

# WILDFIRE HEALTH THREATS

## RISK FACTORS FOR FARMERS AND RANCHERS



Water quality changes (e.g. increased metal content) may make water unsafe for human and animals



Urgently moving livestock and materials from disaster areas may put you and the animals in danger



Heat exposure may cause fatigue, dizziness, heat stroke, and heat exhaustion



Pollutants and particulate matter (PM2.5) from smoke can worsen heart and respiratory conditions



Loss of homes, produce, and livestock can cause immense anxiety, stress and be extremely costly



Exposure to smoke can exacerbate illness and effect quality of life in susceptible populations

# RISK FACTORS\*

## RESPIRATORY DISTRESS

During wildfires air quality becomes drastically worsened due to smoke from burning materials and chemicals. Particulate matter also known as PM2.5 associated with air pollution and wildfires can be deposited deep into the respiratory tract inhibiting lung and cardiovascular function.



## HEAT ILLNESSES

Disaster recovery is physically strenuous, especially in hot temperatures. Intense heat exposure can cause heat related illnesses. Signs include excessive thirst, weakness, headache, loss of consciousness, nausea and vomiting, muscle cramps, and dizziness.



## STRESS

After a natural disaster, you're dealing with the extra stress of current conditions, along with the daily stress of farm and ranch operations. Natural disasters such as wildfires create a tremendous amount of additional stress and anxiety. You may develop major depression, generalized anxiety, and posttraumatic stress disorder.



## HUMAN & ANIMAL

Livestock sensing wildfire danger can become irritated, aggressive and panic. Relocating livestock during stressful times should be carefully planned to limit injury by fleeing animals. Deceased livestock can host and spread zoonotic disease so follow guidelines to prevent the spread of communicable disease.



## WATER QUALITY

Water quality can be affected due to materials and chemicals being burned. Flame retardants, pesticides, and organic material can make ground water not suitable for human or animal use.



## AT RISK INDIVIDUALS

Wildfire smoke affecting Air Quality can be especially dangerous to certain populations: Older adults are more susceptible to lung and heart disease. Children with developing respiratory systems can become ill. Pregnant women exposed to smoke can result in adverse birth effects.



## PREVENTION TIPS

- Use only NIOSH approved N95 (or better) respirators that have been properly fitted
- Keep children and seniors inside if possible as they are greater affected by air pollution

- Take frequent rest/ water breaks
- Wear light colored clothing
- Use the buddy system to identify heat related symptoms
- Rest in an air conditioned area and hydrate
- Understand signs and symptoms

- Be pro-active, recognize potential signs of stress, anxiety, or depression
- Know your local resources where you can go for help
- Adequate sleep (7-8 hours) is critical to the recovery process

- Decide if animals can be sheltered or need relocation
- Plan relocation ahead of time to avoid stress and confusion
- Tag and free livestock as a last resort
- Follow state guidance on carcass removal

- Sample & test water
- Conduct well and pump inspection
- Perform emergency disinfection of wells
- Follow health department drinking and water use advisories

- Use only NIOSH approved N95 (or better) respirators that have been properly fitted
- Keep children and seniors inside if possible as they are greater affected by air pollution
- Follow healthcare provider directions

## FACT SHEETS

[Wildfire Smoke Particulate Matter](#)

[Heat Illness](#)

[Mental Health](#)

[Wildfires & Livestock Zoonotic Disease](#)

[Wildfire & Water Quality](#)

[CDC Wildfires Resource](#)

[Research Highlight: Health Risks to Farmers](#)

\*This list of risk factors is not exhaustive. For example, other risks may include electric shock, breathing, falls and structural hazards.

FOR MORE INFORMATION VISIT [AGRISAFE.ORG/WILDFIRE](https://www.agrisafe.org/wildfire)

