkit is intended to provide wildfire smoke responders with the information they need to promote a healthy living environment, manage the health risks of more vulnerable populations and communicate with community members about the dangers (both indoors and outdoors) of wildfire smoke.

All children ages 0-17, women who are pregnant, and senior citizens are considered to be more sensitive to wildfire smoke. Those most at risk, however, are younger children (who are more active and take more breaths throughout the day), those with existing lung or heart conditions, and those who spend more time outdoors. Please note that there are additional resources for these populations in this document.

The toolkit provides:

- Sample press releases and public service announcements
- Social media posts
- Information about obtaining more air monitors for your community
- Activity guidelines based on air quality
- Informational flyers
- Checklists for individuals, businesses, community buildings and schools about what to do during a wildfire smoke event.
- Translated informational materials

If there are additional materials that would be helpful to you, please email AirQuality@mt.gov with your suggestions.

Resources for Emergency Management and Health Professionals

- **Sample Wildfire Smoke Public Service Announcement***
- **Sample Wildfire Smoke Press Release**
- **Social Media Posts***
  - *DPHHS Branded Images*
  - *Add Your Own Brand to Images**
  - *Accompanying Text with Images**
- **Information about the PurpleAir Monitors in Schools Project**
  (an avenue to get more outdoor air monitors for your community)
- **Outdoor Activities Guidelines based on Air Quality***
- **Wildfire Smoke and Your Health Flyer**
- **Most Vulnerable Populations Flyer**
- **Checklists for General Public****
- **Checklists for Small Businesses and Community Buildings**
- **Wildfire and Employee Health Flyer**
- **Information for Schools**
- **Translated Materials***

***Translated Materials: Available in Other Language**
***Checklists May Also Be Appropriate for Small Businesses**

PublicHealth IN THE 406

MONTANA DPHHS

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Public Service Announcements

WILDFIRE SMOKE WARNING
PUBLIC SERVICE ANNOUNCEMENT

Unhealthy levels of wildfire smoke are expected in the following areas:

[XXXCountyXXXX]
[XXXCountyXXXX]

Areas of smoke are expected at [location] today.

Wildfire smoke has harmful chemicals that can affect your health. It can cause eye and throat irritation, coughing, and difficulty breathing. ***People who are at greatest risk of experiencing symptoms due to smoke include those with chronic lung disease (such as asthma) and/or heart disease, young children, pregnant women, and older adults.*** Even healthy adults can be affected by smoke. Seek medical help if you have symptoms that worsen or become severe.

If you smell or see smoke, take these steps to protect your health:

- Minimize or stop outdoor activities, especially exercise.
- Stay indoors with windows and doors closed.
    - Do not run any fans that bring smoky outdoor air inside
    - Run your air-conditioner only if it does not bring in smoke from outdoors.
    - Change the standard air-conditioner filter to a medium or high efficiency filter.
    - If you have a wall- unit or window-unit air conditioner, set it to “re-circulate.”
    - Do not smoke, fry food, or do other things that will create indoor air pollution.
- If you have any chronic lung disease (including asthma) or heart disease, closely monitor your health and contact your doctor immediately if you have symptoms that worsen, including repeated coughing, shortness of breath or difficulty breathing, wheezing, chest tightness or pain, palpitations, nausea, unusual fatigue or lightheadedness. Consider going to an emergency shelter or leaving the area until smoke conditions improve.

If you do <u>not</u> have air conditioning, take these additional steps to protect yourself and your family from heat exhaustion, which can be especially dangerous for infants, children, the elderly, and people with chronic disease.

- Lower body temperatures by using cold compresses, misting, and taking cool showers, baths or sponge baths.
- Drink plenty of fluids. Don’t wait until you’re thirsty to drink. However, if your doctor has told you to limit the amount you drink or you are taking water pills, ask your doctor how much you should drink during the heat.
- Avoid drinks with alcohol or large amounts of sugar, as these can promote dehydration.

- Consider moving to location that has air conditioning.
- Do not exercise or do physical activity.
- Wear light-weight and light-colored clothing.
- Watch for signs of heat exhaustion, including fatigue, nausea, headache, and vomiting, and contact your doctor immediately if these occur.

Stayed tuned for additional air quality emergency announcements

Contact your doctor to discuss what you should do if smoke becomes worse in your area, especially if you have lung disease (including asthma), heart disease, are elderly, pregnant, or have children in your home.

For further information, please contact your local county health department or visit the Montana Department of Health and Human Services at airquality.mt.gov.

Sample Press Releases

Sample Press Release #1

CONTACT: [Name]

[County] County Health Department

Phone [(XXX) XXX-XXXX]

Email [email address]

High Temperatures and Smoky Air Could Cause Health Problems

[City, State] – County public health officials urge people across the state to take precautions as temperatures and air quality reach potentially unhealthy levels.

The National Weather Service is predicting weather that could bring prolonged wildfire smoke exposure to communities in the [region affected] area. Smoke levels can rise and fall depending on weather factors including wind direction.

“The combination of high temperatures and wildfire smoke in the [affected] area may increase the risk of illness especially for older adults, young children, and people with asthma, respiratory, or heart conditions,” said [Health Officer, position].

Public health officials urge all Montanans to take the following precautions to avoid health problems during hot, smoky conditions.

- Reduce the amount of time spent outdoors. This can usually provide some protection, especially in a tightly closed, air-conditioned house in which the air conditioner can be set to re-circulate air instead of bringing in outdoor air.
- Reduce the amount of time engaged in vigorous outdoor physical activity. This can be an important and effective strategy to decrease exposure to inhaled air pollutants and minimize health risks during a smoke event.
- Reduce other sources of indoor air pollution such as burning cigarettes and candles; using gas, propane, and wood burning stoves and furnaces; cooking; and vacuuming.
- Individuals with heart disease or lung diseases such as asthma should follow their health care providers’ advice about prevention and treatment of symptoms.

For more information about your community’s air quality, visit the EPA's Fire and Smoke map

or

For air quality advisories from the Montana Department of Environmental Quality, visit todaysair.mtdeq.us.

Sample Press Release #2

CONTACT: [Name]

[County] County Health Department

Phone [(XXX) XXX-XXXX]

Email [email address]

Indoor Air Quality after the [Insert Name] Wildfire

[City, State] – With the immediate danger from the [insert name] wildfire behind us, county public health officials urge residents near the fire zone to take precautions as air quality levels could still be affected.

If your home or neighborhood was affected by wildfire, clean-up work may expose you to ash and other products of a fire that may be harmful. Residents can take the following steps to protect their health from potential health and safety issues during clean-up and re-occupancy.

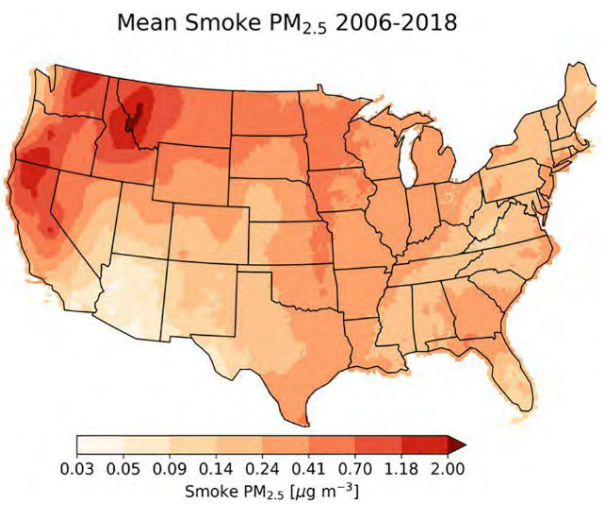
- Stay inside. Limit outdoor time of children and pets. Do not let them play around burned structures.
- Keep windows and doors shut.
- Avoid stirring up or sifting through ash as much as you can. Wet all ash and debris thoroughly before packing inside a 6mm plastic sheet liner.
- Clean and replace filters on air conditioning units and furnaces.
- Stay hydrated. Be aware of high heat if your home is not air conditioned.

For information about your community's air quality, visit the EPA's Fire and Smoke Map.

For air quality advisories from the Montana Department of Environmental Quality: todaysair.mtdeq.us.

PurpleAirs in Schools Project

Free Air Sensors for your school to monitor Montana's air pollutant of concern: Particulate Matter ($PM_{2.5}$)



Plot from O'Dell et al. 2021

Significance of Smoke Impacts in Montana

- Montanans are subjected to some of the highest concentrations of smoke-derived $PM_{2.5}$ in the United States.
- Montana represents a high outlier for percentage of annual mortalities attributed to smoke exposure.
- Wildfires and smoke-attributed $PM_{2.5}$ are expected to increase due to intensifying drought, warming due to climate change and forests heavily over-burdened with wildland fuels.
- Wildfire smoke can have negative health effects on students participating in back-to-school extracurricular activities such as outdoor sport practices and events.

We aim to empower all Montanans, including those living in our most rural and underserved communities, with knowledge and air quality data currently unavailable to them.

School and Student Benefits

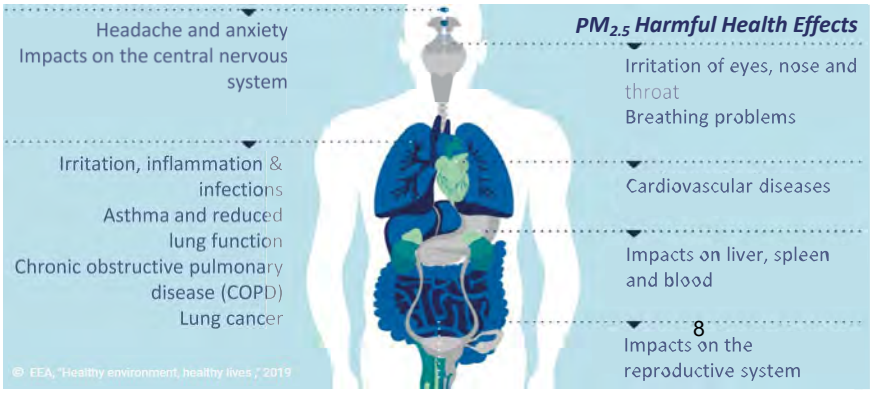
1. Inform decision-making regarding the health and safety of students and athletes during poor air quality events.
   - For example, it can be difficult to decide whether it is safe to practice sports outside especially if the closest air monitor is a few towns away!
2. Improve preparedness for your school and community ahead of poor air quality events especially during fire season.
3. Give teachers, students, and parents real-time and historical data to learn about local air quality issues.
   - Provides opportunities for students to interact with real-world data and investigate the existent threat of smoke.
   - Build student engagement in the fields of science, data and web-based technologies, and environmental health.
4. Ensure future generations have access to local air quality information and awareness of public health risks.

Armed with air quality data and knowledge about the risks of smoke, Montanans can reduce their exposure to, and health effects associated with, smoke and $PM_{2.5}$

Requirements

- Install indoor and outdoor air quality sensors and connect them to the school's wifi.
  - Indoor sensor installed in science teacher's classroom.
  - Outdoor sensor installed anywhere there is power and good wifi connection.
- PurpleAir $PM_{2.5}$ sensors are about the size of a grapefruit and simple to install.
  - The equipment along with guidance and continuous support will be provided.
- PurpleAir sensors are reliable enough to meet the needs of individuals, schools, and organizations for public health decision-making.

*There are **no** reporting requirements attached to this opportunity.



PurpleAirs in Schools Project

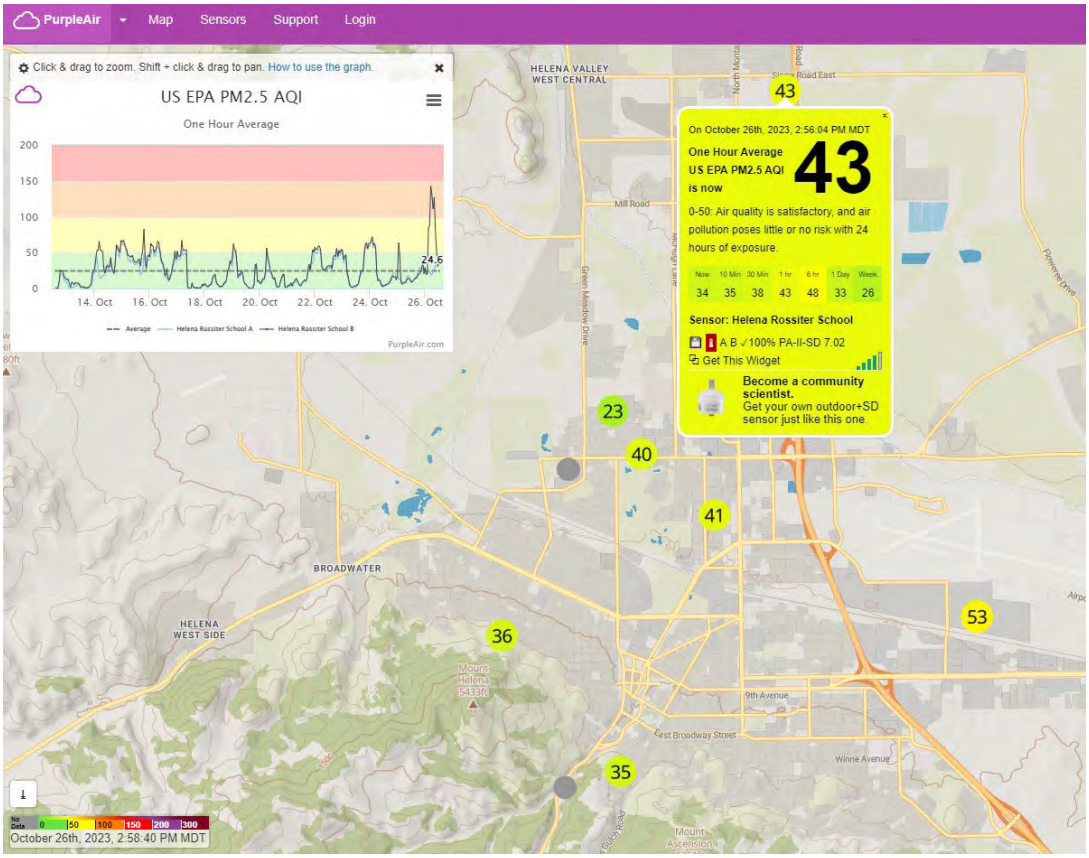
Free Air Sensors for your school to monitor Montana's air pollutant of concern: Particulate Matter ($PM_{2.5}$)

PurpleAir Sensors Report the Air Quality Index

- Air quality index (AQI) is calculated from the measured $PM_{2.5}$ concentration which is correlated to an AQI value.
- AQI value is on a scale of 0 to 500.
  - Lower the AQI value, the better the air quality.
- AQI index values reflect levels of health concern associated with exposure to $PM_{2.5}$.
- Ranges of health concern are communicated via color scale.

AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

The online PurpleAir Air Quality Map displays your sensors in addition to other sensors that have been installed in your community. The sensors provide the real-time AQI Level of Health Concern as well as a plot of the Health Concern trends.



DEQ MONTANA

UNIVERSITY OF MONTANA CENTER FOR POPULATION HEALTH RESEARCH

MONTANA HIGH SCHOOL MHSA ASSOCIATION

To get your **free air sensors** or more information contact Keri Nauman at MT DEQ (406-444-6698 & keri.nauman@mt.gov) or Dave Jones at UM (406-243-4861 & david.jones@mso.umt.edu).

Branded Social Media Posts-Wildfire Smoke

All social media images are also available in Canva. If you would like Montana DPHHS to share the Canva version of any post so you can tailor it to your community's needs, please email AirQuality@mt.gov with your specific request. We are happy to share with you.

Banners:

Instagram and Facebook

Click on number to link to corresponding posts

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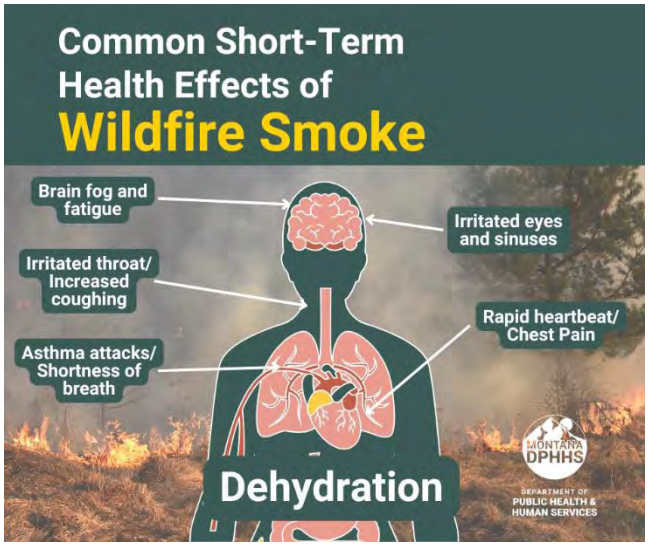

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DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES
Remember to check on family members who may be more at risk to the health risks of wildfire smoke.

8


Wildfire smoke is especially harmful to children
Protect them by limiting outdoor activities.
MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

9


Recirculating car air conditioning reduces smoke exposure by 80%
PublicHealth IN THE 406
MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

10


When the air is unhealthy, keep kids hydrated
PublicHealth IN THE 406

11


When the air is unhealthy, stay hydrated
PublicHealth IN THE 406

12


Wildfire smoke can significantly impact persons with asthma
Make wildfire smoke part of your action plan
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Facebook/Instagram text to accompany images

Air Quality Monitoring

(A) The AirNow Fire & Smoke Map can help you track smoke impacts during a wildfire. Find a link to the map and get more information to help you stay safe at the Montana DPHHS Air Quality website.

(B) Breathing wildfire smoke, even for short periods of time, can affect anyone and result in coughing, itchy eyes, runny nose, headache, and shortness of breath. AirNow.gov provides information about local air quality and contains a fire and smoke map to help you stay informed and healthy this wildfire season.

Wildfire Smoke and Health

(A) Wildfire smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases. Learn how you can protect your health and be safe during a wildfire smoke event. How Wildfire Smoke Affects Your Body at montanawildfiresmoke.org

(B) Smoke can irritate the eyes and airways, causing coughing, a dry scratchy throat, runny nose, trouble breathing, and irritated sinuses. Learn more about wildfire smoke impacts and ways to protect yourself on the Montana DPHHS Air Quality website

Wildfire Smoke and Children

Children are more at risk to the harmful effects of wildfire smoke because their lungs are still developing, they take more breaths during the day, and are usually more active than adults. It is important to pay attention to the Outdoor Activity Guidelines and limit their time outdoors during a wildfire smoke event.

Heart Condition

If you have a heart condition or another condition worsened by smoke, make sure you're ready for a wildfire smoke event. Have your management plan handy, refill medications & keep air filters, food and water on hand https://www.montanawildfiresmoke.org/health-risks.html#risk

Asthma

If you have asthma or another condition worsened by smoke, make sure you're ready for a wildfire smoke event. Have your management plan handy, refill medications & keep air filters, food and water on hand https://www.montanawildfiresmoke.org/health-risks.html#risk

Diabetes

If you have diabetes or another condition worsened by smoke, make sure you're ready for a wildfire smoke event. Have your management plan handy, refill medications & keep air filters, food and water on hand https://www.cdc.gov/wildfires/risk-factors/wildfire-smoke-and-people-with-chronic-conditions.html

Drinking Water

Smoke can irritate the eyes and airways, causing cough, a dry scratchy throat, runny nose, trouble breathing, and irritated sinuses. Drinking lots of water helps reduce inflammation and protects you from the effects of wildfire smoke.

Preparing Your Home

As wildfire season approaches, it's crucial to protect your indoor air quality. Take these steps now:

- Seal Doors and Windows: Prevent smoke from entering your home.
- Check Weather Stripping: Ensure it's intact and effective.
- Purchase an Air Purifiers: HEPA filters can make a big difference.

Visit Montana DPHHS Air Quality & Health for more ways to protect your indoor air this summer.

HEPA Air Purifier or DIY Air Cleaner Posts

(A) During a wildfire smoke event, it may become necessary to concentrate your efforts for clean indoor air to one room rather than your entire home. Consider buying a small HEPA air cleaner or make your own DIY air cleaner to help protect the space.

(B) During wildfire smoke season, indoor air quality may become even more unhealthy than the air outside. Beyond keeping windows and doors closed, buying a HEPA air cleaner or making your own DIY air cleaner can help clean the air in your home. Keep the device in the room you spend the most time in and move to your bedroom at night.

Medications

Wildfire smoke is especially harmful to persons with chronic conditions like asthma and other respiratory illnesses, heart conditions, and diabetes. Before wildfire season begins, stock up on medicines you or your loved ones take regularly and keep rescue medications close at hand.

Staying Inside During A Smoke Event

When poor air quality forces us indoors, find fun activities can help us stay connected to one another. Link: https://activeforlife.com/50-indoor-physical-activities-for-kids/

Taking Care of Your Community

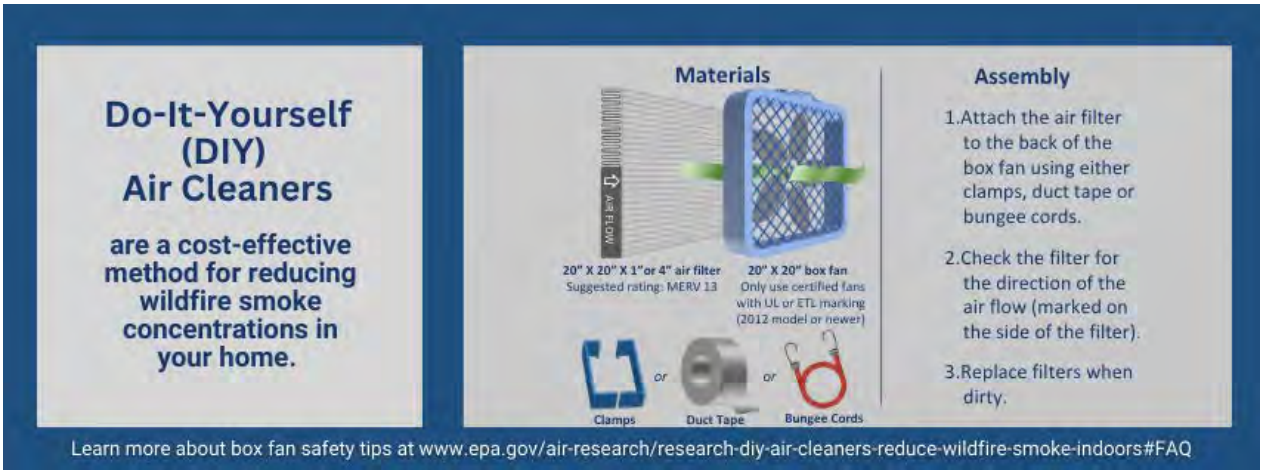
Wildfire smoke is especially dangerous to children, senior citizens, individuals who are pregnant, and those with chronic lung or heart conditions. Be sure to check on those most vulnerable during a smoke event.

Traveling by Car

If you must travel during a wildfire smoke event, be sure to keep your windows rolled up, your air conditioning on recirculate and your medication in hand. When possible, stay indoors until the air quality is back in the healthy range.

Social Media Posts Unbranded

All social media images are also available in Canva. If you would like Montana DPHHS to share the Canva version of any post so you can tailor it to your community's needs, please email AirQuality@mt.gov with your specific request. We are happy to share with you.



Facebook and Instagram Unbranded Posts

Click on number to link to corresponding posts

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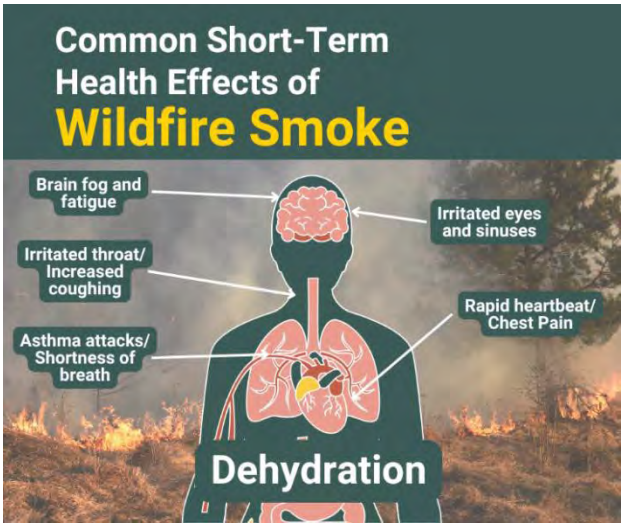

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Information for Individuals and Households

- Outdoor Activity Guidelines Based on Air Quality*
- Wildfire Smoke and Your Health Flyer
- Most Vulnerable Populations Flyer
- Before a Wildfire Smoke Event Checklist*
- During a Wildfire Smoke Event Checklist*
- DIY Air Cleaner Instructions*

***Materials available in other languages (see translated materials)**

PublicHealth IN THE 406

MONTANA DPHHS

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Outdoor Activity Guidelines Based on Air Quality

Health Effect Category	Good	Moderate	Unhealthy for sensitive groups*	Unhealthy	Very Unhealthy/ Hazardous
Visibility (miles)	**13+**	**9-13**	**5-9**	**2-5**	**Less than 2**
Air Quality Index	**0-50**	**51 - 100**	**101 - 150**	**151 - 200**	**201 +**
Outdoor Activity (15 - 30 minutes)	No limitations	No limitations	Sensitive groups should remain indoors as much as possible. If outdoors, limit vigorous activity.	Everyone should remain indoors as much as possible. Keep indoor activity levels light to moderate. If outdoors, keep activity levels light.	Everyone should remain indoors as much as possible. Keep indoor activity levels light.
Outdoor Activity (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Sensitive groups should remain indoors as much as possible. If outdoors, keep activities light to moderate.	Everyone should remain indoors as much as possible. Find alternative indoor activities in an environment with good air quality. Keep indoor activity levels light.	Everyone should remain indoors as much as possible. Find alternative indoor activities in an environment with good air quality. Keep indoor activity levels light.
Outdoor Activity (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Sensitive groups should remain indoors as much as possible. If outdoors, sensitive groups should keep activities light and avoid activities over 2 hours. Consider moving practices and events indoors. If events are not cancelled, increase rest periods to allow for lower breathing rates.	Everyone should remain indoors as much as possible. Reschedule events or relocate to an area with good air quality. Keep indoor activity levels light.	Everyone should remain indoors as much as possible. Reschedule events or relocate to an area with good air quality. Keep indoor activity levels light.
Visit todaysair.mtdeq.us for local air quality conditions and more information.					

Examples of Activities

Light Activities: Walking, stretching, playing board/card games, dancing slowly, light yard work
Moderate Activities: Brisk walking, yoga, gymnastics, tennis, skateboarding, weight training, light biking/hiking, hunting, canoeing, swimming
Vigorous Activities: Aerobics, Running/jogging, competitive sports, swimming, digging, biking uphill, wheeling a wheelchair

† *Please note that the intensity of an activity can vary by person and ability.*

*For the purpose of this document, sensitive groups include:

- **Children (ages 0-17 years)**: Children may be more sensitive to air pollution as their lungs are still developing and they may have an unknown underlying health condition.
- **People with chronic conditions:** People with chronic conditions, such as asthma or another respiratory disease, or cardiovascular disease, may be more sensitive to air pollution and should talk with their healthcare provider about managing their condition. People with chronic conditions should be medically managing their condition during air quality that is unhealthy for sensitive groups or worse. People with asthma should be following their Asthma Action Plan in all conditions.
- **Pregnant women**: During pregnancy, changes to a woman's body may increase vulnerability to environmental exposures. Additionally, during critical windows of human development, a pregnant woman's prolonged exposure to wildfire smoke may harm the developing baby.
- **Older adults**: Older adults are at increased risk of health effects from short-term exposures to wildfire smoke because of their higher prevalence of pre-existing lung and heart diseases.

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES
DEQ Montana Department of Environmental Quality

April 2025

How to Use This Table and the Today's Air Website

- Start planning early. Well before your event, start monitoring the air quality by visiting the todaysair.mtdeq.us website.
  - Review the smoke forecast on the DEQ website: deq.mt.gov/air/Programs/smokeforecasts.
  - If your area is not near an air quality monitor, follow directions below for using the visibility guidelines. You may also consider reviewing private outdoor ambient air quality monitors listed on the fire.airnow.gov website. It's important to note that private monitors may not be as accurate as DEQ monitors for a variety of reasons.
  - Make adjustments to your plans depending on the forecast and the health effect category.
- Continue to monitor the air quality and the forecast in your area.
  - Be sure to leave adequate time for decisions to be made before you travel.
  - Air quality can change rapidly. Regularly review the concentration levels before and throughout lengthy events to assess for deteriorating conditions.

How to Estimate Air Quality Based on Visibility

1. Use pre-determined landmarks that were established on a clear day for distances (face away from the sun).
2. Determine the limit of your visible range by looking for targets at known distances (miles).
3. Use the visibility values in the table to determine the local wildfire smoke health effect category.

What to Consider When Planning for Poor Air Quality

- Know which air quality monitor to reference or what geographic spots to use for visibility guidelines.
- Maintain an adequate supply of food and medication (more than five days).
- If you have a chronic lung or heart condition, check with your health care providers before the fire season about precautions to take during smoke events.
- Know how to maintain good indoor air quality.
  - Keep windows and doors closed.
  - Set air conditioning or furnace blower to recirculate and close the fresh air intake.
  - Do not perform any activities that will add to indoor pollution.
  - If you plan to use a portable HEPA air cleaner, buy one prior to wildfire season. Visit airquality.mt.gov for help deciding what air cleaner is best for your situation.
  - Use the air recirculate feature in vehicles when possible.
- If traveling, be aware of the air quality in the area and have a back-up plan.

Protection from Particulate Matter

Wildfires, wood burning, and air stagnation increase the fine particulate matter (PM2.5/PM10) in the air we breathe. Fine particulate matter travels easily indoors, especially through doors, windows, and small openings. Over time, concentrations of fine particulate matter indoors can approach the level of concentration outdoors. Supplemental use of properly sized HEPA air purifiers have been shown to improve indoor air quality by reducing particulate matter and chemicals in smoke. Buildings should consider adopting smoke readiness plans to ensure the best indoor air quality possible.

Cloth face coverings and dust masks offer little protection against harmful air pollutants in wildfire smoke because these coverings do not capture most small particles in smoke. The right respirator and proper fit can reduce your exposure to wildfire smoke. Anyone with lung or heart disease should check with their health care provider before using any mask.

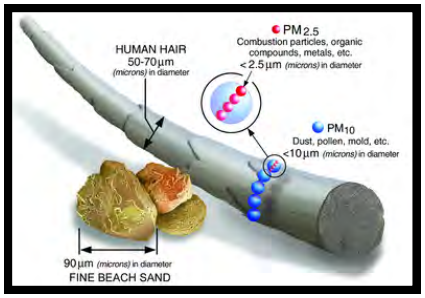
Visit AirQuality.mt.gov for more information on air pollution and how to protect your health during poor air quality conditions.

Wildfire Smoke & Your Health

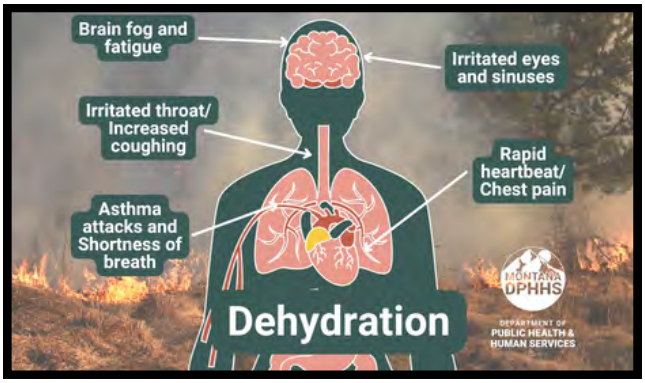
Protecting Yourself Indoors

Why do we worry about indoor air and wildfire smoke?

Wildfire smoke contains particulate matter that is four times smaller and up to ten times more toxic than other pollution. These tiny particles enter our homes and commercial buildings through open doors and windows, HVAC systems, and poorly sealed homes. They then travel into our lungs and in high quantities, can enter the bloodstream. This is harmful to all of us, but can be dangerous (and in some cases, deadly) to those with lung or heart conditions or those who are pregnant, children, or senior citizens.



Symptoms of Smoke Exposure



Wildfire smoke exposure may increase the risk of respiratory infections like bronchitis and pneumonia. Persons with lung or heart conditions should keep their rescue medication stocked and available. Closely monitor those who are more vulnerable and seek medical attention if symptoms become more noticeable.

Protecting Your Indoor Air

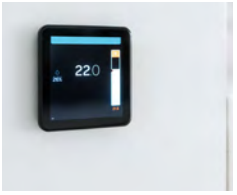
During a smoke event, the air inside can become as unhealthy as the air outside. These strategies protect the air in your home, community buildings, and businesses.

Keep doors and windows closed. Open at night to cool home if necessary

Avoid stovetop cooking, candle burning and smoking indoors

Use a HEPA air purifier or a DIY filter

Seal cracks in doors and windows



Change A/C setting to recirculate

For more information visit airquality.mt.gov

MOST VULNERABLE POPULATIONS TO WILDFIRE SMOKE

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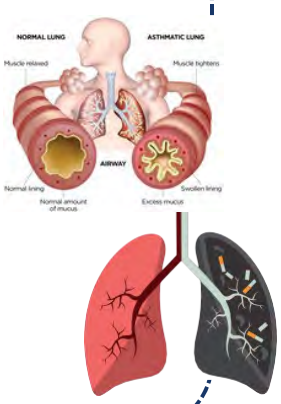
CHILDREN AGED 0-5

Wildfire is more dangerous to children because their lungs are still developing, they breathe more quickly and spend more time outdoors.

In addition, children may have a chronic disease that has not been identified yet.

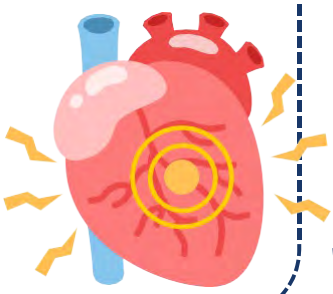
INDIVIDUALS WITH ASTHMA AND OTHER LUNG CONDITIONS

Wildfire smoke increases asthma symptoms like difficulty breathing, wheezing, and coughing. This may cause more reliance on rescue inhalers and possible emergency room visits.



INDIVIDUALS WITH HEART CONDITIONS

Wildfire smoke exposure is linked to chest pain, heart palpitations and emergency room visits.



OLDER ADULTS

Wildfire smoke exposure is a concern for older adults because of an increased prevalence of pre-existing conditions and also because the body's natural defense mechanisms decline with age.

INDIVIDUALS WHO ARE PREGNANT

Wildfire smoke exposure has been linked to a higher rate of preterm birth and lower birthweight babies.

INDIVIDUALS WHO WORK OUTSIDE

Working outside during a smoke event can result in a range of health effects, dependent on the health of the worker. This may range from eye or respiratory irritation to triggering asthma symptoms or a heart attack.

For more infomation, visit airquality.mt.gov

Preparing your home for a Wildfire Smoke Event

MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Wildfire smoke affects both indoor and outdoor air. If you live in an area where wildfire or wildfire smoke risk is high, consider these steps to keep you and your loved ones stay safe.

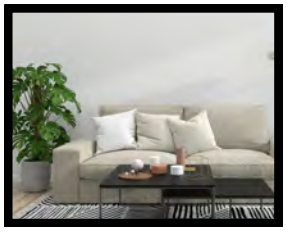
Bookmark the AirNow Fire and Smoke map

Seal cracks in doors and windows

Purchase a HEPA air cleaner

If a HEPA cleaner isn't available, make a DIY box fan filter to protect indoor air

Make sure you have several days' worth of medications you take regularly.



If you can't clean the air in your entire home, choose a room with limited windows to spend most of your time.

Sensitive Groups with Increased risk to wildfire smoke

Persons with health conditions: Asthma, COPD, Heart Disease, Diabetes · **Outdoor Workers** · **Persons 18 or younger** · **Persons 65 or older** · **Outdoor Workers** · **Pregnant People** · **People with Low Income**

For more information, visit the Montana DPHHS Air Quality website or montanawildfiresmoke.org

Checklist for Clean Indoor Air During a Wildfire Smoke Event

MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Wildfire smoke affects both indoor and outdoor air. If you live in an area where wildfire or wildfire smoke risk is high, consider these steps to keep you and your loved ones stay safe.

Follow AirNow.gov Fire and Smoke site for current air quality information

Keep doors and windows closed. If necessary, open windows at night to cool your home.

Avoid stovetop cooking, candle burning, and smoking indoors.

Use a HEPA Air Cleaner or DIY Box Fan Filter

If you can't clean the air in your entire home, focus on one room and spend most of your time there.

Additional steps when traveling in the car or for those with air conditioning in their homes

Replace system filter

Change A/C settings to recirculate

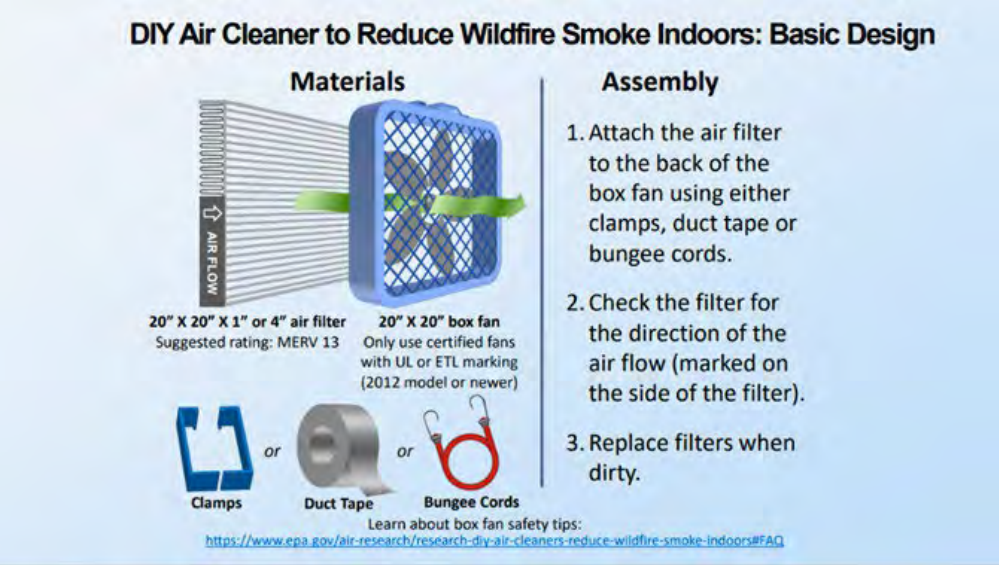
For more information, visit the Montana DPHHS Air Quality website or montanawildfiresmoke.org

DIY Air Cleaner Instructions

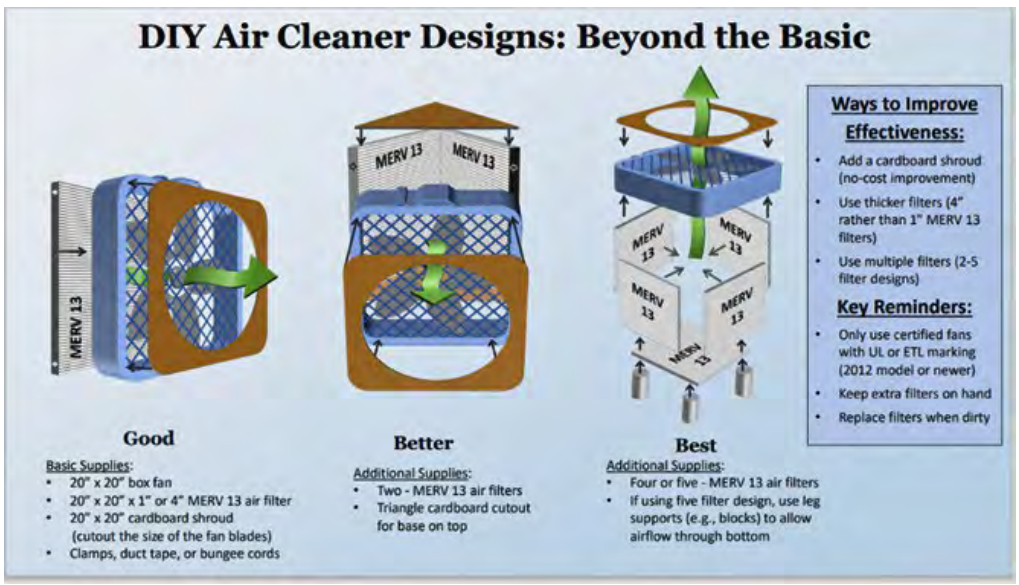
Smoke from wildfires in Montana can affect indoor as well as outdoor air quality, putting people's health at risk from exposure to particulate matter and other pollutants. When outdoor air is unhealthy, a HEPA air cleaner is recommended for your home. If a HEPA air cleaner is not available, a DIY Air Cleaner is an inexpensive and effective alternative to achieving cleaner indoor air.

The Basic Design for a DIY Air Cleaner is inexpensive, easy to build, and effective in small and medium sized rooms. The second image is a more complex design that will improve the effectiveness of the DIY cleaner.

How to Video from the Washington Department of Ecology for a Basic Box Fan DIY Cleaner: https://youtu.be/ukyF2xm8cws?si=MDCv25sGtbr4V0MX



Two filters taped with cardboard to form a triangle against the fan (video from the Confederated Tribes of the Colville Reservation): https://youtu.be/ukyF2xm8cws?si=MDCv25sGtbr4V0MX



Information for Businesses and Community Buildings

- Outdoor Activity Guidelines Based on Air Quality*
- Wildfire Smoke and Your Health Flyer
- Most Vulnerable Populations Flyer
- Wildfire Smoke and Employee Health Flyer

Small Businesses (please consider community buildings checklist as well)

- Before a Wildfire Smoke Event Checklist*
- During a Wildfire Smoke Event Checklist*

Commercial Building Smoke Readiness Plan (Checklist During Smoke Event)

***Materials available in other languages**

PublicHealth IN THE 406

MONTANA DPHHS DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Commercial Building Smoke Readiness Plan

As designers, building operators, and citizens, we need to protect ourselves from the harmful effects of wildfire smoke, which is becoming a more frequent and imposing issue. There are solutions available, but they need to be custom designed to each facility.

10 Elements of a Smoke Readiness Plan

1. Purchase smoke preparation supplies such as portable air cleaners and extra filters.
2. Consult an HVAC professional before the wildfire season to evaluate whether the system can accommodate a higher efficiency filter, like MERV 13 or higher.
3. Conduct a full annual maintenance check of the HVAC system and make repairs if needed.
4. Assess and maintain adequate air flows to protect occupant health during smoke events. Operate HVAC systems in re-circulate mode or temporarily reduce the amount of outdoor air supplied to the building.
5. Prepare to add supplemental filtration at the intake air vent where possible.
6. Assess filter conditions by adding a port or pressure gauge to measure the filter pressure drop on at least one air- handling unit.
7. Weatherize the building to limit smoke intrusion. Consider measures such as limiting allowable entrances to reduce smoke entry (e.g., keeping loading dock and bay doors closed when not in actively in use).
8. Prepare to monitor indoor fine particulate matter (PM2.5) by purchasing one or more low-cost air sensors designed to measure the pollutant. These low-cost sensors can show trends in PM2.5 levels.
9. Determine how to create temporary cleaner air spaces within the building.
10. Reduce sources of indoor PM2.5 such as cooking, vacuum cleaning, use of printers or copiers and smoking.

[ASHRAE Planning Framework for Protecting Commercial Building Occupants from Smoke During Wildfire Events]


Planning Framework for Protecting Commercial Building Occupants from Smoke During Wildfire Events

SECTION 1: PURPOSE

Wildfire Smoke & Employee Health

Employers should be aware that wildfire smoke may adversely affect the health of their workforce and prepare to take action to limit their workers' exposures when wildfire smoke is impacting a work environment.

Check PM2.5

Todays Air

Check PM2.5 levels at todaysair.mtdeq.us or by using a well-placed ambient air quality monitor designed for public use.

Communication

Implement a system for communicating about the health risks of wildfire smoke exposure in a manner understandable by all employees. Create a supportive environment for employees to express health concerns.

Reduce Exposure

Implement engineering controls, when feasible, to reduce employee exposure to PM2.5. Examples include providing enclosed structures or vehicles for employees to work in or take a break in where the air is filtered.

Workplace Controls

Implement changes to work procedures or schedules when practical. Examples include changing work schedules or the location where employees work, reducing levels of strenuous physical activity, and taking frequent breaks when air quality is poor.

Respirators

Consider supplying N95/P100 masks or respirators for employee use on a voluntary basis when ambient PM2.5 levels are elevated due to wildfires and other comprehensive environmental controls have been implemented. Information on the voluntary use of respirators is available on the OSHA website. If respirator use is required, the employer must institute a comprehensive respiratory protection program.

Hydration

Wildfire smoke can contribute to the effects of heat stress. Provide cool drinking water on the work site and encourage frequent rest breaks on hot days. Remind your workers to drink a glass of water at least every 15 to 20 minutes even if they aren't feeling thirsty.

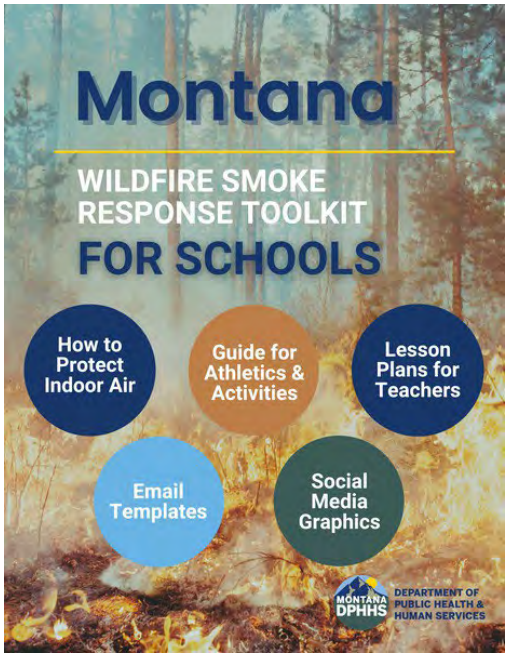
For more information on how to protect your health during poor air quality conditions, visit dphhs.mt.gov/airquality.

MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

School Resources

- Wildfire Smoke Air Quality Monitoring and Response Plan for Schools
- Administrator Wildfire Smoke Response Parent Email Template
- Administrator Wildfire Smoke Response Teacher Email Template
- Activity Guideline for Wildfire Smoke Events-Schools
- Most Vulnerable Student Populations to Wildfire Smoke Flyer
- Suggest 504/Health Plan Considerations for Wildfire Smoke
- Training Considerations for Student Athletes During Smoke Event Flyer
- Wildfire Smoke Practice Protocol Template

More school resources (including lesson plans) available in the Wildfire Smoke Response Toolkit for Schools available on the Montana DPHHS website or by emailing AirQuality@mt.gov



PublicHealth IN THE 406

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Air Quality Monitoring & Control Policy
_ _____ School/District

1. Determine outdoor air quality using the DEQ PM 2.5 readings and/or Air Quality and Activity Guidelines. If there is uncertainty about the air quality in the area, the school may contact the local county air quality specialist if available or the DEQ Air Quality Monitoring Section (406-444-6695) for assistance.

2. Teachers and staff will be asked to close classroom windows to prevent smoke from easily entering the building through these openings.

3. Signage will be placed on exterior doors with instructions to keep doors closed as much as possible and discourage propping doors open during times of poor outdoor air quality.

4. HVAC system efficiency will be assessed and adjustments will be made to reduce the amount of outdoor air introduction into the classroom. Changes made to the operation of the HVAC system are in compliance with the most recent building and mechanical codes adopted by the state of Montana.

5. HVAC system filters will be changed to efficiency MERV 13 or greater depending on system capabilities.

6. Individual air conditioning units will be switched to recirculate if possible. If recirculate option is not available, the units will be closed to outside air.

7. HEPA air purifier units will be placed in classrooms, with the priority being classrooms with sensitive individuals (i.e. students with asthma and other lung or heart conditions).

8. A clean air space will be established where sensitive individuals can go for relief from elevated levels of PM 2.5. (A clean indoor air space is a room with little to no outdoor air infiltration. HEPA air purifiers can help clean the air in these spaces).

9. Passive vents allowing outdoor air to infiltrate the building will be shut if possible.

10. School officials will notify parents of the precautions taken to maintain the cleanest indoor air possible.

(Replace with school logo)

DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Email Template for Principals to Parents

Subject: School Wildfire Smoke Plan

Dear Parents and Guardians,

I hope this message finds you well. As you may be aware, our region is currently experiencing significant wildfire activity, which has led to poor air quality. The health and safety of our students and staff are our top priorities. We monitor the outdoor air quality and when it reaches unhealthy levels, all outdoor activity will be moved indoors.

Key Actions in Our Wildfire Smoke Plan:

1. Indoor Air Quality: We are keeping all windows closed to prevent smoke from entering the building. External doors have signage instructing to keep doors closed as much as possible. Portable HEPA air cleaners are being used in classrooms where available.
2. Outdoor Activities: All outdoor activities, including recess and physical education, will be moved indoors when outdoor air quality becomes unhealthy. We also encourage parents to arrange alternate transportation for students who usually walk or bike to school.
3. Sensitive Individuals: All children ages 0-17 are considered to be more sensitive to air pollution, as their lungs are still developing, and they may have an unknown underlying health condition. Students with confirmed respiratory conditions such as asthma may be more affected by the smoke. Please ensure that your child has their necessary medications and inform the school if they require special accommodations.

How You Can Help:

- Stay Informed: Keep track of local air quality reports and follow any additional recommendations from health officials. Visit airquality.mt.gov for more health information.
- Prepare Your Child: Ensure your child understands the importance of staying indoors and following the school's guidelines during this period.
- Health Precautions: If your child experiences difficulty breathing, coughing, or other symptoms, please seek medical attention promptly.

We appreciate your cooperation and understanding as we navigate this challenging situation. Our goal is to maintain a safe and healthy learning environment for all students.

Thank you for your support.
Best regards,
[Your Name]
Principal
[School Name]

Email Template for Principals to Teachers

Subject: Wildfire Smoke Event
Dear Teachers,
As you may be aware, our region is currently experiencing significant wildfire smoke, which has led to deteriorating air quality. We will follow MT DPHHS recommendations for air quality and outdoor activity. If the Air Quality Index (AQI) score is over 150, students will have indoor recess. Additionally, students with chronic conditions will have indoor recess if the AQI is over 100. If you have questions about individual students, please contact the school nurse or myself. The health and safety of our students and staff are our top priorities, and I want to ensure we are all taking the necessary steps to maintain a safe environment.

Key Actions to Maintain Health and Safety

1. Keep Windows and Doors Closed: To prevent smoke from entering the building, please ensure that all windows always remain closed.
2. Use Air Cleaners: If available, use portable HEPA air cleaners in classrooms to help filter out harmful particles. Consider device operation settings and ask your building manager or administration if you are unsure how to use the air cleaner provided.
3. Limit Outdoor Activities: Recess, physical education, and any other outdoor activities should be moved indoors if the AQI is over 150. We will monitor air quality throughout the day and communicate any changes.
4. Avoid Additional Indoor Pollutants: Refrain from using candles, incense, harsh cleaning chemicals or any other items that could contribute to indoor air pollution.
5. Encourage students to drink water: Dehydration is a common health effect of wildfire smoke exposure.

Support for Sensitive Individuals:
Students and staff with respiratory conditions such as asthma may be more affected by the smoke. Please be vigilant and provide support as needed. If any student or staff member experiences difficulty breathing, coughing, or other symptoms, they should seek medical attention promptly.

Thank you for your cooperation and dedication to maintaining a safe and healthy learning environment.

Best regards,
[Your Name]
Principal
[School Name]

Outdoor Activity & Air Quality Guidelines for Schools and Child Care Facilities

Health Effect Category	Good	Moderate	Unhealthy for sensitive groups*	Unhealthy	Very Unhealthy/ Hazardous
Visibility (miles)	13+	9-13	5-9	2-5	Less than 2
Air Quality Index (AQI)	0-50	51 - 100	101 - 150	151 - 200	201 +
Recess or Other Outdoor Activity (15-30 minutes)	No limitations	No limitations	Keep students with chronic lung or heart conditions indoors. Make indoor space available for all children to be active, especially young children.	Keep all students indoors and limit students to light or moderate activities.	Keep all students indoors and limit students to light activities.
Physical Education Class (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Keep students with chronic lung or heart conditions indoors. Limit these students to light activities. Make indoor space available for all students to be active, especially young children. If outdoors, limit students to light or moderate activities.	Conduct P.E. classes in an indoor environment with good air quality and limit students to light or moderate activities.	Conduct P.E. classes in an indoor environment with good air quality and limit students to light activities.
Athletic Events and Practices (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Students with chronic lung or heart conditions should abstain from outdoor practices and events based on the severity of their condition and sensitivity to smoke. Consider moving practice and events indoors. If events are not cancelled, increase rest periods and substitutions to allow for lower breathing rates.	Reschedule events or relocate to an area with good air quality. Conduct practices in an indoor environment with good air quality and limit students to light activities.	Reschedule/cancel events. Conduct practices in an indoor environment with good air quality and limit students to light activities.
Visit todaysair.mtdeq.us for local air quality conditions and more information.					

Examples of Activities

Light Activities: Walking, stretching, playing board/card games, dancing slowly

Moderate Activities: Yoga, gymnastics, shooting basketballs, skateboarding, weight training, hiking, biking, golfing

Vigorous Activities: Running/jogging, basketball, football, soccer, swimming, cheerleading, and wheeling your wheelchair

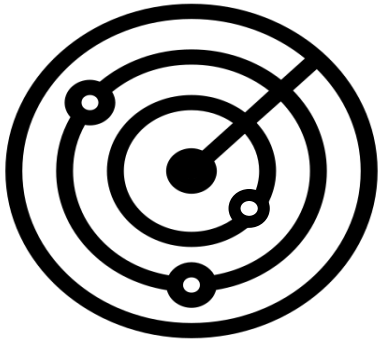
† *Please note that the intensity of an activity can vary by person and ability.*

*For the purpose of this document, sensitive groups include:

- **Children (ages 0-17 years)**: Children may be more sensitive to air pollution as their lungs are still developing and they may have an unknown underlying health condition.
- **People with chronic conditions:** People with chronic conditions, such as asthma or another respiratory disease, or cardiovascular disease, may be more sensitive to air pollution and should talk with their healthcare provider about managing their condition. People with chronic conditions should be medically managing their condition during air quality that is unhealthy for sensitive groups or worse. Students with asthma should be following their Asthma Action Plan in all conditions.
- **Pregnant women**: During pregnancy, changes to a woman's body may increase vulnerability to environmental exposures. Additionally, during critical windows of human development, a pregnant woman's prolonged exposure to wildfire smoke may harm the developing baby.
- **Older adults**: Older adults are at increased risk of health effects from short-term exposures to wildfire smoke because of their higher prevalence of pre-existing lung and heart diseases.

How to Use This Table and the Today's Air Website

- Start planning early. Well before your event, start monitoring the air quality by visiting the **todaysair.mtdeq.us** website.
  - Review statewide smoke forecasts on the DEQ website: **deq.mt.gov/air/Programs/smokeforecasts**.
  - If your area is not near an air monitor, follow directions below for using the visibility guidelines.
  - Make adjustments to your plans depending on the forecast and the health effect category.
- Continue to monitor the air quality and the forecast in your area.
  - Be sure to leave adequate time for decisions to be made before teams/participants begin travel.
  - Air quality can change rapidly. Regularly review the PM2.5 concentration levels before and throughout lengthy events to assess for deteriorating conditions.



How to Estimate Air Quality Based on Visibility:

1. Use pre-determined landmarks that were established on a clear day for distances (face away from the sun).
2. Determine the limit of your visible range by looking for targets at known distances (miles).
3. Use the visibility values in the table to determine the local wildfire smoke health effect category.

Items to Consider When Planning for Poor Air Quality During the School Year

- Is there an indoor/outdoor air quality section in the school or district wellness policy? If so, do you know where it is located?
- Which air quality monitor do you use or what geographic spot do you use for visibility guidelines? Does your school have its own air quality monitors?
- Who makes the decisions to hold, cancel, or reschedule outdoor events? What is the procedure for rescheduling events? How do you communicate your decision with stakeholders? If participants are already traveling, how do you notify them?
- What do you do for recess and athletic practices on days with poor air quality?
- Has the school/district adopted a smoke readiness plan? What are the school/district plans to protect indoor air quality if poor outdoor air quality persists for a long period of time?
- Has the school inspected the air handling system and made necessary improvements to ensure ultimate efficiency?
- How do you document what happened during wildfire smoke or other air pollution events? What went well? What can be done better?

Protection from Particulate Matter

Wildfires, wood burning, and air stagnation increase the fine particulate matter (PM2.5/PM10) in the air we breathe. Fine particulate matter travels easily indoors, especially through doors, windows, and small openings. Over time, concentrations of fine particulate matter indoors can approach the level of concentration outdoors. Schools should use MERV 13 rated filters or greater in their HVAC systems if the system is capable. Supplemental use of properly sized HEPA air purifiers have also been shown to improve indoor air quality by reducing particulate matter and chemicals found in smoke.

Cloth face coverings and dust masks offer little protection against harmful air pollutants in wildfire smoke because these coverings do not capture most small particles in smoke. Anyone thinking about wearing an N95 mask or respirator should consult their physician prior to doing so. Individuals experiencing symptoms such as wheezing, shortness of breath, chest pain, headache, and dizziness should be seen by a medical provider. Schools should be aware of students with asthma and other chronic conditions and consider accommodations for these students to minimize their exposure to wildfire smoke.

Visit AirQuality.mt.gov for more information on particulate matter and how to protect your health during poor air quality conditions.

MOST VULNERABLE STUDENT POPULATIONS TO WILDFIRE SMOKE

MONTANA DPHHS
DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

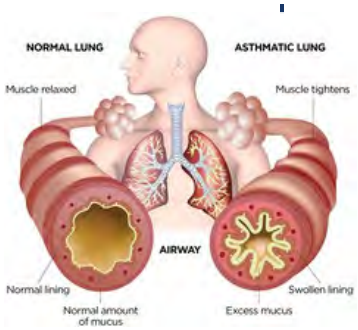
CHILDREN AGED 0-5

Wildfire is more dangerous to children because their lungs are still developing, they breathe more quickly and spend more time outdoors.

In addition, children may have a chronic disease that has not been identified yet.

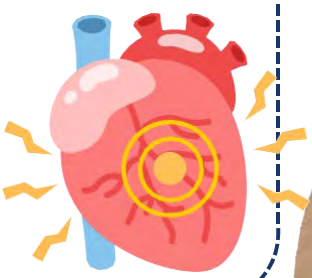
STUDENTS WITH ASTHMA

Wildfire smoke increases asthma symptoms like difficulty breathing, wheezing, and coughing. This may cause more reliance on rescue inhalers and possible emergency room visits.



STUDENTS WITH HEART CONDITIONS

Wildfire smoke exposure is linked to chest pain, heart palpitations and emergency room visits.



STUDENTS WITH OTHER LUNG ISSUES

Wildfire smoke exposure increases symptoms like shortness of breath, chest tightness, and fatigue or dizziness.

STUDENTS WITH DIABETES

Wildfire smoke exposure increases dehydration and has been associated with an increase in symptoms of diabetes.

STUDENT ATHLETES

Increased rate of breathing exposes lungs to increased levels of wildfire smoke, leading to inflammation, coughing, shortness of breath, and susceptibility to respiratory illness

Montana DPHHS suggested Section 504 Language
for students with chronic health conditions

Montana DPHHS recognizes that all children ages 0-17 are more sensitive to air pollution, as their lungs are still developing, and they may have an unknown underlying health condition. However, students with confirmed respiratory and heart conditions may be more affected by the smoke. Please consider the following accommodations when developing a 504 plan:

Section 504 Plan for Students with Chronic Conditions During Wildfire Smoke Events

Accommodations and Modifications:

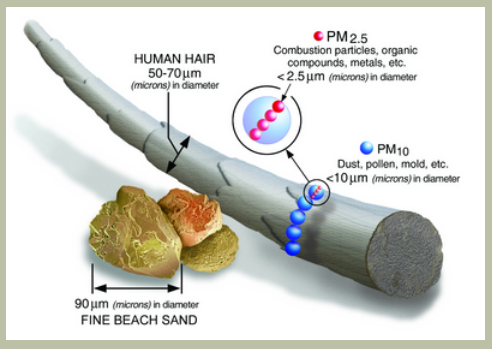
1. **Indoor Air Quality Monitoring:**
    - Portable air purifiers with HEPA filters will be used in classrooms and common areas.
2. **Health and Safety Plan:**
    - The school nurse will have an updated health plan for the student, including medication administration and emergency contact information.
    - Staff will be trained on recognizing symptoms of smoke exposure and how to respond.
    - Staff will remind student to keep rescue medication in close proximity and will know where that medication is located.
3. **Access to Clean Air Spaces:**
    - The student will have access to designated clean air spaces, such as the library or a specific classroom, during wildfire smoke events.
4. **Educational Adjustments:**
    - The student may be excused from outdoor activities and physical education during wildfire smoke events.
    - Flexible deadlines and additional breaks may be provided to accommodate the student's health needs

Training Considerations for Athletes During Wildfire Smoke Events

What makes wildfire smoke so unhealthy?

Wildfire smoke is a mixture of air pollutants that can cause long-term negative health effects. The air pollutant of greatest concern in Montana is fine-particulate matter (PM2.5), which poses a significant health risk because it can penetrate deep into the lungs and enter the bloodstream. While larger particulate matter exists, our respiratory system is generally able to filter out these particles more effectively.

Since PM2.5 can penetrate deep into the lungs and bloodstream, this can trigger an inflammatory response resulting in serious effects on the cardiovascular system. Those with pre-existing conditions are at greatest risk of severe health impacts. However, all individuals may experience negative health impacts such as breathing difficulties, irritation, and increased infections following exposure to PM2.5..



When the outdoor Air Quality Index (AQI) reaches unhealthy levels of concern, activities should be moved inside and high intensity exercise should be avoided.

Indoor air quality is often as unhealthy, or even worse than outdoor air quality due to the infiltration of smoke in indoor air.

Common infiltration points include open windows and doors, cracks and poorly sealed doors and windows, and aging HVAC systems. Larger areas, like gymnasiums, may remain at safe levels longer due to the greater volume of air but may still accumulate unhealthy levels of PM2.5 during significant smoke events. Therefore, it may still be unsafe to host physical activities there.

If there's no difference, why can't we just stay outside?

Research indicates that being inside will normally decrease the intensity of activity, which, in turn slows down breathing rates and the amount of particulate matter inhaled. In addition, you can improve indoor air quality by running HEPA air purifiers and keeping doors and windows closed in workout areas.

How do I adapt indoor practices?

When developing practice plans for poor air quality days, think about strategies that will improve team performance but will keep breathing rates lowered. A cardiovascular conditioning workout is ill-advised, but there are plenty of other options:

- Walkthroughs
- Strength Training
- Lower Intensity Drills
- Stretching/Mobility Work
- Other Sport Specific, Low Intensity Work

Important Precautions:

- *Be aware of athletes with chronic conditions and keep rescue medications close*
- *Keep athletes hydrated*
- *Watch for signs of nausea, shortness of breath, dizziness, coughing and wheezing*

What do I tell parents and athletes?

Frontload parent communication with analogies they will understand. For example, when an athlete suffers a knee injury, the inflammation from that injury is visible. Wildfire smoke induced inflammation is internal but is just as detrimental to athlete performance and their health. Team practices provide social and mental health benefits, in addition to physical benefits, so even a mobility workout is productive. Focus on providing safe alternatives in a clean air space before canceling practices all together.

Finally, encourage athletes to 1) rehydrate, 2) eat foods rich in antioxidants (berries, apples, black beans), 3) get extra sleep, and 4) sleep in a room with a HEPA air purifier (when possible). Staying well-hydrated helps the liver and kidneys to remove toxins and additional recovery efforts will help reduce systemic inflammation caused by smoke exposure.

For more information about wildfire smoke, visit airquality.mt.gov

Wildfire Smoke Practice Protocol Template

*If you would like more information about obtaining a free indoor and outdoor air monitor for your school, read the **PurpleAirs in Schools Project** information attached to this document*

Purpose: To protect the health and well-being of athletes and staff during wildfire smoke events by providing clear guidelines for practice and games.

Monitoring Air Quality

1. **Check Air Quality Index (AQI)**: Before each practice or game, check the AQI using reliable sources such as AirNow.gov or your free registered high school PurpleAir monitor.
2. **AQI Levels and Recommended Actions**:
    - **0-50 (Good)**: Normal practice and games.
    - **51-100 (Moderate)**: Monitor sensitive individuals; reduce intensity if needed.
    - **101-150 (Unhealthy for Sensitive Groups)**: Modify practice to low-intensity activities; consider moving practice indoors.
    - **151-200 (Unhealthy)**: Move practice indoors or cancel outdoor activities.
    - **201-300 (Very Unhealthy)**: Cancel all outdoor activities; move indoors if possible.
    - **301+ (Hazardous)**: Cancel all activities.

Actions During High AQI Levels

1. **Communication**: Inform all coaches, staff, athletes, and parents about the AQI levels and any changes to practice schedules.
2. **Indoor Activities**: Plan indoor practice sessions, focusing on strategy, team meetings, mobility/stretching, and light exercises.
3. **Monitoring Athletes**: Closely monitor athletes with asthma or other lung or heart conditions. Ensure they have access to medications and are aware of the protocol.

General Guidelines

1. **Hydration**: Emphasize the importance of staying hydrated.
2. **Rest Periods**: Increase the frequency of rest periods and reduce the duration of intense activities.
3. **Medical Equipment**: Ensure the availability of medical equipment such as inhalers and first aid kits.
4. **Education**: Educate athletes on the symptoms of smoke exposure and encourage them to report any discomfort.

Signs of Smoke Exposure

1. **Common Symptoms**: Coughing, throat irritation, headaches, shortness of breath, fatigue, and chest pain.
2. **Immediate Actions**: Athletes experiencing these symptoms should stop activities immediately and seek medical attention if necessary.

Emergency Contact List

1. **Ensure Accessibility**: Maintain an updated list of emergency contacts for all athletes, especially those with pre-existing lung or heart conditions.
2. **Emergency Plan**: Have a clear plan for emergency situations, including transportation to medical facilities if needed.

Translated Materials

Montana DPHHS will continue to grow the library of translated materials for our Montana communities. Please email AirQuality@mt.gov if you have specific materials that you'd like to see translated or specific languages we have not addressed but are needed for Montana community memebers.

- Air Quality Activity Guidelines (Spanish)
- Air Quality Guidelines (Russian)
- Air Quality Guidelines (Ukranian)
- Creating a Clean Air Room During a Wildfire Smoke Event (Spanish)
- DIY Air Cleaner Instructions (Spanish)

In Development:

- Public Service Announcements
- Preparing for a Wildfire Smoke Event Checklist
- During a Wildfire Smoke Event Checklist
- Social Media Posts

PublicHealth IN THE 406

MONTANA DPHHS DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

Guía informativa sobre la calidad del aire en Montana para la contaminación por partículas

Verifique las condiciones actuales y previstas en AirNow.gov.

Los gases de los escapes de los vehículos, las emisiones de las estufas a le a, las emisiones industriales, el humo de los incendios forestales, el polvo arrastrado por el viento y otras fuentes contienen partículas finas de 2.5 micr metros de diámetro o menos (PM2.5) que pueden ser peligrosas para la salud.

El índice de calidad del aire (ICA) establece seis categorías para proporcionar información sobre el nivel de calidad del aire y los problemas de salud:

Índice de calidad del aire	*¿Qué debo hacer?*
Buena 0–50	Es un excelente día para hacer ejercicio al aire libre y un buen momento para elaborar un plan si se prevé un empeoramiento de la calidad del aire.
Moderada 51–100	Algunas personas son particularmente sensibles a los niveles más bajos de contaminación por partículas, por lo que deben reducir la exposición a estas. Por ejemplo, deben reducir el tiempo que pasan en el exterior y evitar realizar actividades extenuantes al aire libre. Todos los grupos sensibles deben estar atentos a los síntomas.
Dañina para grupos sensibles 101–150	Los grupos sensibles deben tomar medidas para reducir la exposición. Deben reducir el tiempo que pasan en el exterior, evitar realizar actividades extenuantes al aire libre y seguir los consejos para respirar un aire más limpio en interiores. Todos deben estar atentos a los síntomas, ya que indican si es necesario reducir la exposición.
Dañina 151–200	Todos deberían reducir la exposición. Deben reducir el tiempo que pasan en el exterior, evitar realizar actividades extenuantes al aire libre y seguir los consejos para respirar un aire más limpio en interiores.
Muy dañina 201–300	Todos deberían reducir la exposición. Deben quedarse en casa y filtrar el aire interior para mantenerlo más limpio. Vayan a otro sitio para respirar un aire más puro, si es necesario.
Peligrosa >300	Todos deberían reducir la exposición. Deben quedarse en casa y filtrar el aire interior para mantenerlo más limpio. Vayan a otro sitio para respirar un aire más puro, si es necesario.

Consulte el reverso para conocer las medidas que debe tomar para reducir la exposición y acceder a una lista de grupos sensibles con mayor riesgo.

Para obtener información sobre el humo de los incendios forestales y las medidas para proteger la salud, visite *https://dphhs.mt.gov/airquality/SmokefromFires*

Medidas para reducir la exposici n

Limite la duración y la intensidad de las actividades físicas que realiza al aire libre.

Quédese en casa para respirar un aire interior más limpio:

Cierre las ventanas y las puertas, a menos que haga demasiado calor para mantener una temperatura segura.

No contribuya a la contaminación del aire interior encendiendo velas o fumando cigarrillos.

Filtre el aire interior mediante un sistema de HVAC (por su sigla en inglés; calefacción, ventilación y aire acondicionado), un purificador de aire portátil con filtros HEPA (por su sigla en inglés; filtro de aire de partículas de alta eficiencia) o un filtro de ventilador hecho por usted.

Ponga los aires acondicionados en modo de recirculación.

Si no puede mantener el aire limpio en el hogar, vaya a otro sitio para respirar un aire más puro, como la casa de un amigo, un espacio público o una zona no afectada.

Si debe estar al aire libre, use un respirador de partículas aprobado por el NIOSH (por su sigla en inglés, Instituto Nacional para la Seguridad y Salud Ocupacional) que se ajuste adecuadamente, como una mascarilla N95.

Grupos sensibles con mayor riesgo

- Personas con problemas de salud
  - Enfermedades pulmonares, como el asma y la EPOC
  - Enfermedades cardíacas
  - Enfermedades respiratorias
  - Diabetes
- Personas de 18 años o menos, o mayores de 65
- Embarazadas
- Trabajadores al aire libre
- Personas de color
- Poblaciones tribales e indígenas
- Personas con bajos ingresos

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Washington State Department of Health

DEPARTMENT OF ECOLOGY State of Washington

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Para obtener información sobre el humo de los incendios forestales y las medidas para proteger la salud, visite dphhs.mt.gov/airquality/SmokefromFires.

Руководство по контролю качества воздуха в штате Монтана в условиях его загрязнения частицами

На сайте AirNow.gov можно проверить текущие и прогнозируемые погодные условия.

Выхлопы автомобилей, продукты горения от дровяных печей, промышленные выбросы, дым от стихийных пожаров, переносимая ветром пыль и другие источники загрязнения содержат мелкие частицы диаметром 2,5 микрометра или меньше (PM 2,5), которые могут быть опасны для вашего здоровья.

Air Quality Index (AQI, индекс качества воздуха) отражает показатели качества воздуха и риска возникновения проблем со здоровьем по шести категориям:

Индекс качества воздуха	Что мне делать?
Хороший 0–50	Отличный день для активного отдыха на свежем воздухе и самое подходящее время, чтобы составить план на случай возможного ухудшения качества воздуха.
Средний 51–100	Некоторые люди особенно восприимчивы к низким уровням загрязнения воздуха частицами вредных веществ и должны максимально избегать их воздействия. Например, следует ограничить время пребывания на улице и избегать активной деятельности вне помещения. Всем людям, входящим в группы риска, нужно следить за появлением соответствующих симптомов.
Неблагоприятный для групп риска 101–150	Лицам, относящимся к группам риска, следует предпринимать определенные шаги, чтобы уменьшить воздействие неблагоприятных условий. Ограничьте время пребывания на улице, избегайте активной деятельности на свежем воздухе и следуйте советам по очистке воздуха в помещении. Всем людям необходимо отслеживать проявления симптомов, чтобы своевременно снизить уровень воздействия загрязнения.
Неблагоприятный 151–200	Всем людям следует минимизировать воздействие вредных факторов на организм. Ограничьте время пребывания на улице, избегайте активной деятельности на свежем воздухе и следуйте советам, помогающим очистить воздух в помещении.
Очень неблагоприятный 201 300	Всем людям следует минимизировать воздействие вредных факторов на организм. Оставайтесь дома и используйте фильтры для очистки воздуха в помещении. При необходимости покиньте загрязненный район.
Опасный >300	Всем людям следует минимизировать воздействие вредных факторов на организм. Оставайтесь дома и используйте фильтры для очистки воздуха в помещении. При необходимости покиньте загрязненный район.

На последней странице приведены сведения о мерах по уменьшению воздействия вредных веществ и список групп лиц, подверженных более высокому риску ухудшения состояния здоровья.

Информацию о дыме от стихийных пожаров и защите здоровья см. на сайте dphhs.mt.gov/airquality/smokefromfires.

Шаги по уменьшению воздействия вредных факторов

Ограничьте продолжительность и интенсивность физической активности на свежем воздухе.

Оставайтесь в помещении и позаботьтесь о чистоте воздуха.

Закройте окна и двери, если не слишком жарко для поддержания безопасной температуры в помещении.

Избегайте дополнительного загрязнения воздуха в помещении, например курением сигарет или зажженными свечами.

Фильтруйте воздух в помещении с помощью системы отопления, вентиляции и кондиционирования (ОВиК), переносного воздухоочистителя HEPA или самодельного фильтра-вентилятора.

Настройте кондиционер на рециркуляцию воздуха.

Если вы не можете поддерживать чистоту воздуха в помещении, отправьтесь в районы с более чистым воздухом, например к друзьям, в общественные места или безопасные регионы.

Если пребывания на улице не избежать, наденьте правильно подобранный респиратор, защищающий от мелких частиц и одобренный National Institute for Occupational Safety and Health (NIOSH, Национальный институт по охране труда и промышленной гигиене), например маску N95.

Группы с повышенным риском

- Люди, уже имеющие какие-либо заболевания или патологии:
  - Заболевания легких, такие как астма и ХОБЛ
  - Болезни сердца
  - Болезни легких
  - Диабет
- Люди младше 18 лет и старше 65 лет
- Беременные женщины
- Работающие на свежем воздухе
- Люди разной расовой принадлежности
- Представители племен и коренное население
- Люди с низким доходом

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Washington State Department of Health

DEPARTMENT OF ECOLOGY State of Washington

MONTANA DPHHS DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES

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Информацию о дыме от стихийных пожаров и защите здоровья см. на сайте dphhs.mt.gov/airquality/SmokefromFires

Інструкція із забезпечення якості повітря в штаті Монтана в умовах забруднення частинками

Перевірте стан повітря (поточний і прогнозований) на сайті AirNow.gov.

У викидах автомобілів, дров'яних печей, промислових викидах, диму лісових пожеж, пилу, що переноситься вітром, тощо є дрібні частинки діаметром 2,5 мікрометра або менше (PM2,5), які можуть бути небезпечними для вашого здоров'я.

Air Quality Index (AQI, індекс якості повітря) є показником якості повітря та ризику виникнення проблем зі здоров'ям за шістьма категоріями:

Індекс якості повітря	*Що робити?*
Хороший 0–50	Чудовий день для активного відпочинку просто неба та слушний час, щоб скласти план дій, якщо прогнозують погіршення якості повітря.
Помірний 51–100	Деякі люди особливо вразливі до низьких рівнів забруднення частинками та повинні максимально зменшувати цей вплив. Наприклад, обмежте час перебування на вулиці й уникайте активної діяльності просто неба. Усі групи ризику мають стежити за появою симптомів.
Шкідливий для груп ризику 101–150	Групи ризику повинні вжити заходів, щоб зменшити вплив частинок. Обмежте час перебування на вулиці, уникайте активної діяльності просто неба, користуйтеся порадами для забезпечення чистішого повітря в приміщенні. Усі люди повинні стежити за проявами симптомів, щоб знизити вплив частинок у разі потреби.
Шкідливий 151–200	Усі люди повинні мінімізувати вплив частинок. Обмежте час перебування на вулиці, уникайте активної діяльності просто неба, користуйтеся порадами для забезпечення чистішого повітря в приміщенні.
Дуже шкідливий 201 300	Усі люди повинні мінімізувати вплив частинок. Залишайтеся вдома та фільтруйте повітря в приміщенні, щоб воно було чистішим. У разі потреби перейдіть в інше приміщення, де повітря чистіше.
Небезпечний >300	Усі люди повинні мінімізувати вплив частинок. Залишайтеся вдома та фільтруйте повітря в приміщенні, щоб воно було чистішим. У разі потреби перейдіть в інше приміщення, де повітря чистіше.

На зворотній сторінці розказано, як зменшити вплив, і наведено список груп із підвищеним ризиком.

Інформація про дим від лісових пожеж і захист здоров'я є dphhs.mt.gov/airquality/SmokefromFires.

Дії, щоб зменшити вплив частинок

Обмежте тривалість та інтенсивність фізичної активності просто неба.

Залишайтеся в приміщенні та забезпечте чистіше повітря:

Зачиніть вікна та двері, якщо не дуже жарко й це не завадить підтриманню безпечної температури.

Не забруднюйте повітря в приміщенні додатково (наприклад, димом від куріння сигарет або від палаючих свічок).

Фільтруйте повітря в приміщенні через систему ОВКП, портативний очищувач повітря HEPA (High Efficiency Particulate Air, високоефективне утримання частинок) або за допомогою самостійно виготовленого фільтра-вентилятора.

Налаштуйте кондиціонер на рециркуляцію.

Якщо ви не можете підтримувати чистоту повітря в приміщенні, перейдіть у приміщення з чистішим повітрям (наприклад, до місця проживання друга, громадського місця чи в безпечний район).

Якщо вам необхідно бути на вулиці, надягніть схвалений National Institute for Occupational Safety & Health (NIOSH, Національний інститут охорони праці) респіратор, що щільно прилягає до обличчя та захищає від дрібних частинок (наприклад, маску N95).

Групи з підвищеним ризиком

- Люди із захворюваннями
  - Захворювання легенів, як-от астма та Chronic Obstructive Pulmonary Disease (COPD, хронічне обструктивне захворювання легенів)
  - Захворювання серця
  - Респіраторні захворювання
  - Цукровий діабет
- Люди віком до 18 або від 65 років
- Вагітні жінки
- Люди, які працюють просто неба
- Люди, які не належать до білої раси
- Племінне та корінне населення
- Люди з низьким рівнем доходу

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Інформація про дим від лісових пожеж і захист здоров'я є на сайті dphhs.mt.gov/airquality/SmokefromFires

Incendios forestales y la calidad del aire interior

Durante un incendio forestal, el humo puede hacer que el aire exterior sea poco saludable para respirar. Las autoridades locales pueden aconsejarle que permanezca en el interior durante la presencia de humo asociada a un incendio forestal. Mientras permanece refugiado, parte del humo exterior puede entrar en su casa y afectar a la calidad del aire interior. Consulte estos recursos para saber qué medidas puede tomar para proteger a su familia del humo de los incendios forestales.

Escanee el código QR de abajo para acceder a cada recurso, o escanee el código de la derecha para explorar la página web de la EPA Incendios forestales y la calidad del aire interior, la cual está disponible en nueve idiomas.

Vídeo: Cómo preparar una habitación limpia

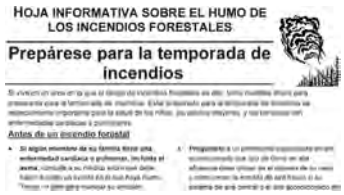
Pasar tiempo en una habitación limpia en el hogar puede ayudarle a reducir su exposición al humo mientras permanece en el interior. Este vídeo le mostrará cómo crear una habitación limpia para reducir la exposición de sus familiares al humo de los incendios forestales mientras están en el interior.

Infografía sobre el purificador de aire hecho por usted mismo

Si no tiene a su disposicion purificadores de aire portátiles o no son económicos, puede optar por utilizar un purificador de aire hecho por usted mismo. Esta infografía explica cómo crear usted mismo un purificador de aire.

Hojas informativas sobre la guia de incendios forestales

Esta serie de hojas informativas del programa AirNow de la EPA le ayudarán a prepararse para la temporada de incendios forestales y tomar medidas para reducir su exposición al humo y la ceniza.


HOJA INFORMATIVA SOBRE EL HUMO DE LOS INCENDIOS FORESTALES

Prepárese para la temporada de incendios

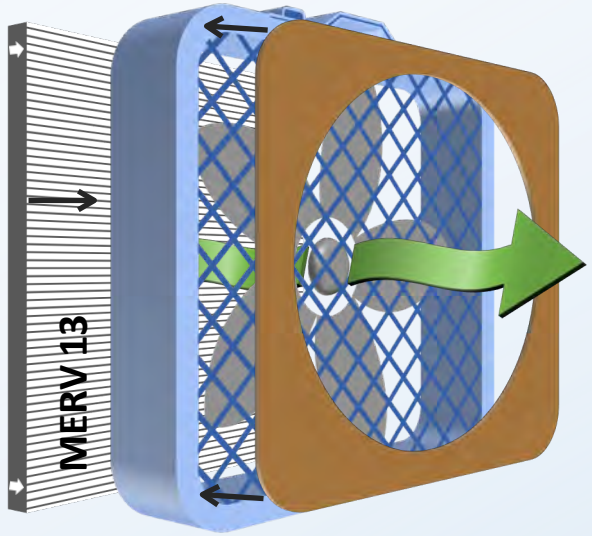
Antes de un incendio forestal

Incendios forestales y la calidad del aire interior en escuelas y edificios comerciales (en inglés)

Los incidentes relacionados con el humo pueden durar días y semanas, por lo que es importante que los propietarios y responsables de edificios dispongan de información sobre las mejores prácticas para reducir la exposición al humo que pueda entrar en escuelas, edificios comerciales o viviendas colectivas.

Para obtener más información sobre la protección de la calidad del aire interior durante emergencias y catástrofes, visite la página web de la EPA sobre **emergencias y calidad del aire interior** escaneando el código QR de la derecha.

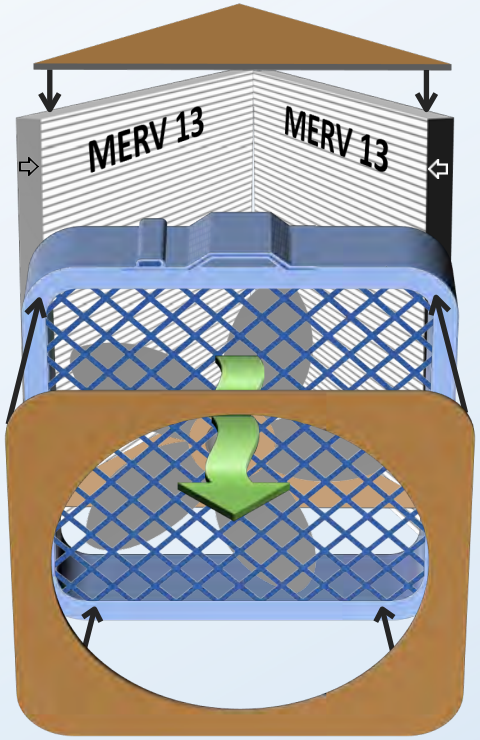
Diseños de Purificador de Aire Casero: Más allá de lo Básico



Bueno

Suministros básicos:

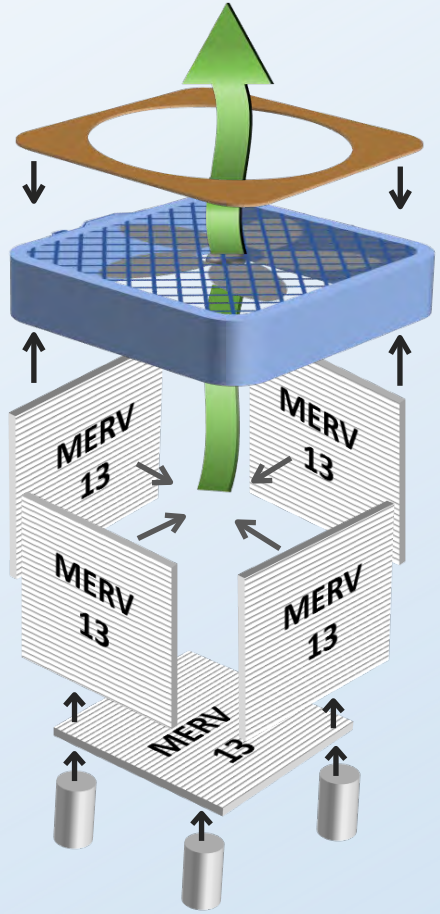
- Ventilador de caja de 20” x 20”
- Filtro de aire MERV 13 de 20” x 20” x 1” o 4”
- Cubierta de cartón de 20” x 20” (recortar al tamaño de las aspas del ventilador)
- Abrazaderas, cinta adhesiva o cuerdas elásticas



Mejor

Suministros adicionales:

- Dos - filtros de aire MERV 13
- Recorte triangular de cartón para la base en la parte superior



Óptimo

Suministros adicionales:

- Cuatro o cinco - filtros de aire MERV 13
- Si se usa un diseño de cinco filtros, utilice soportes para las patas (por ejemplo, bloques) para permitir el flujo de aire a través de la parte inferior

Maneras de Mejorar la Eficacia:

- Agregar una cubierta de cartón (mejora sin costo)
- Usar filtros más gruesos (filtros MERV 13 de 4" en lugar de 1")
- Usar varios filtros (de 2 a 5 diseños de filtro)

Recordatorios clave:

- Usar solo ventiladores certificados con la marca UL o ETL (modelo 2012 o más nuevo)
- Tener filtros de repuesto disponibles
- Cambiar los filtros cuando estén sucios