

Road Construction Company

- ▼ 61% Back Injury
- ▼ 35% Heat Stress

SITUATION

Dehydration, Heat Stress and Bad Form

Road construction during heat can be very challenging. Equipment operators and crews work together to lay gravel, concrete and rebar. Interfacing with heavy equipment and working in awkward positions while exposed to the weather is what they do everyday. Most common injuries were lower back and heat injuries.

20 equipment operators and road crew were outfitted with the Boost watch and trunk pod. The results were typical of what we find in the construction sector:

- › 48% of lifts were “bad lifts”
- › Average heart rate was 107 bpm
- › Combined risk of dehydration, fatigue, and overexertion was 57, which is high amber
- › Average temperature was 80°F, high of 93°F

INTERDICTION

Increase Resiliency and Improve Form

Training and education based on measured data to improve form. Provided 2-gallon water thermos to be placed no more than arms length from work site. Watch provided haptic cues and displayed warnings. Supervisors tracked real-time risks on their smart phones and took corrective actions.

GoX Labs Boost:

- › Samsung Galaxy watch measuring over 20 form, force, fatigue, fitness, performance and environmental factors
- › Haptic feedback and display warnings on the watch to drink water, use good form, etc.
- › GoX Labs motion pod measuring 3D movement of selected body part such as trunk or arm
- › Dashboard providing real-time status risks by groups and workers



RESULTS

61% Decrease in Back Injury & 35% Heat Stress

The results were significant and sustained. Proper nutrition and hydration resulted in a happier and more resilient workforce. Risks dropped while productivity increased even though the outside temperature was higher. Perception of effort decreased. Average group heart rate dropped. Training and data driven accountability improved lifting form reducing back injuries.

Our client realized:

- 61% reduction in “bad lifts” from 48% to 16%
- 14 BPM reduction in heart rate from 107 to 93
- 35% reduction in dehydration, fatigue, and overexertion from 57 to 37
- Average temperature was 89F, highs of 103F

How it Works



- 1 User puts on watch at the beginning of the day.



- 2 Critical physiological & biomechanical data collected measures risk shown in green, amber, & red. If risk is too high haptic feedback alerts the worker.



- 3 Data is continuously collected on the watch and uploaded to the cloud when connectivity is established via wifi or cellular.



- 4 At this time, managers, executives, and workers can view the data from the dashboard on their computer or phone.

Learn how your company can benefit from Boost wearable today. Visit us at goxlabs.com or contact us at info@goxlabs.com