

Heat stress and the COVID-19 factor

While heat stress is a recognized hazard in some workplaces all year long, extreme summer temperatures may introduce the risk into other workplaces. “And now there’s the COVID-19 factor,” says WSPS Occupational Hygiene Specialist Warren Clements. “It’s generating questions the health and safety community hasn’t encountered before.”

Here’s one example: “When it’s hot out we rely on pedestal and wall-mounted fans to circulate air. Although we screen workers for COVID-19, what if someone is asymptomatic? Could the fans’ airflow increase the risk of transmitting the virus?”

In this instance, researchers don’t have enough data yet to give a definitive answer. What to do?

A new [downloadable guide](#) is now available that helps workplaces implement a comprehensive approach to assessing potential heat stress hazards linked to COVID-19. Through a series of questions and insights, users will be able to identify and assess hazards in their workplace, and explore possible controls.

Returning to the fan example, WSPS suggests that if COVID-19 may be present in your workplace, aim air flow towards individual workers. “If you can’t avoid directing it towards adjacent workers, then for now at least don’t use these fans,” says Warren. “Instead, introduce other controls to help keep workers cool. For instance, look for opportunities to improve insulation and shielding of hot equipment. Apply administrative controls, such as scheduling hot work for cooler times, and vary the intensity of work and the metabolic demand that goes with it.”

WSPS Ergonomics Specialist Angela Cameron relates another concern: could COVID-19 related personal protective equipment (PPE) increase the risk of heat stress?

Until now, workers in many workplaces have had no need to wear face shields, masks or eye protection, other than simple safety glasses. But now, authorities are recommending surgical masks and eye protection in any workplace where physical distancing is a challenge. The problem is, they can make wearers feel hotter.

“Every time we exhale, we’re creating a little micro-climate behind our mask or shield,” explains Angela. “In an already hot environment, these microclimates can make us feel we’re hotter and working harder than we really are.”

While microclimates alone don’t cause an increase in core body temperatures, the associated perceptions of heat and discomfort may distract workers from the tasks at hand (a safety hazard) and cause stress and anxiety (a psychosocial hazard). “If affected workers feel their concerns are not being acknowledged,” says Angela, “that may amplify the stress.”

“The controls we apply to reduce these psychosocial hazards may be different from controls for the health hazards more commonly associated with heat stress, but we still have to apply them.”

This article was prepared by Workplace Safety & Prevention Services (WSPS), helping Ontario businesses improve health and safety for over 100 years. For more COVID-19 related information, visit our COVID-19 hub <https://covid19.wsps.ca/> or contact WSPS at customercare@wsps.ca.