

COVID-19 (Novel Coronavirus) Extreme Heat

Extreme Heat During COVID-19

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Signs of Heat Illness

What heat illness looks like:

- heavy sweating
- muscle cramps
- fatigue
- dizziness or fainting
- headache
- nausea or vomiting
- extreme thirst
- decreased urination
- rapid breathing or heartbeat
- changes in behaviour such as confusion, lack of coordination or hallucinations

COVID-19 and Extreme Heat

Populations vulnerable to both heat stress and COVID-19:

- Older people (over 65 years and especially over 85 years old)
- People with underlying health conditions
 - Cardiovascular disease
 - Pulmonary disease
 - Kidney disease
 - Diabetes / obesity
 - Mental health issues (psychiatric disorders, depression)
- Essential workers who work outdoors during the hottest times of the day or who work in places that are not temperature controlled
- Health workers and auxiliaries wearing personal protective equipment
- Pregnant women

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- People living in nursing homes or long-term care facilities, especially without adequate cooling and ventilation.
- People who are marginalized and isolated (experiencing homelessness, migrants with language barriers, old people living alone) and those with low income or inadequate housing, including informal settlements
- People on medications that impair thermoregulation

Recognizing heat stress is sometimes difficult, especially when some signs are similar to the symptoms of COVID-19. Identifying heat illness vs. COVID-19 is critical to facilitate accurate testing, diagnosis, and treatment, and prevent contraindications of treatment.

Heat stress can present a range of symptoms that mimic early COVID-19 symptoms:

- Headache
- Exhaustion
- Raised body temperature
- Excessive sweating
- Body cramps

Extreme Heat and PPE

The COVID-19 pandemic has resulted in large numbers of essential workers who may be required to wear additional personal protective equipment (PPE) to safely treat and interact with patients and clients. Wearing PPE and working in hot environments for long periods of time increases risk of heat stress for healthcare workers and other first responders.

Prolonged exposure to heat may also affect worker's mental capacity, productivity, and wellbeing. Healthcare and other essential workers must be protected both from infection and heat stress so that they can continue to perform their duties effectively throughout the crisis.

Managing heat if you wear PPE at work:

1. Learn how to identify symptoms of heat-related illness in yourself and others.
 - Heat stress can present a range of symptoms that mimic early COVID-19 symptoms:
 - Headache
 - Exhaustion
 - Raised body temperature

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- Excessive sweating
 - Body cramps
 - Be aware of your individual vulnerability level as a result of your age, physical condition, health problems, medications, pregnancy or lack of heat-acclimatization.
2. Before work: start cool
 - Start hydrated and avoid alcohol during time away from work
 - Drink cold fluids or ice slurry prior to donning your PPE
 - Cool down, hydrate and recover between shifts
 3. During work: reduce rises in body core temperature.
 - Don't wait to feel unwell before taking a break
 - Stay hydrated and eat regularly
 - Reduce clothing layers underneath PPE
 - Reduce additional heat from exertion: minimize the equipment you carry, be efficient in your movements, pace yourself
 - Cool down: drink cold fluids or ice slurry during breaks, find cool spots to rest in
 - Use work/rest schedules to minimize an excessive rise in body heat

Staying Cool with No Air Conditioning

Limited access to residential air conditioning is a major concern for many, particularly if sheltering in place during hot weather. This is especially the case for many vulnerable populations, including resource-poor families, older people, those in informal settlements and housing, in older rental housing where air conditioning is not common.

Low-cost and low-tech options and behaviours to keep your home and body cool without air conditioning are possible when you do not have access to air conditioning.

Low-tech cooling options:

- Close window coverings during the hottest part of the day to reduce direct sun exposure
- Avoid cooking hot food indoors during the day when it's hottest
- Unplug large electronics, such as televisions, that produce heat
- Place a bowl of cold water or ice in front of an electric fan to create a cool breeze
- Wear lightweight, light-coloured and loose-fitting clothing

COVID-19 (Novel Coronavirus) Extreme Heat

- Avoid strenuous activities, especially during the hottest parts of the day
- Drink cool water before feeling thirsty; avoiding alcoholic and caffeinated beverages
- Take a cool bath or shower
- Visit a cooling centre if you are not showing symptoms of COVID-19. Cooling centres in Southwestern Public Health's region can be found [here](#)

Outdoor Spaces for cooling

Is it safe to use outdoor public spaces for cooling? Yes, provided physical distancing guidelines can be followed.

- Stay up to date on emergency orders [here](#)
 - Limit social gatherings to the [current](#) permitted size and maintain 2 metres (6 feet) of distance between people outside your household/social circle.
 - If 2 metres of distance cannot be maintained, consider relocating to an outdoor space where you can safely maintain 2 metres of distance.
 - Follow posted signs about the appropriate use of the outdoor space, which follow local guidance.
- Make use of natural and man-made shading structures
- Avoid strenuous activities, especially during the hottest parts of the day
- Stay hydrated: drink cold water and avoid drinking alcohol or caffeinated beverages
- When in the sun, wear a wide-brimmed hat (or with back flap), UV protective sunglasses, loose-fitting long shirts, and pants
- Apply Sunscreen with SPF 30 (or higher), 20-30 minutes before going outside to ensure absorption. Reapply every 2-3 hours.

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References

<http://www.ghhin.org/assets/technical-brief-COVID-and-Heat-final.pdf>

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