KINETIC 2021 WHITE PAPER

Good to Great:
Enhancing Workplace Safety with Wearables

Identify Ergonomic Risks to Reduce Injuries, Lower Costs

KINETIC

Contents

> Companies that invest in innovative technologies, like wearables, will rise to the top with a safer, more productive, and more engaged workforce.

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INTRODUCTION

Take your Safety Program From Good to Great

The focus on safety in the industrial workplace has grown exponentially, especially as a global pandemic introduced new environmental health and safety threats in 2020. At the same time, consumer demand is skyrocketing across sectors.

With employees encountering longer hours, riskier work environments, and increased physical strain, it has never been more important to invest in and protect your essential workforce.

Smart technology, like wearable devices, can complement an already good environmental health and safety (EHS) program, elevating it to great. Through data and actionable insights, wearables can help you further reduce injury rates, maintain worker well-being, and reach peak productivity levels.

1

Deploy innovative technology to reduce risky postures that lead to costly workplace injuries.

2

Utilize predictive analytics to uncover insights and drive workplace improvements that enhance employee safety.

3

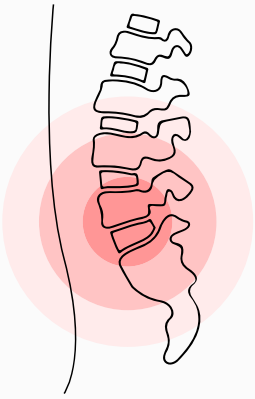
Reduce injury frequency by 50-60%, and lost work days by 72%.

How Workplace Injuries Hurt Everyone

A variety of safety hazards threaten the industrial workforce, including ergonomic, organizational, and environmental risks. Bad biomechanics - caused by high risk postures performed on the job - remain one of the most prevalent threats, resulting in stress on employees' musculoskeletal systems that, over time, can develop into Musculoskeletal Disorders (MSDs).

MSDs are the most frequent and costly type of workplace injuries. Employers who don't address poor ergonomics fail to protect their employees - and their bottom line - from this truly damaging threat.

As this white paper will discuss, it's crucial that you safeguard your employees and your business from the damaging effects of musculoskeletal injuries. The KINETIC Reflex device can maximize your safety program and fortify your safety culture by mitigating costly ergonomic risks.



Musculoskeletal Disorders (MSDs) in the Industrial Workforce

The leading cause of work-related injuries in 2019 was overexertion and bodily reactions (from lifting, twisting, reaching, etc.) accounting for more than 31% of injuries.

- Industry most at risk: transportation and warehousing
- Most frequent part of body hurt: back
- Leading nature of injury: sprains, strains & tears

What MSDs Mean for Your Business:

Lost Productivity

- 34% of lost work days are attributed to workplace MSDs.
- MSDs lead to a median of 8 days away from work.

Increased Costs

- MSDs account for 1/3 of all workers compensation costs.
- Employers spend as much as $20 billion a year on direct costs for MSD-related workers' compensation.

What MSDs Mean for Your Employee:

Pain and Injury

- Nearly 2 million workers suffer from work-related MSDs every year.
- MSDs account for almost 400,000 injuries annually.

Lost Work

- About 600,000 employees lose time from work as a result of MSDs.

Sources: Occupational Health and Safety Administration; Bureau of Labor Statistics; The National Safety Council

Keep Your Workforce Moving

More than ever before, industrial employers are looking to technology to help them thrive in an increasingly unpredictable world. The key to navigating workplace risks is leveraging smart technology to uncover the specific risks your employees encounter, and to use those insights to create a safer work environment.

Using sensors, machine learning, and data science, wearable devices give you granular insight into potentially injury-causing, high-risk behaviors occurring in the workplace.

Gain Insights, Drive Change

The adoption of wearables in the industrial workforce has never been more prevalent than in the past year. As the Covid-19 pandemic thrust frontline worker safety into the spotlight, we saw four times the amount of wearables deployed across industrial sectors than in previous times. Employers utilizing these devices hold a competitive edge today, and into the future.

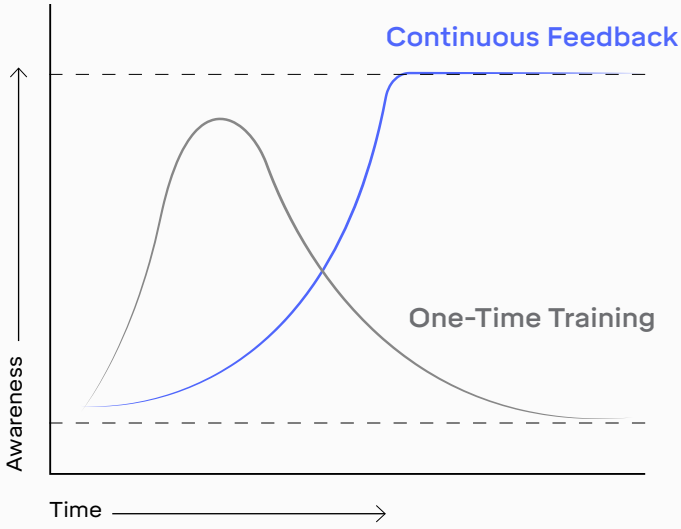
When done right, adopting wearables leads to two key operational advantages: behavior change and actionable data.

The Impact of Behavior Change

An effective safety program in the industrial workplace leans heavily on an ergonomic process to reduce the risk of MSDs. Most standard ergo solutions - such as training videos and consultants - have been designed to encourage employees to modify the way they move, but rarely do these efforts lead to lasting behavior change.

Wearables can serve as an always-on, continuous coaching system. The belt-mounted wearable sensor on the Reflex device automatically recognizes risky postures and alerts users with a light vibration. These real time alerts create new habits and drive sustained behavior change.

Furthermore, the device engages workers through on-screen data and gamification features. Employees can access their personal data, from high risk postures to steps to goals, so they can gain insights into their activities and monitor their progress. By striving to reach goals set for themselves, their team, or their facility, employees begin to own their safety.



More effective than one-time training, this continuous coaching method leads to long-term behavioral changes, including reduced HRPs. In turn, companies can expect up to 50-60% fewer injuries and a 72% reduction in lost workdays.

By using correct body mechanics, employees experience less soreness and fatigue, allowing them to keep their pace up for longer, miss less work, and experience greater emotional and mental well-being. The end result is a safer, healthier, more productive workforce.

Track Against Goals

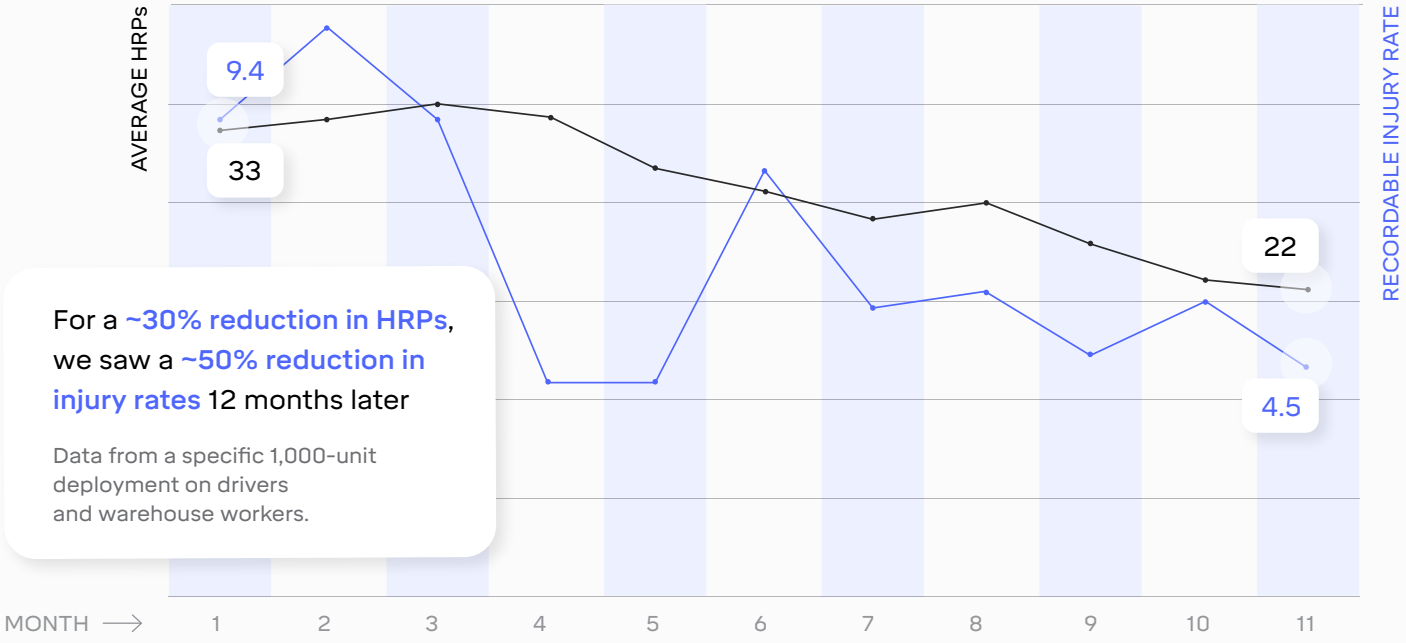
Set and monitor your progress against custom goals.

Daily Breakdown

Track your progress throughout the week.

Rewards Program

Set and monitor custom incentive programs.



The Power of Data

Data and analytics play an integral part in improving operational safety, and wearables are an exceptional way to capture insights, as they can simultaneously collect detailed data on an entire workforce.

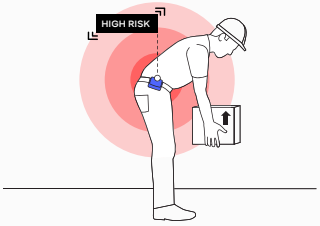
This real-time information tells you who is performing excessive awkward postures, what those movements are, and when, where and how often they are occurring. Furthermore, analysis reveals the why, or the potential causes that are putting your employees and your business at risk.

The KINETIC Reflex device uses biomechanical analysis to automatically recognize unsafe movements commonly performed on the job, such as bending, overreaching, and twisting, that over time lead to musculoskeletal injury.

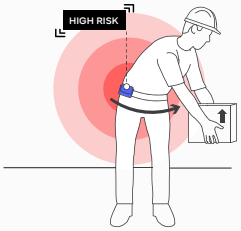
This HRP data is uploaded to a web dashboard that provides you customizable insights into how your employees are moving while performing their jobs. An easy-to-use platform helps you create custom data reports, by job type or individual, day of week or hour, type of high risk posture, and more.

With this information in-hand, you can make better business decisions to improve workplace ergonomics, ranging from training and coaching opportunities to workstation and work process redesigns.

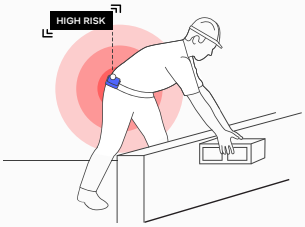
High Risk Postures Include:



1 **Improper Bending**



2 **Improper Twisting**



3 **Improper Overreaching**

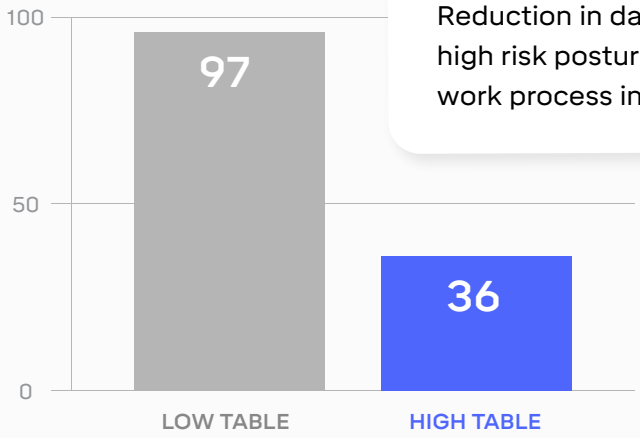
Data Driven Safety Decisions: Workplace Redesign Success Story

SITUATION

- A machinist at a leading U.S. construction machinery and equipment company had to bend and twist to place parts from a table into a machine as part of his daily workflow.
- The KINETIC Reflex device showed he was performing an average of 97 HRPs each day.

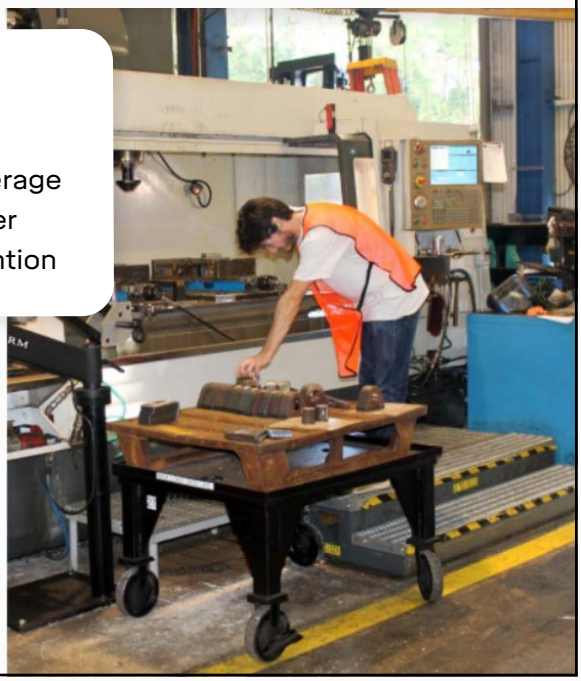
SOLUTION

- With this data insight, the company was able to modify the work process by adding a raised platform to the table. The redesign reduced the employee's HRPs to 36 - a 64% reduction.
- Wearable device data allowed the company to measure the impact of the workstation change, and see a quantified difference.



▼ 64%

Reduction in daily average high risk postures after work process intervention



Engage Your Employees, Enhance Your Safety Culture

Operators across a variety of industrial sectors are deploying KINETIC's patented wearable technology, reducing environmental hazards and implementing a continuous improvement program to protect their essential workforce and improve their bottom line.

It's not, however, only about lowering injury rates and costs. One thing companies adopting our wearable tech overwhelmingly have in common is a commitment to a thriving safety culture and a desire to engage employees in the safety process.

Wearables enable you to do just that by allowing your workforce to own their own data, and in turn own their own safety.

For example, Frito-Lay, Inc. is using wearables to help solve key safety challenges and build a proactive culture. Thousands of Reflex devices have been distributed among their employees in 22 manufacturing locations across North America.

When associates started to receive alerts while doing their daily job functions, they started proposing solutions for their HRPs to management. The company is delighted that a device deployed to solve traditional ergonomic risks is also empowering workers and driving culture change.

Leadership reports this is something they've "never had before with their ergo program," and that the results are "incredibly powerful."

> **"One thing companies adopting our wearable tech overwhelmingly have in common is a commitment to a thriving safety culture and a desire to engage employees in the safety process."**

FORM AND FUNCTION

Digitize Your Ergonomic Process for Lasting Change

The only way to effect lasting behavior change is to work in real time with employees, and the only way to do this in a scalable manner is through the use of a wearable device. However, for a wearable program to thrive it needs user acceptance and involvement. In other words, employees need to **want** to wear it.

A Highly-Wearable Wearable

KINETIC's Reflex device is designed for easy user adoption. While other solutions in the space require employees to wear uncomfortable, awkward back- or chest-mounted sensors, the Reflex is hip- or belt-mounted, which feels like a natural place to wear it (like a phone) and is unobtrusive for industrial employees.

Using big advances in machine learning that have occurred over the last decade, KINETIC has developed a model that can measure hip motions and, based on that, predict how the back is moving. This form factor and sophisticated algorithm are what make the Reflex device so unique.

Specialized Knowledge, Special Device

Converting hip motion into back motion requires a combination of an intimate knowledge of biomechanics, as well as a deep understanding of sensors and electronics. KINETIC's founders started the company in 2014 with backgrounds in biomechanical and electrical engineering.

Today, Kinetic has teams of data scientists, software engineers and hardware engineers that help drive a leading product development cycle.

Furthermore, the self-calibrating Reflex model is designed to be applicable and valid for every person who wears it, regardless of body type or size. As such, it's a one-device-fits all, ruled by one state-of-the-art algorithm.

The Reflex: An Overview

The Reflex device is about the size of a deck of cards and attaches to your belt or waistline. Once clipped on, its sensors measure how the body moves, determining if an unsafe movement, or high risk posture (HRP) has occurred.

Once an HRP is detected, the device vibrates, giving users real time feedback. This helps employees increase awareness about how they move, and changes behavior over time.

Data from the devices are uploaded during docking. Aggregated data for your entire workforce can be viewed on an easy-to-use, cloud-based web dashboard. There, companywide insights are provided, such as which employees might need more training, or what jobs and locations are the highest risk. This knowledge allows safety professionals to focus on coaching opportunities with individuals and groups that will benefit most.

RESULTS AND ROI

Augment Your Workforce to Win

By leveraging wearables in your operations you gain both a connected workforce and a competitive edge. They allow you to tap into a great opportunity to augment your employees with technology that makes them more productive, safer, and their work more rewarding.

Proven Results

▼ 50-60%

Reduction in injury frequency

▼ 72%

Reduction in lost work days

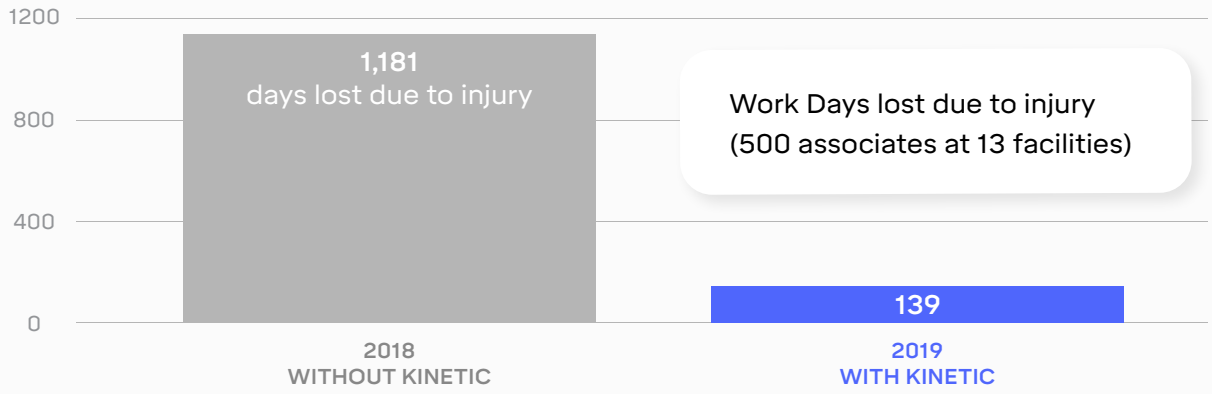
The Indirect Costs of Lost Productivity

Employees are injured on the job at the alarming rate of three million per year in the U.S. And while the related direct costs are considerable - companies pay an average $62 billion per year for workplace injuries - indirect costs include a severe impact on employee productivity and retention. Workers who are injured may not be able to work scheduled shifts, causing a reliance on temporary workers or substantial restaffing costs. And working with fewer or untrained employees often leads to additional inefficiencies.

REDUCE LOST WORK DAYS

*Specific customer experience

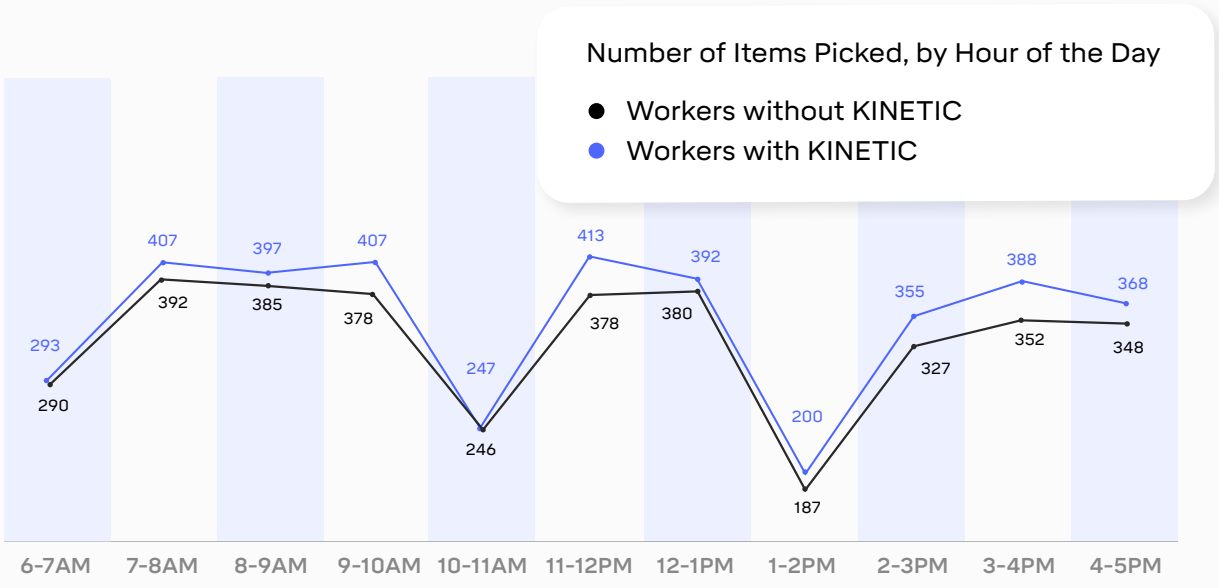
80% Reduction* in Lost Work Days



INCREASE WORKER PRODUCTIVITY

*Specific customer experience

5% Increase* in Worker Productivity



Enhance Safety, Increase Productivity

Now is the time to invest in smart technology that will keep your workforce working and your operations running safely. Across industries, the KINETIC Reflex wearable has helped companies reduce injury rates, reduce lost work days, and increase employee productivity. The return on investment is significant!

Measuring the Impact

ROI is measured by comparing the investment in wearables to the direct and indirect monetary impact of workplace injuries (including medical, legal and paid time off expenses, as well as cots related to lost productivity, turnover, administration, etc.).

As Injuries Go Down, Savings Go Up

As your workforce wears the Reflex device, you can expect injury frequency to reduce 50-60%. Less injuries mean less workers compensation claims - as such, we have clients that have seen up to 50% reduction in overall claims costs in environments where high strain and sprain injury rates are present.

And whether it's by cutting your workplace injuries in half, or by redesigning workstations for avoidable injuries, the investment you make in your workforce with the KINETIC Reflex will result in net value add. **Clients have consistently experienced an ROI of 4 to 5 times the cost of the device, and even up to 10 times.**

INJURY REDUCTION BY SECTOR

50-60% Reduction in Injury Frequency

Company	Industry	Injury Reduction	ROI*
AIG / PGW Auto Glass	Manufacturing	62% Reduction	
Iron Mountain	Transportation & Warehousing	58% Reduction	5.1x
International courier, package delivery and express mail service	Transportation & Warehousing	58% Reduction	4.1x
Leading home improvement retailer	Retail & Warehousing	48% Reduction	4x
Amerisure	Healthcare	43% Reduction	

Compliments for a Complementary Product

The KINETIC Reflex is a proven complement to existing EHS programs across multiple sectors in the industrial world.

While our mission is to use the best technology in the world to serve and improve the lives of our front-line workers, results can look different from company to company. From reducing injury rates, to lowering claims costs, to driving culture change, here's what success with KINETIC looks like:

Customer Results

58% Reduction in claims costs versus the previous years without KINETIC.

Case Study

38% Reduction in High Risk Movements during initial 6-week deployment

Case Study

62% Reduction in injuries versus the control group

Case Study

> **"KINETIC reduced injury rates by 60%, which has had an incredible impact on the wellness of our workforce."**
>
> **"Unless we had this program, I wouldn't know about the dangerous movements in areas of the facility."**
>
> **"This device helps reduce my back pain tremendously. I'm concerned about providing for my family and don't want to be put out of work because of a back injury."**

CONCLUSION

Elevate Your EHS Program to Excellent

Every move your essential employees make while on the job is critical to their safety, and high risk postures - like bending, overreaching, and twisting - can lead to costly injuries.

By optimizing your safety program with wearable tech, you further protect your workforce, and enhance your bottom line.

INSIGHTS AND IMPROVEMENTS

Through data analytics you gain the ability to know who is performing high risk postures, and to uncover why. Leverage new robust data for actionable insights and behavior-changing technology for continuous improvement that reduces injuries and maximizes operational efficiencies.

A WEARABLE THAT WORKS

Employee participation is key to improving workplace ergonomics. With an unobtrusive form, a state-of-the-art algorithm, and unique gamification features, the KINETIC Reflex is a wearable solution that your workforce will want to wear. Give employees the power to drive change.

PROVEN RESULTS

The direct and indirect costs of workplace injuries are substantial. Companies who invest in their workforce now, augmenting them with wearable tech, gain a competitive advantage with reduced injuries, lowered claims costs, and increased productivity.

Are you ready to take your workplace safety program from good to great with the KINETIC Reflex device?

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