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Global wildfires

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A wildfire is an unplanned fire in a natural area such as forest, grassland or prairie [1]. Wildfires are likely to be unpredictable, fast moving and often consume everything in their path. Wildfires may occur naturally (i.e. be ignited by a lightning spark) or caused by humans. The risk of a fire occurring increases during dry periods, droughts and where there are strong winds; wildfires occur seasonally in some countries.

Because of the impact of global warming on climate change, it is predicted that the frequency of wildfires will increase [2]. During recent years, wildfires have occurred in many areas of the world including; the [Arctic region](#), [Australia](#) [including [Tasmania](#)], [Bolivia](#), [Brazil](#), notably the Amazon basin region, [Canada](#), [Canary Islands](#), [Greece](#), [Indonesia](#), [Russia](#), and the [United States](#). Smoke can linger in the area of the fire such as in South America, where smoke from the Amazon regions affected a large proportion of the continent, including [Bolivia](#), [Chile and Peru](#). Smoke can also spread to other areas as has been in the case in the Russian Siberian region where smoke has spread to the [United States and Canada](#).

As well as the immediate danger of burns, exposure to smoke from wild fires may have short or long term health effects on respiratory (breathing) or cardiac (heart) function [2].

Advice for travellers

If travelling to an area that is affected by fires, be prepared; check the [Foreign and Commonwealth Office website for current travel advisories](#) and follow any advice provided.

If you have a pre-existing condition that might make you more vulnerable to the effects of smoke, discuss your travel plans with your healthcare provider.

Travellers should also check our [Country Information](#) for other health advice.

Get comprehensive [travel health insurance](#) that covers everything you want to do and any health conditions that you have.

If the area you are in is 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 on the number for the country you are in and listen for emergency information and alerts [1]. Listen to the news and public announcements to learn about current evacuation orders. Follow the instructions of local officials or staff in public buildings about when and where to evacuate. Follow designated evacuation routes and take only essential items with you.

Protect yourself from smoke

Smoke from fires contains a mixture of gases and fine particles which can irritate the eyes, the skin and respiratory system [3] and worsen chronic (long standing) heart and lung conditions [4]. Those at greatest risk from smoke are people who have heart or lung conditions, pregnant women, older adults and children [5].

- Check local air quality reports if available. Listen and watch for news or health warnings about smoke.
- Limit the time you spend outdoors and avoid strenuous physical activity. Only go outside when essential.
- Keep indoor air as clean as possible if you are advised to stay indoors. Keep 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 an air conditioner and it is too warm to stay inside with the windows closed, seek shelter in a designated evacuation centre or away from the affected area.
- Avoid activities that increase indoor pollution. Burning candles, fireplaces, or gas stoves can increase indoor pollution. Vacuuming stirs up particles already inside your home, contributing to indoor pollution. Smoking also puts even more pollution into the air.
- Follow the advice of your doctor or other healthcare provider about medicines and any existing heart or lung conditions
- Pay attention to any health symptoms if you have lung or [heart conditions](#), or are [pregnant](#). Get medical help if you need it or if your symptoms worsen.
- Do not rely on dust masks for protection. Paper “comfort” or “dust” masks commonly found at hardware stores are designed to trap large particles, such as sawdust. However a properly fitted face mask that complies with EU standards P2 or P3 or the [US standards N95 or N98](#) may provide some protection [6,7,8].
- Motorists who have to travel through the smoke should keep windows closed and switch air conditioning systems 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 area not affected by the smoke 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.

Resources

- [Global Forest Watch Fires](#)
- [National Geographic. Wildfires](#)
- [United Nations: Wildfires](#)
- [Centers for Disease Control and Prevention: Wildfires](#)
- [UNICEF: Press Release. 10 million children risk air pollution due to wild forest fires](#)
- [Public Health England: Health advice for residents affected by Saddleworth Moor fire](#)
- [Environment Protection Authority Victoria: Bushfire smoke and your health](#)
- [New South Wales Government: Bushfire Protection](#)

References

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3. [Public Health England. Health effects of explosions. 8 July 2005 \[Accessed 8 January 2020\]](#)
4. [Averett, N. Smoke Signals: Teasing Out Adverse Health Effects of Wildfire Emissions. Environmental Health Perspectives; 2016; 124\(9\). \[Accessed 8 January 2020\]](#)
5. [Estimated global mortality attributable to smoke from landscape fires. Johnston FH, Henderson SB, Chen Y, et al. Environ Health Perspect. 2012;120:695-701. \[Accessed 8 January 2020\]](#)
6. [BC Centre for Disease Control. Evidence Review: Using masks to protect public health during wildfire smoke events. 31 March 2014 \[Accessed 8 January 2020\]](#)

7. [Interventions to reduce personal exposures to air pollution. A primer for health care providers. Global Heart 2019; March; 14; \(1\) \[Accessed 8 January 2020\]](#)
8. [McDonald F, Horwell C, Wecker R et al. Facemask use for community protection from air pollution disasters: An Ethical overview and framework to guide agency decision making. International Journal of Disaster Risk Reduction 43; 2019; October \[Accessed 8 January 2020\]](#)