

# Wildfires and industrial fires

Advice for travellers affected by wildfires or industrial fires during their trip

## Key messages

- **Most travellers are at extremely low risk of being affected by wildfires or industrial fires.**
- **If travelling to areas affected or likely to be affected by wildfires or industrial fires be prepared, check FCDO and local authority advice and follow their guidance.**
- **Individuals with pre-existing health conditions should seek health advice prior to travel.**
- **In the event of a wildfire, monitor local media, exercise caution, and follow evacuation orders.**
- **In the event of a wildfire or industrial fire, try to minimise time you spend in the areas affected by smoke.**

## Overview

Wildfires are uncontrolled fires in natural areas such as forests, grasslands, or prairies with a flammable substance (e.g., peat-rich soils). Wildfires are unpredictable, fast moving and can consume everything in their path. They may occur naturally (e.g. ignited by lightning) or be caused by human activity. Risk of wildfire increases during extremely dry periods, droughts and when there are strong winds. Wildfires are seasonal in some countries, cause deterioration of air quality and disrupt transport, communications, gas, electricity and water supplies. They are also responsible for human fatalities and loss of animals, crops and property [1].

In addition to the danger of burns from wildfires, smoke exposure during wildfires can have health effects such as eye, skin, throat and lung irritation [2-5], cause inflammation and increase the likelihood of respiratory infections. Wildfires can impact on mental health and psychological wellbeing [1]. Inhalation of fine particles, such as those in smoke can worsen existing respiratory conditions such as asthma or chronic obstructive pulmonary disease (COPD) [5, 6]. Inhalation of smoke has health implications for those most vulnerable to air pollution including children, older people, individuals with pre-existing cardiovascular or respiratory conditions and pregnant women

[7].

Wildfires simultaneously impact weather and climate by releasing large quantities of carbon dioxide, carbon monoxide and fine particulate matter into the atmosphere, resulting in poor air quality [1]. As well as immediate health effects associated with short-term exposure to wildfire and smoke, wildfires which continue for extended periods of time could potentially lead to long-term exposure to poor air quality. Long-term exposure to poor air quality also impacts adversely on cardiovascular and respiratory conditions [7].

Due to the impact of climate change, the frequency of wildfires is rising [1]. In recent years, extreme fire events have been reported worldwide and are increasing in some regions, with a corresponding rise in the number of fatalities [8].

Industrial fires are most likely to occur in facilities where there is flammable material present.

As well as the immediate danger of burns, exposure to smoke from wild or industrial fires may have short-term health effects on respiratory (breathing) or cardiac (heart) function [6]. The longer-term health risks of such an exposure to smoke are likely to be low.

## **Risk for travellers**

Most travellers are unlikely to encounter a wildfire or industrial fire; [pregnant women](#), children, older adults and people who are immunosuppressed or have heart and lung problems are at greatest risk from smoke [2].

The greatest risk is for local populations. However, occasionally wildfires encroach on tourist destinations resulting in the need for emergency evacuation from wildfire areas [9, 10].

## **Before travel**

If you must travel to a region affected by fires, be prepared; check [Foreign, Commonwealth and Development Office travel advice](#) and follow any guidance provided.

If you have a pre-existing condition that makes you more vulnerable to the effects of smoke containing substances from wild or industrial fire, discuss your travel plans with your healthcare provider. Travellers with pre-existing cardiovascular and respiratory conditions, such as asthma, should always carry any necessary medication or inhalers with them.

Check our [Country Information pages](#) for other health advice. Get comprehensive [travel health insurance](#).

## **During travel**

If you are in an area under a fire warning, get to safety and follow the instructions of local

authorities. You might be advised to evacuate or shelter; if trapped, call the emergency services number for the country you are in and listen for emergency information and alerts [1].

Listen to news, weather and public announcements from fire and rescue services, police, and other relevant agencies, to learn about current evacuation orders [2]. Follow the instructions of local officials or staff in public buildings about when and where to evacuate. Use designated evacuation routes and take only essential items with you.

## Public health advice during a fire

- Check local air quality reports if available. Listen and watch for news or health warnings about smoke from wild or industrial fires.
- Keep indoor air as clean as possible if advised to stay indoors, with windows and doors closed. Run an air conditioner but keep the fresh-air intake closed and the filter clean to prevent outdoor smoke from getting inside. If you do not have air conditioning, due consideration must be given to heat stress during hot weather; if it is too hot to stay inside with closed windows, seek shelter in a designated evacuation centre or away from the affected area.
- Limit time outdoors and avoid strenuous physical activity outside. Only go outside when essential.
- In hot weather draw curtains and close blinds to limit direct sunlight heating up surfaces; use a fan to recirculate air within the house; wear light clothing; stay hydrated with cool drinks.
- Avoid activities that increase indoor pollution, such as using aerosol sprays, smoking, cooking, burning candles, fireplaces, gas, propane, wood-burning stoves or fireplaces. Vacuuming stirs up particles, contributing to indoor pollution [2].
- Follow your doctor/healthcare provider's advice about medicines and existing heart or lung conditions. If you have medicines for these conditions, make sure you always carry them with you, and seek medical advice if your symptoms worsen.
- If you choose to use respiratory protection such as a facemask, you should make sure the mask fits well and you know how to wear it properly. Facemasks designed to filter particles are usually not effective for gases. When you wear respiratory protection, the effectiveness depends particularly on two factors:
  - How effective the mask or material is at filtering particles (stopping the smoke/ash particles from passing through the material); and
  - The fit of the mask or material to the face.
- A number of factors need to be considered if using of masks; those that are EU standards P2 or P3 ([US standards N95 or N98](#)) are most effective. Cloth/paper masks do not offer protection against smoke [2, 11, 12]. Care should be taken to ensure that it is not harder to breathe when using any form of respiratory protection. People with existing respiratory or cardiovascular disease should talk to a health professional about whether facemasks are suitable.
- If you must drive through smoke, keep windows closed and switch air conditioning to recycle or recirculate air.

- If your home is uncomfortable, and it is safe to do so, consider taking a break away from the smoke. Visit an unaffected area or visit a local air-conditioned building such as a library, community centre or shopping centre.
- Once the smoke has moved away, consider opening doors and windows to ventilate the property and allow the house to cool down.
- Environmental samples may be collected during a fire to identify and monitor air and waterborne contaminants, or afterwards to determine if contamination of the surrounding area has occurred. In these situations, you should follow local advice, but also take sensible food and water precautions.

## After travel

Travellers who believe they have been affected by exposure to smoke from fires should consult their healthcare provider.

## Resources

- [European Environment Agency: Forest fires in Europe](#)
- [Global Forest: Watch Fires](#)
- [National Geographic: Wildfires](#)
- [Public Health England: Health matters: air pollution](#)
- [NICE Indoor air quality at home](#)
- [United Nations: Wildfires](#)
- [US Centers for Disease Control and Prevention: Wildfires](#)
- [World Air Pollution: Real-time Air Quality Index](#)

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