

# 3 Tips to Protect Workers from Heat Stress with an Acclimatization Plan



Many workers are vulnerable to heat stress in the summer. One way to protect them is simply by giving them a chance to get used to the high temperatures and humidity—that is, to get acclimated. But this natural adaptation to the heat takes time and may require careful planning.

How does acclimatization work?

According to the NIOSH Science Blog, when workers are first exposed to hot work environments, they may show signs of distress and discomfort. Their core temperatures and heart rates increase and they may experience headaches, nausea and other symptoms of heat-related illness.

The brain's thermo regulator detects the increases in skin, muscle and organ temperature and starts the body's cooling mechanisms—primarily sweating and vasodilation of the skin's blood vessels.

As the body is exposed to the heat and is given proper recovery time, it begins to adapt. Total sweat production increases and sweating begins at a lower skin temperature.

The CDC published an infographic on developing an acclimatization plan to protect workers from heat stress. It includes three tips to help workers safely acclimate:

**Tip #1:** Gradually increase the time spent in hot environmental conditions over a 7-14 day period.

**Tip #2:** For new workers, the schedule should be no more than 20% exposure to heat on day 1 and an increase of no more than 20% exposure on each additional day.

**Tip #3:** For workers who've had previous experience with the job, the

acclimatization schedule should be no more than:

- Day 1: 50% exposure
- Day 2: 60% exposure
- Day 3: 80% exposure