Infographic

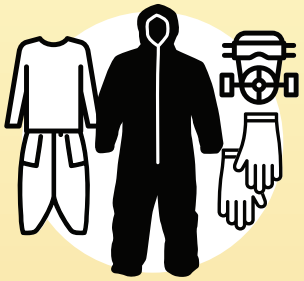
# Heat Stress RISK FACTORS

An **Indoor** and **Outdoor** Concern

**The three main factors that contribute to heat experienced by workers are:**

THERMAL ENVIRONMENT OF WORKPLACE

WORK BEING PERFORMED



CLOTHING / PPE WORN BY WORKERS

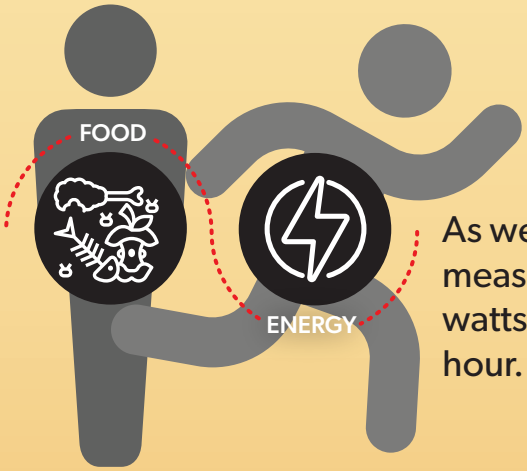
**Working in hot environments can increase the risk of heat-related injuries and illness.**

In order to protect workers from heat stress, it is important to **assess the risk level associated with the type of work being performed.**

*But first a bit about:*

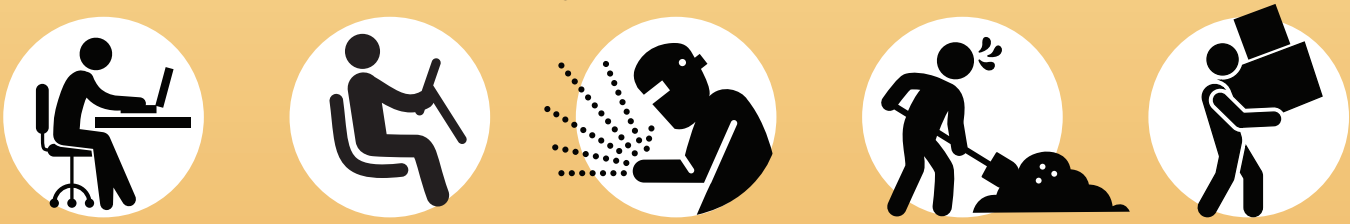
## Metabolic Rate

Our bodies use the food that we consume to produce energy.




As we use that energy, it is measured as a **metabolic rate** in watts (W), or kilocalories (kcal) / hour.

Based on the **metabolic rate** associated with work activities, different types of work are classified as:



| REST | LIGHT WORK | MODERATE WORK | HEAVY WORK | VERY HEAVY WORK |
|---|---|---|---|---|
| 115 W<br>99 kcal/h | 115 – 235 W<br>99–202 kcal/h | 235 – 360 W<br>202 – 310 kcal/h | 360 - 470 W<br>310–404 kcal/h | >470 W<br>>404 kcal/h |

See the types of work associated with each classification on the following page.

HEAT STRESS Toolkit

# Job / Work Classifications

## REST

- Sitting
- Laying

## LIGHT WORK

- Standing
- Driving
- Occasional walking
- Using a table saw
- Operating a crane, hoist, or other air-conditioned vehicle
- Welding (light production in shop)

## MODERATE WORK

- Walking at a normal pace
- Laying brick
- Hammering nails
- Mail delivery services
- Tying rebar
- Welding (on-site or field service)
- Raking asphalt
- Sanding drywall
- Removing staking marks
- Manual shotcrete
- Long-hole drilling
- Heavy machinery production drilling
- Production ore transportation
- Carpentry assembly

## HEAVY WORK

- Walking at a fast pace
- Shoveling dry sand
- Sawing by hand
- Laying block or stone
- Asbestos removal
- Rock Drill operators
- Heavy equipment mechanic
- Mowing (push lawn mower)
- Carpentry installation

## VERY HEAVY WORK

- Shoveling wet sand
- Lifting heavy objects
- Manual bolting
- Mechanical and pipe installation
- Working with an axe
- Gardening or digging

When assessing the metabolic rate associated with the kind of work being performed, the following factors should also be taken into consideration: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HEAT STRESS Toolkit

For other infographics in this series, or to learn more about working in the heat, see our Heat Stress Toolkit:

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