

New Study Finds Obese Workers Need More Frequent Breaks



A new study has found a connection between fatigue and obesity, concluding that obese workers tire faster and so may need more frequent breaks.

The study was published in the Journal of Occupational and Environmental Hygiene, Volume 11, Issue 9, 2014. Researchers had four groups of eight workers each (split evenly between men and women):

- Obese and young (18'25)
- Non-obese and young
- Obese and older (50'65)
- Non-obese and older.

The workers in each group completed three endurance tasks involving fixed levels of task demands:

- Hand grip
- Intermittent shoulder elevation
- A simulated assembly task using the upper extremity.

The researchers measured the workers' functional performance, including their endurance, discomfort, motor control and task performance for each of the tasks. The workers were given adequate rest breaks between tasks. And the pacing was similar to what workers would experience in a manufacturing setting.

Results: The researchers found that endurance times were 60% longer for the non-obese group. Obesity also impaired workers' functional performance, as indicated by higher rates of strength loss, increases in discomfort and declines in task performance.

These observed impairments may reflect underlying physiological differences among individuals who are obese, but that are independent of age.

Bottom line: Performance declines with a higher BMI. The observed impairments may reflect underlying physiological differences related to obesity that limited muscle recovery during the rest periods.

For example, workers who are obese may need longer rest breaks to return to their initial state of muscle function. And based on the increased vulnerability to fatigue found in obese workers, when designing work stations, employers may also need to consider the addition of fixtures and supports to minimize the amount of time that such workers need to support body mass segments, such as their arms.

Additional studies on obesity and workers have found:

- Obese workers have an increased risk of developing MSIs
- A tie between work conditions and obesity
- That obesity costs employers more than smokers
- Obese workers are more at risk of suffering a disabling workplace injuries
- Work-related injuries are far more costly if the injured worker is obese.

To help you manage and protect overweight workers, use these OHS Insider resources:

- A recorded webinar on managing overweight workers
- A quiz on treating workers adversely because of their weight.

And at Safety Smart, you can download a safety talk on winning the war on weight and an article on obesity and workplace safety.