

Cystic fibrosis, smoke and air quality

Smoke and air pollution can have a negative effect on the general population. This fact is compounded for people with risk factors such as cystic fibrosis, diabetes, pregnancy, having COVID-19, or being young or elderly.^{2,4,5,6}

With our changing climate, it is expected that British Columbia will see an increase of wildfires and air pollution¹, and this makes it important to understand what you can do to reduce your risk.



Version 1.0
July 2023

Air quality and effects on your health

The small particulate matter produced by smoke and pollution can travel into your lungs, causing irritation and inflammation, increasing your risk of exacerbations⁶.

In most instances symptoms are mild, but can include:

- Sore throat
- Eye irritation
- Runny nose
- Cough
- Increased phlegm
- Difficulty breathing
- Headaches²

More serious symptoms can include:

- Shortness of breath
- Severe cough
- Dizziness
- Chest pain
- Heart palpitations²

What you can do

The best way to reduce the risk and protect against the harmful effects of smoke and air pollution is to limit exposure times and look for cleaner air. This can include:

- Using a portable HEPA air filter cleaner in your home
- Use public spaces such as a shopping mall or library as they tend to have cooler, filtered air
- Keep windows and doors closed
- Stay inside
- Set air conditioning/heat pump to recirculate
- Limit your time outdoors
- If you are outdoors, consider the use of a N95 mask^{2,3}

You can keep up to date on the local air quality status in your area by visiting the [Air Quality Health Index](#) (AQHI). The AQHI is based on the number of smoke particles found in the air at a particular location.

It is also important to understand when you are at risk. The following table can assist in determining when to modify behaviour.

1 hour concentration of Particulate matter	Provincial AQHI	AQHI RISK Category	Health Message for People at Higher Risk
0 – 10	1	LOW	Enjoy your usual activities
11 – 20	2		
21 - 30	3		
31 - 40	4	Moderate	Consider reducing or rescheduling strenuous outdoor activities if you experience any symptoms
41 – 50	5		
51 – 60	6		
61 - 70	7	HIGH	Reduce or Reschedule strenuous activities outdoors
71 - 80	8		
81 - 90	9		
91 - 100	10		
101 +	10+	VERY HIGH	Avoid Strenuous Activities Outdoors

TABLE 1 *Modified from BCCDC Wildfire Factsheet¹

Ensure you have your rescue medications with you in all circumstances. If you are unable to get symptoms under control, seek medical attention through either your clinic, or a local medical facility.

Air quality and mental health

It is important to consider that a person's concern related to chronic disease and poor air quality can lead to stress and anxiety. In these cases, remember that you are not alone. Eating well, exercising and having adequate amounts of sleep can help control stress. When needed, reach out to others – family members, friends, a medical professional, or your local cystic fibrosis clinic.³ There are also crisis lines available:

- **BC Mental Health Support Line:** 24 hours a day at 310-6789 (no area code)
- **Indigenous Crisis Line:** 1-800-588-8717

More information

- For further information on how you can combat smoke and air pollution, please see:
 - [BCCDC wildfire fact sheet](#) (PDF)
 - [BCCDC wildfire smoke](#) (website)
 - BC Government [wildfire preparedness guide](#) (PDF)

References

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