

Returning to Work Safely after COVID -19 – Applying Ergonomics Principles

As a result of the COVID-19 pandemic, many non-essential businesses in Ontario have been closed since mid-March.

Consequently, a large percentage of the workforce has either been out of the work or are working significantly reduced hours. This reduced activity, coupled with the lack of exercise due to the unavailability of gyms, access to walking trails and the government's

mandate to stay at home, has led many workers to lead an inactive lifestyle for the past couple of months. The resulting physiological change in the body following a period of inactivity is known as deconditioning.

As Ontario now gears up to restart the economy and workers start returning to work, it is important to realize that production and efficiency of your workers will not likely be the same as before they stopped working. As important to consider are the health risks associated with the body's deconditioning that can potentially increase the risk for the development of musculoskeletal disorders (MSDs). Some of these include:



- ❏ **Muscle Mass:** Studies show that inactivity leads to a decrease in muscle mass. When the muscles are not used, the fibres within the muscles are partially replaced with fat. As a result of the reduced muscle mass, fatigue sets in at a much faster rate. Employees who become fatigued faster will impact their job performance as a result of experiencing strain earlier.
- ❏ **Muscle Strength:** Inactivity can result in decreased muscle strength at a rate of 1-3% percent per day with noticeable strength loss occurring after about three weeks. This means many of your workers are going to be deconditioned and may experience challenges with heavier job demands, such as manual material handling tasks.
- ❏ **Cardiovascular Fitness:** The heart loses its ability to handle blood flow, up to five percent in 24 hours. The resting heart rate also increases by four to fifteen beats within three to four weeks of inactivity before plateauing. Higher resting heart rates indicate a reduction in endurance, which also can lead to a decrease in job performance, quality and comfort for employees.

- ✦ **Endurance:** Within two weeks of inactivity, the amount of oxygen your working muscles can use decreases by about 20 percent. Employees will not be as efficient as they were prior to exiting the workforce back in March.
- ✦ **Range of Motion (ROM):** Movement within the joint causes increased blood flow to the joint, providing nourishment that enables the bones to move smoothly and without pain or discomfort. When there is little movement and subsequently less blood flow, the joints may become stiff and painful, leading to reduced activity and, in turn, ROM loss.
- ✦ **Weight:** As a result of inactivity, the body may have trouble breaking down fats and sugars. Eventually, the body's metabolism will slow down and, therefore, burn fewer calories leading to weight gain.

In combination with the above individual physical changes, employees are now going to experience different working conditions, both physically and mentally. Most workplaces are going to require personal protective equipment, such as masks, face shields and gloves, which employees may not be used to working with. Physical work may be perceived as more difficult while wearing a mask. Physical distancing requirements and work barriers will impact the social aspect of many workplaces, of which many employees may find mentally challenging.

What can employers do to prepare for a changed physical workforce and workplace?

1. Review new work procedures and procedural steps as a result of COVID-19 safety measures. For example, some workers may have increased job demands that relate to infection control. Ensure proper ergonomic tools are provided and workers know how to safely perform cleaning-related tasks.
2. Assess implications of COVID-19 safety measures on workstation layout. For example, in an industrial setting, there may be an increase in travel time to retrieve parts and equipment due to larger gaps between workstations as a result of physical distancing requirements. These implications should be factored into time motion studies and Ergonomic Risk Assessments to ensure job demands meet ergonomics guidelines.



3. If new work processes significantly change physical working demands, update your Physical Demands Assessments to reflect these changes to ensure future accommodations consider these variations.
4. Consider using graduated Return to Work principles as your facility starts back up. Provide employees with time to work harden, build strength, and endurance in their positions before resuming 100% production rates.
5. Consider increasing the frequency of short rest breaks and encourage workers to stretch to relieve any tension.
6. Provide additional assistance with lifting heavy loads. Lift assists and manual handling devices will reduce job demands.
7. Encourage employees to report discomfort and come forward with any ways to improve their work environment.
8. If you have been considering performing an ergonomics evaluation on a “high risk” job, now is the time to do so and to implement appropriate controls to mitigate employee risk.
9. Provide workers with ergonomics training, preferably close to their return date, so any new work methods are understood. The training should include identifying potential MSD risk factors, as well as how to address these issues through workstation set-up and proper work practices.
10. Engineering controls to address MSD risk factors may have to be relied on more than ergonomic administrative controls (e.g. job rotation). Rotating workers to jobs throughout the day may increase the possibility of cross-contamination. Therefore, ergonomic administrative controls may have to be adjusted for the time being.

Let's ensure we all properly prepare for a changed workplace to ensure successful return to work. If you would like assistance with your Return to Work Planning contact us today – ERGO Inc. offers workplace assessments, staff education and return to work assistance.

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