

My Wildfire Smoke and Extreme Heat Action Plan

Name: _____ Patient Name _____ Date: xx / xx / xxxx (when plan filled out)

Care Professional Name: _____ (name) _____ Emergency Contact Name: _____ (name) _____
Phone #: (xxx) xxx-xxxx Phone #: (xxx) xxx-xxxx

Wildfire smoke and extreme heat can affect your health, but there are steps you can take to protect yourself. This action plan will help you *prepare and respond*.

All in-text links have a corresponding QR code to the right

I KNOW MY AIR QUALITY AND TEMP

- Ask your patient to identify (and circle or highlight) which will be their primary way to receive alerts/ info, in addition to a back-up should they lose internet or cell service.


I will receive emergency alerts

1. phone (heat: emergency alerts active)

- Canada's extreme heat alert system is mandatory and activated on LTE or 5G network capable phones. Check to see if your patient's cell will receive alerts:
<https://www.alertready.ca/wireless/>
 - For more info on how emergency alerts work in BC, and when a patient may not receive an alert (e.g. not connected to an LTE cellular network at the time the emergency alert is issued), you may review the following link:
<https://www2.gov.bc.ca/gov/content/safety/public-safety/emergency-alerts/how-alerts-work>

2. email (Air Quality Subscription Service)

- Direct/assist sign-up in all relevant regions: <https://aqss.nrs.gov.bc.ca/subscription.html>
- **Metro Vancouver & Lower Fraser Valley** have their own subscription service, with the following sign-up link: <https://metrovancouver.org/services/air-quality-climate-action/mailling-list>

 If I can see or smell smoke, I know the risk is high to very high
Alert = Risk, but NO Alert ≠ NO Risk

- Teach patient that while clear skies do not always indicate healthy air, smoky skies (see or smell) are a sign of poor air quality
 - Similarly, an emergency alert means that smoke and/or temperature have reached a level that the province or Canada has identified to issue an alert, and precautions should be taken. However, just because there has not been an alert released does not mean that conditions are safe for everyone.

I can check smoke and weather conditions at least daily

1. phone (WeatherCAN app, Hello Weather)

- If the patient has a smart phone, advise or assist them in installing the WeatherCan app.
<https://www.canada.ca/en/environment-climate-change/services/weather-general-tools-resources/weathercan.html>

and/or

- Assist your patient in determining their local code for [Hello Weather](#); they may dial this number at any time to receive information on weather, including air quality and heat alerts. Write this code into the action plan within the space provided.





2. online (BC Air Quality Reports for smoke, BC Weather Alerts)
- BC Air Quality Reports (<https://www.env.gov.bc.ca/epd/bcairquality/data/aqhi-table.html>) will tell the patient AQHI in their area, providing more detailed information than BC Weather Alerts alone.
- and**
- BC Weather Alerts (<https://weather.gc.ca/>) issues heat alerts and an alert that skies are/will be smoky but does not provide more air quality details.
3. radio channel: _____AM/FM
- Phone and online are recommended, however if unavailable (routinely or during an event), radio may be considered. Alert patient that radio reports, outside of formal emergency alerts, may not derive from government regulated data and information sources.
- Do they know where to get information and resources? Who is a trusted community member or service that can support them?
- If I cannot access this information on my own, I will call: (e.g. family, friend, 8-1-1) at (xxx) xxx-xxxx

MY HOME AND SUPPLIES ARE READY

- Help your patient understand their personal risk. Having one or more risk factor will place them into a higher risk category for activity recommendations later in the plan. Risk factors include:
 - Any lung disease (including asthma, emphysema)
 - Any heart disease (including high blood pressure, angina, stroke)
 - Other chronic diseases (including diabetes, kidney disease)
 - Physical or mental disabilities (including dementia)
 - Mental illness
 - Social isolation/living alone
 - Pregnant persons
 - Older (especially 65+ years) or younger (especially children and infants) age
 - Jobs that require outdoor work
 - Poor quality housing or no housing
 - Taking certain types of medication that may reduce the body's ability to cool itself (including beta blocker) or medications that increase body temperature (antipsychotic)
 - People who use substances, including alcohol
- Other important factors to consider in making a plan include where a patient lives in the province, internet access, health literacy, and language barriers.
- Encourage your patients to do any/all of the activities below **well** ahead of heat and smoke to ensure preparedness and that there is an adequate supply of items (e.g., fans, air cleaners in stock at stores).
- There may be some patients that can only do one or two of these things; let them know that having read and worked through this they are already more prepared this season. For those things that they will not be able to acquire, consider crossing them off. **The goal is to empower your patient with the knowledge and the resources they have and remind them that each thing they now know and can do makes them that much more prepared.**

If applicable, I have....

- extra medications (pharmacy delivery contact: (pharmacy name/pharmacist/phone #))
- I asked my pharmacist/doctor about any of my medications that might affect my reaction to heat

- Review the medication list. There are many medications themselves which can be damaged by exposure to heat (including but not limited to insulin), may make a person less able to tolerate or self-regulate temperature with heat (including but not limited to anticholinergics) and may increase the risk of dehydration (including but not limited to diuretics). An in-depth resource reviewing these medications can be found here: <https://ncceh.ca/content/drugs>
- Check if they need a renewal or new prescriptions. Consider providing a back-up supply if appropriate. Do they need another appointment closer to the start of the season to reassess this?
- **Remind patients not to self-adjust medications unless it is under either your advice or the advice of another appropriate healthcare professional.**



extra food (grocery/food delivery contact: (delivery service number/friend/family))

- Ask if they need any additional support for supplies, such as referral to a social worker, or other services to support their needs.

home thermometer and extra batteries as needed

window coverings to block sun and heat

- Ask if they are able to install window coverings or have a friend/family assist. Do they feel comfortable asking a building manager to provide or install window coverings?
- A blanket or cardboard can also be used if the other coverings are not available.

heat pump, or an air conditioning unit and/or fan

- \$1,000 or 50% of the amount paid for an air conditioner (whichever is less), for a person with a severe chronic ailment, disease, or disorder, can be claimed on tax returns as a medical expense (**they will need a prescription**). <https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/about-your-tax-return/tax-return/completing-a-tax-return/deductions-credits-expenses/lines-33099-33199-eligible-medical-expenses-you-claim-on-your-tax-return/details-medical-expenses.html>
- If unable to purchase an air conditioner or heat pump, explain the importance of monitoring indoor temperatures and moving to a cooler air space if the indoor temperature is high.
 - For people at higher risk from heat, risk for heat-related illness may increase at indoor temperatures over 26 °C (78 °F) and may significantly increase at indoor temperatures over 31 °C (88 °F).
- **Fans may not effectively reduce body temperatures or prevent heat-related illness in people at risk.** Do not rely on fans as the primary cooling method. At night, when outdoor temperature is cooler than indoors, consider using fans to bring cool air inside from windows. Kitchen and bathroom fans vent outside of living spaces and can be used to move hot air outside (info sheet #19).
- Caution your patient that portable air conditioners may pull outside air inside, so in the setting of a combined heat/smoke event this may increase smoke exposure. It is important to address both where possible, however for most people at risk, overheating is more dangerous. It is important to prioritize staying cool (info sheet #20).

air cleaner (with HEPA filter)

- Reference info sheets #3 (type to purchase) and #8 (home-made), links at the end of this document, if they have questions.
- If they have a commercial air cleaner, do filters need to be replaced? (Newer models typically have an indicator light to signal when the filter should be replaced)
- An air filter, cleaner, or purifier used by a person to cope with or overcome a severe chronic respiratory ailment or a severe chronic immune system disorder can be claimed on tax returns as a medical expense (**they will need a prescription**). <https://www.canada.ca/en/revenue->

1. Having my mask ready for smoke
2. Making a to-go bag in advance
(water, snacks, meds, essentials)
3. Using my safe transport options

- *Help your patient identify at least two safe transit options, and note these in the provided box*

Before completing this next section, work with your patient to consider what locations are relevant to them and their family, where they do or could spend time, and whether those spaces have cool/cleaner air?

- *Examples of indoor spaces might include: community centres, libraries, malls, and other public spaces likely to have cool/cleaner air.*
 - *Ask about common spaces in any rental units (e.g., laundry rooms, rec rooms, gardens) and encourage patients to inquire with building managers to learn whether these spaces can be used as shared cool/cleaner air spaces.*
 - *During heat events, sometimes it is safer to be in outdoor shaded spaces (e.g. shaded trails/ parks)*
 - *Specially consider sports or other recreational activities (see back page of action plan for individualized health messaging)*
 - *Some communities in BC open cooling centres or cleaner air spaces but some communities do not. Call the local government to ask or check for additional information on their website, facebook page or twitter account. Sometimes information is not added until the event is declared*
- *Spending time in a cool space allows the body to rest and take a break from fighting the heat. It is recommended that people spend at least two hours at a time in a cool space, but ideally they should spend as much time as possible, especially in the afternoon and early evening when indoor temperatures peak. People may feel refreshed from the time spent in the cool space, but once someone returns to a hot environment, the risk of heat-related illness returns. After leaving a cool space, people should continue monitoring the indoor temperature of their home and take actions to cool their body.*
 - *A note on indoor and outdoor temperatures: Outdoor temperatures peak around 2-4pm, indoor temperatures peak around 8-10pm and indoor environments may be most dangerous overnight. Seek cooler spaces during the day but especially overnight if the indoor temperature is high. If it is safe, your patient may consider sleeping outdoors if it is cooler.*

If I need cooler and/or cleaner air, I will go to:

COOL AIR (day) _____ location _____ / (night) _____ location _____
 CLEANER AIR (day) _____ location _____ / (night) _____ location _____
 COOL & CLEANER AIR (day) _____ location _____ / (night) _____ location _____

Non-Emergent Questions: Call 8-1-1 or your Family Doctor
Medical Emergency: Call 9-1-1

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Overheating is more dangerous than smoke for most people at risk.
During an event, call your buddy *daily!*

Wildfire Smoke

	1-Hour PM _{2.5} (µg/m ³)	BC AQHI	AQHI Risk Category	Health Message for <u>ME</u>
	0-10	1	LOW (blue)	<i>Normal air quality - continue normal activities.</i>
	11-20	2		
	21-30	3		
	31-40	4	MODERATE (yellow/orange)	
	41-50	5		
	51-60	6		
	61-70	7	HIGH (pink/red)	
	71-80	8		
	81-90	9		
	91-100	10		
	101+	10+	VERY HIGH (maroon)	

(AQHI = Air Quality Health Index; PM_{2.5} = fine particulate matter)

***If you have a respiratory infection you may have a *higher* risk from wildfire smoke: take extra precautions.

- Review the messages for general and at-risk groups. For wildfire smoke specifically, people who should follow the health message for “people at higher risk” are those with:
 - Lung disease (including asthma, emphysema, etc.)
 - Other chronic diseases (including heart disease, diabetes, kidney disease, etc.)
 - Pregnancy
 - Older (especially 65+ years) or younger (especially children and infants) age
- Help your patient determine which group (Higher Risk or General Population) they are in for wildfire smoke, and use the table below (from reference link #4, at end of document) to help them fill in their activity levels at different air quality measures.

	1-Hour PM _{2.5} (µg/m ³)	BC AQHI	AQHI Risk Category	Health Message for People at Higher Risk	Health Message for General Population
	0-10	1	LOW (blue)	Enjoy your usual outdoor activities.	Enjoy your usual outdoor activities.
	11-20	2			
	21-30	3			
	31-40	4	MODERATE (yellow/orange)	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms.	No need to modify your usual outdoor activities unless you experience symptoms.
	41-50	5			
	51-60	6			
	61-70	7	HIGH (pink/red)	Reduce or reschedule strenuous activity outdoors.	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms.
	71-80	8			
	81-90	9			
	91-100	10			
	101+	10+	VERY HIGH (maroon)	Avoid strenuous activity outdoors.	Reduce or reschedule strenuous activity outdoors, especially if you experience symptoms.

- Discuss activities that the patient engages in during the summer months and what the decision-making process looks like for them and record it in the table
- During an event, if windows closed, avoid or reduce activities that may increase pollution indoors, such as frying foods, sweeping or vacuuming, cooking/baking
- Ask if your patient is aware of the UNBC Purple Air monitoring system. Note that this is not a regulatory quality measurement tool and there is some degree of inaccuracy. However, there may be monitors closer to help in decision-making processes: <https://cyclone.unbc.ca/aqmap/>

***If you have a respiratory infection you may have a *higher risk* from wildfire smoke: take extra precautions.



Extreme Heat



Body		Home/Indoor	
36.5-37°C (97.7-98.6°F)	Normal, monitor for symptoms	Usually safe, monitor	Less than 26°C (<78.8°F)
37.1-39°C (98.7-102.2°F)	Above normal; possible heat-related illness	Risk increasing	26-31°C (78.8-87.8°F)
Over 39 °C (>102.2°F)	Seek immediate medical help	High risk; leave for cooler air	Over 31 °C (>87.8°F)

- There is no one set outdoor temperature for all of BC that will be used for heat alerts. A “Heat Warning” means that the daytime and overnight temperatures are higher than usual, but they are not getting hotter every day. An “Extreme Heat Emergency” means that daytime and overnight temperatures are higher than usual, and they are getting hotter every day.
- Provide instructions based on the knowledge of your patient, their resources, and their ability to react (cognitively, physically, and from a resource perspective)
- For example:
 - (CASE 1), for a high-functioning 50 y.o. with COPD living with a healthy partner, with a home temperature 26-31°C who has a single family home and access to fans, a thermometer, window coverings, and cool water/ice/refrigeration, you may consider activating home cooling protocols, monitoring home and body temperature, and seeking medical care if the patient’s body temperature >38 °C OR relocation if there is inability to maintain home temperature lower than the high risk range (or a lower threshold)
 - (CASE 2), for a 75 y.o. with multiple medical comorbidities and mild cognitive impairment, living alone or with an aging partner, with shades, fans, and a digital thermometer, you may consider a lower threshold for recommending relocation to a cooling shelter or alternate location, such as if the temperature rises more than 2 degrees above the “usually safe threshold” despite implementing cooling measures and with an extreme heat warning in effect

- Regardless of thermometer reading or lack thereof, patients with concerning symptoms should be encouraged to seek medical evaluation. Review these symptoms with your patient

SYMPTOMS	Poor Air Quality	Extreme Heat
Sore throat	✓	
Eye Irritation	✓	
Runny Nose/Cough/Phlegm	✓	
Wheeze	✓	
Headaches	✓	✓
Confusion		✓
Dizziness/Unsteadiness		✓
Nausea/Vomiting		✓

If any of these symptoms do not quickly resolve, or the patient develops new or worsening shortness of breath, severe cough, dizziness, chest pain, heart palpitations, fainting, confusion, less coordination, hot red skin, or nausea/vomiting, then they should seek call 911 immediately.



Cooling Your Body

- (1) Cool your home or relocate to a cooler place
- (2) Make ice and prepare jugs of cool water
- (3) Take off extra layers of clothing to expose skin
- (4) Cool damp towels in the fridge to use
- (5) Take cool showers
- (6) Sit with feet in cool water
- (7) Use a spray bottle to mist cool water on your skin
- (8) Limit physical activity

Cooling Your Home



- (1) Use thermometer to monitor indoor temp, check batteries
- (2) Turn on air conditioner*
- (3) Turn on fans to move cool air into living spaces
- (4) Use shades, curtains, blankets, and/or cardboard to block sunlight from windows
- (5) Close windows during heat of the day
- (6) Open windows at night or with cool breeze*
- (7) Turn off appliances that generate heat

*if outdoor air quality is poor, #2 and #6 may worsen indoor air quality; consider carefully.

- Consider placing cool towels around the back and sides of the neck, or at other pulse points (e.g. wrists, etc) when safe to do so for potential enhanced effectiveness.
- Review these actions with your patient to confirm understanding. Remind patients that portable AC devices pull some outside air indoors, which may increase their exposure to smoke on smoky days. *Caution that portable air conditioners pull outside air inside, so in the setting of a combined heat/smoke event this may increase smoke exposure. It is important to address both where possible.*

- The province of BC advises the following: **For most people, exposure to extreme heat is a bigger risk to health than exposure to wildfire smoke. If you cannot get cool inside, go outside even if there is smoke.**
<https://www2.gov.bc.ca/gov/content/safety/emergency-management/preparedbc/know-your-hazards/severe-weather/extreme-heat> Ideally relocate to somewhere that is both cool and has clean air.



Wildfires (BCCDC)

1. [Health effects of wildfire smoke](#)
2. [How to prepare for the wildfire smoke season](#)
3. [Portable air cleaners for wildfire smoke](#)
4. [Wildfire smoke and air quality](#)
5. [The composition of wildfire smoke](#)
6. [Wildfire smoke and outdoor exercise](#)
7. [Wildfire smoke and Air Quality Health Index \(AQHI\)](#)
8. [Home-made box air fan filters](#)
9. [Face masks for wildfire smoke](#)
10. [Translated Content](#)

Extreme Heat

11. [VCH: Extreme Heat Poster](#)
12. [HealthLinkBC: Beat the Heat](#)
13. [BCCDC: Preparing for Dangerous Heat](#)
14. [Health Canada: Staying Healthy in the Heat](#)
15. [PreparedBC: Extreme Heat Preparedness Guide](#)
16. [Health Checks During Extreme Heat Events](#)
17. [Protect yourself during hot weather – Cool Kits](#)
18. [Translated Heat Resources](#)
19. [Fans in Extreme Heat FAQ](#)

Combined

20. [Wildfire Smoke During Extreme Heat Events](#)