Work/Rest Cycles

Putting in place procedures for work/rest cycles is an administrative control measure that workplaces can take to help them manage heat stress in their outdoor workers. The ability for a worker to rest from heavy work within a hot environment reduces metabolism and allows their body to release heat through **passive cooling**.[1]

Hierarchy of Risk Controls for Sun Safety:
1. Elimination or substitution
2. Engineering controls
3. Controls that increase awareness
4. Administrative controls
5. Personal protection

What is a Work/Rest Cycle?

A work/rest cycle is a pattern of alternating work and rest based on an assessment of risk. The proportions of work and rest will vary – more and longer periods of rest/recovery are necessary as risks increase.

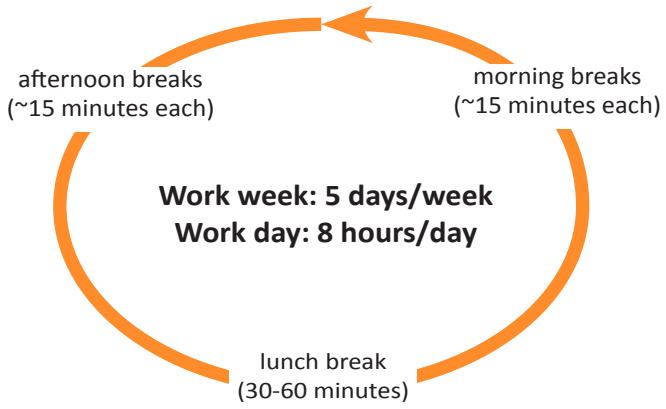
There are four generally recognized categories for the proportion of work in a cycle of work and rest/recovery:[2]

0 to 25%	25 to 50%	50 to 75%	75% to 100%

For heat stress, the work/rest cycle will be based on a consideration of factors such as ambient temperature, radiant heat sources, degree of physical exertion, required clothing, and the acclimatization of the worker. These are commonly assessed through either Wet Bulb Globe Temperature (WBGT) or the humidex.

Work Rate and Self-Paced Work

Continuous Work (100% of work in a work/rest cycle) as defined by ACGIH:



Hot weather automatically triggers an adaption mechanism in which workers will slow down their work rate to prevent heat stress.[3] When work on a job is self-paced (when workers are allowed to manage their own work pace), workers tend to limit their hourly workload to 30% to 50% of their maximum physical performance. This is through taking unscheduled breaks or through setting an appropriate work speed.[2]

SUN SAFETY AT WORK

Visit sunsafetyatwork.ca for more information.

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SUN SAFETY AT WORK

Work/Rest Cycles and Heat Stress Risk Assessment

Work/rest cycles are one consideration to account for when undertaking a risk assessment for heat stress from sun exposure. They are considered at each of the three steps in our **sun safety risk assessment process**. In the *operational review*, the current use of work/rest cycles and the ability of workers to 'self-pace' should be assessed. In the *daily assessment* of heat stress conditions, work/rest cycles should be considered when determining response actions to take. For example, with increasing humidex values, increasingly more rest per work/rest cycle is provided as a way to manage heat stress.

Implementing Work/Rest Cycles at Your Workplace

Work/rest cycles and allowing workers to 'self-pace' are important administrative control measures that should be implemented along with a range of controls to manage heat stress of your outdoor workers. They are an effective way of enabling outdoor workers to recover from the heat demands of physical work in a hot environment, and enable workers to continue working productively and safely throughout the day.

Relevant Resources

- Protect Yourself from Heat Stress (poster)
- Heat Stress Alert (poster)
- Heat Stress Warning (poster)
- Heat Stress and Outdoor Work (fact sheet)
- Heat Stress Signs and Symptoms (fact sheet)
- Heat Stress Personal Risk Assessment
- Heat Stress Risk Assessments for Outdoor Workers: Technical Guide, Operational review, Daily Assessment Records for WBGT and Humidex

1. Jackson L L, 2010. 2. ACGIH, 2009. 3. Rowlinson S, YunyanJia A, Li B, ChuanjingJu C, 2014.