



**Soter Analytics**

**Behaviour Changing  
Wearables Reduce**

# Ergonomic Injuries & Claims

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UFA Co-operative - farm and ranch supply operation and petroleum distribution network.

**UFA case study**





## UFA



Founded in 1909



Over 120,000  
member-owners

### About UFA

UFA Co-operative is one of Canada's largest and most dynamic farm and ranch supply operations and petroleum distribution networks.

They believe that changing the movement behaviour of their workers is key to reducing ergonomic injuries and workers' compensation claims.

They are committed to providing personalized attention and proactive strategies to enhance the long-term health and wellbeing of their workers.

### UFA online



# The challenge

UFA has consistently developed programs, looked at online/face-to-face training, strategized new safer practices; they've done it all. And although all these solutions have been beneficial, they **found them to be short-term and unsustainable for the tenured or new workers.**

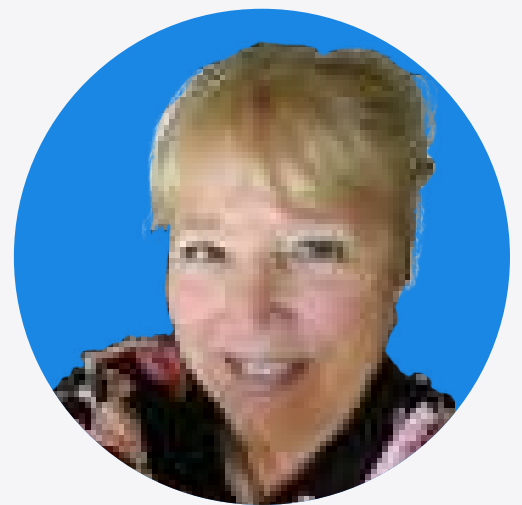


Virginia MacKay, Incident Investigations Specialist & Senior H&S Advisor at UFA was challenged by their distribution center to come up with ways that could improve their claims history when it came to worker injuries. Specifically, at distribution, the claims typically were all about ergonomics, **neck strains, back strains, and pulled shoulders.**

When investigating the root cause of why these incidents happen, Virginia believed it is because of behaviour and says,



The behaviour and the complacency that's in place is where the problems stem, so for one to change the complacency or change the behaviour, you have to work on changing habits, re-elevate your existing program, and start thinking more proactively. After researching, UFA landed on the SoterCoach wearable technology solution offered by Soter Analytics.



Virginia Mackay  
Incident Investigations Specialist, UFA



# The solution

The SoterCoach solution consists of a small clip-on device placed either on the collar of a shirt for spine safety or connected to an arm strap for shoulder safety.



The sensors capture and alert the workers via real-time audible and vibration feedback of any high-risk spine movements including, **lumbar flexion, rotation, static postures, repetitive movements, and identify any high-intensity movements.**

The shoulder sensor detects the cumulative risk of **arm elevations, repetition, static, overexertion and hazardous pushing and pulling of the shoulder.**

All movement data is fed back to a companion app where workers can view their own personal results and follow micro-learning manual handling tutorials. An online management dashboard provides insight to where the risks are in the organization.



# The result

In November 2021 UFA rolled out the program on their pickers, sorters, and receivers at their DC and then due to the resounding success, continued in their retail stores, yard areas, bulk petroleum and cardlock facilities.



The results have easily justified the program with the longitudinal data showing that in 2021, before introducing Soter, the number of injuries and claims was consistently increasing. In Dec 2021 after Soter was implemented, there is a plateau in both claims and injuries resulting in:

## The results:



**86% Reduction in Ergonomic injuries**



**67% Reduction in recordable workers' compensation claims (WCB)**



**43% Overall improvement in the number of spine hazards per hour**



**86% reduction in total ergonomic injury costs\* with an 11 x Return on Investment.**

In addition to the direct cost savings for reduced WCB claims, UFA is also trending towards a reduction in their WCB premium, which is based on the last 3 years of claims.

\*based on North American average total injury costs

# The result

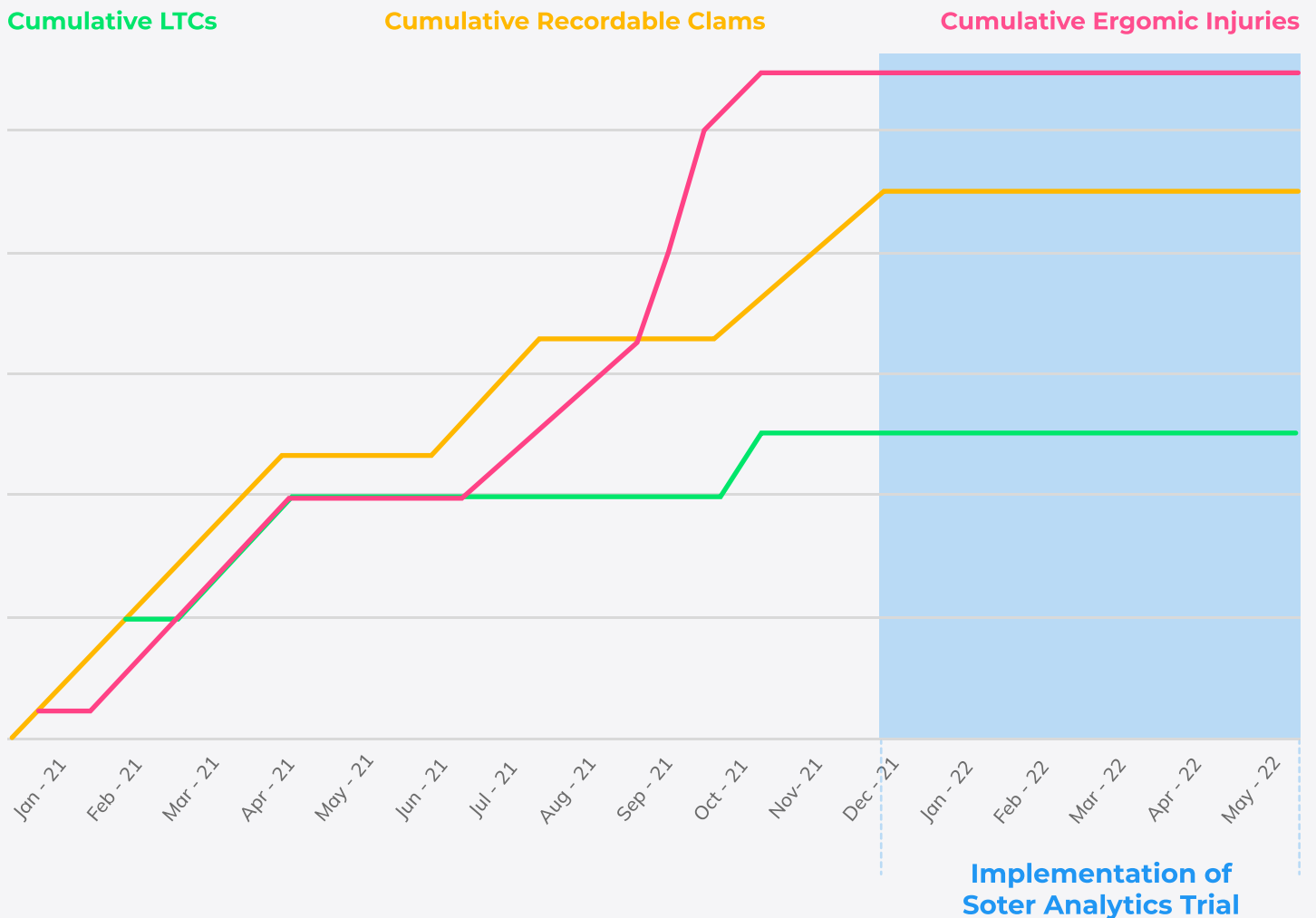
## Direct cost savings to UFA included:

- Reduced hazardous movements → reduced risk of injury
- Reduced the cost of manual handling training
- Reduced the requirement of observation/supervision of employees
- Profiling of hazardous tasks (task risk assessment) for their further elimination
- Reduction of claims costs & lost workdays

## Priceless contributions included

- Reduction of claims costs & lost workdays
- Employee empowerment and autonomy
- Proactive insight into work done in the workplace
- Improved lifting techniques outside of work (24/7)

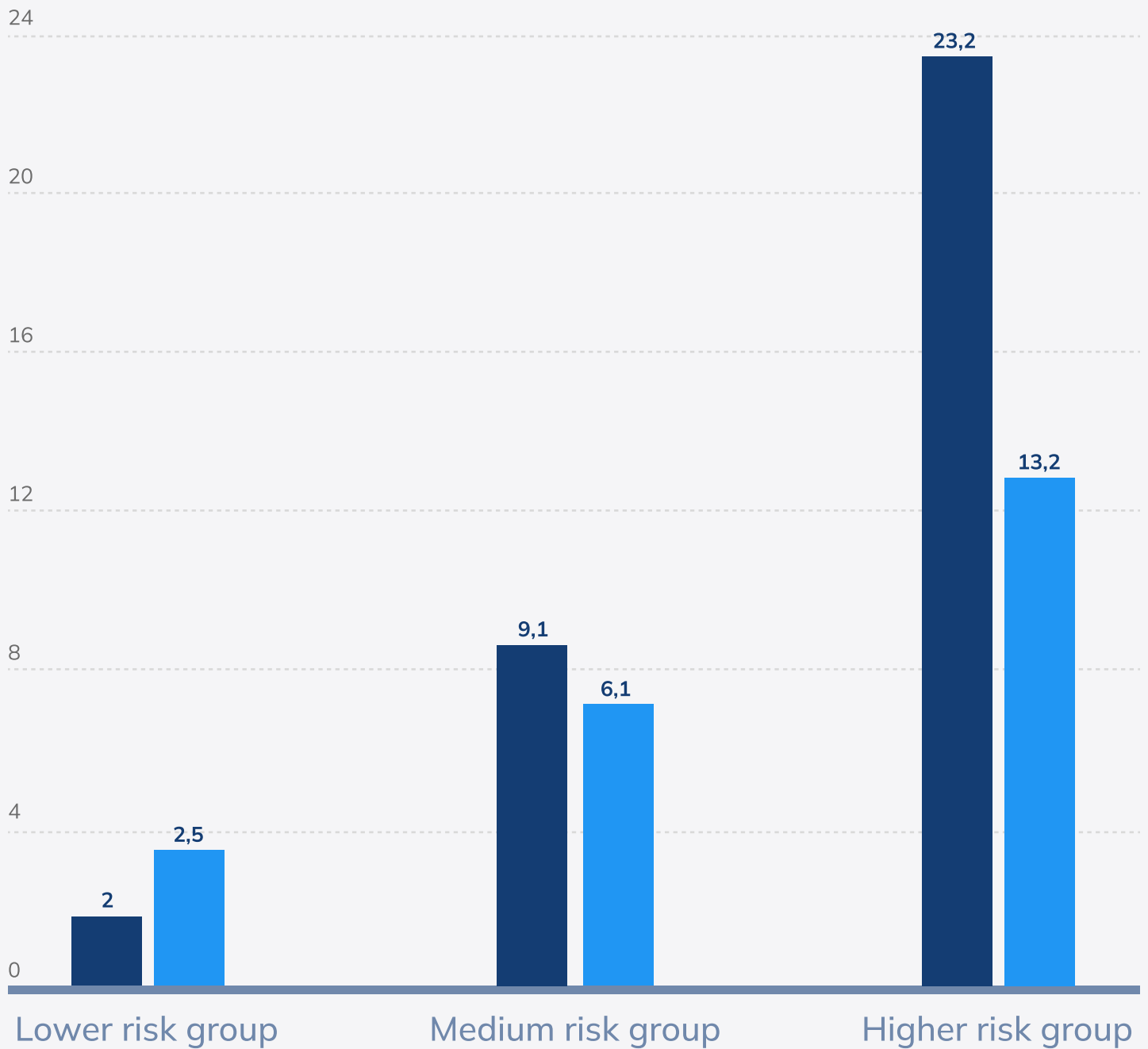
## DC Injuries & WCB Claims



# The result

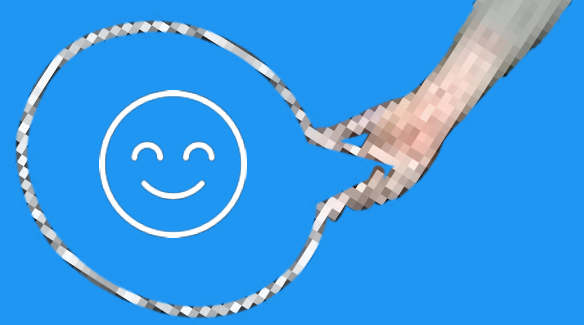
43% improvement for highest risk workers

Overall spine hazardous movements per hour  
October 2021 to May 2022



■ START ■ END

# Worker feedback



“

The Soter device I wore for the 10 days was great. In the beginning it would beep a lot but tapered off towards the end of the 10 days. I knew I was improving. It really did help me on how to bend properly and how to pick up things along with posture and twisting. It was good to see how well I did.

”

“

I found myself stopping when the device beeped to try to figure out what I was doing wrong.

”

“

I truly believe that everyone should wear the Soter device because it helps you learn and understand how much pressure we put on our backs every day. The tutorials were a nice added touch with valuable information. I can now self-trigger myself when I am about to lift anything and it's all thanks to the device.

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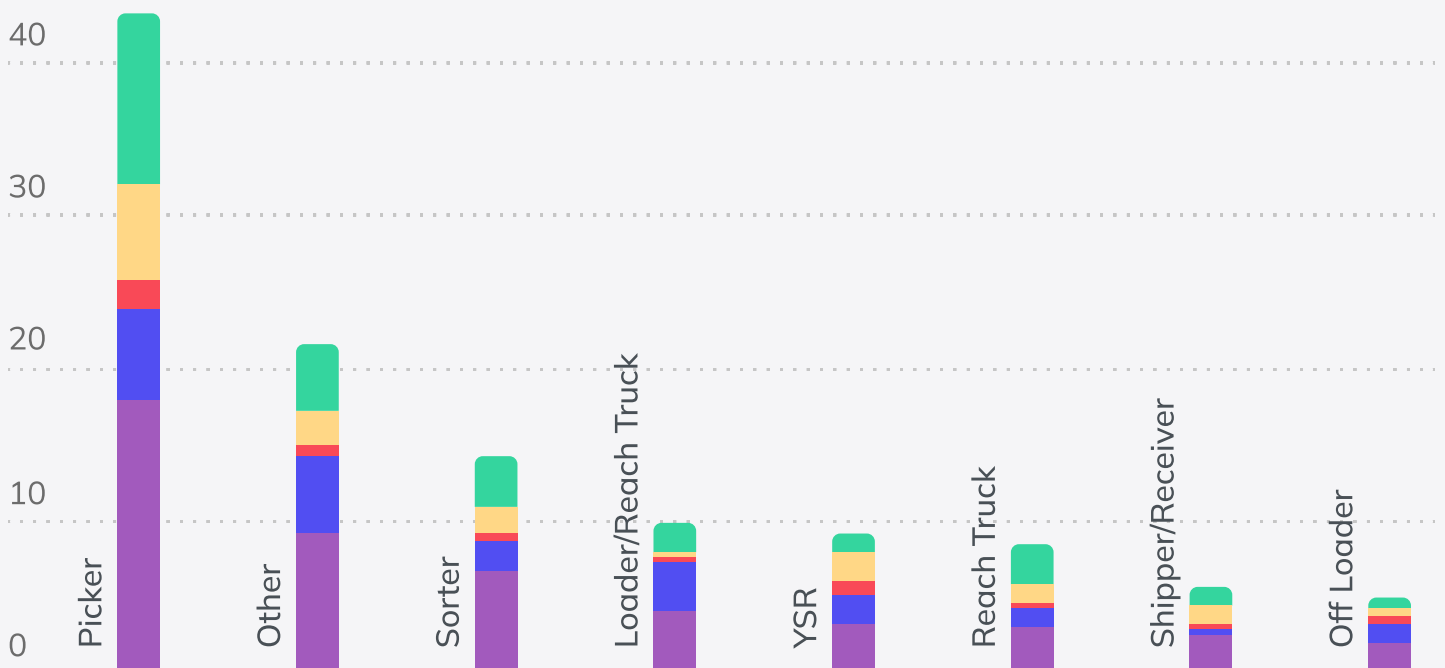
# Data Insights

The data collected by the devices was displayed on an online dashboard for management and was able to show UFA **what site, department, and job roles were at highest risk, and where to focus their attention.**



Among other data, UFA found that in the DC, their pickers were the workers most at risk. The data showed them exactly what area and which task was causing the high risk. They were able to implement a tool to eliminate the risk and then obtain a comparison data report afterward.

## SPINE HAZARDS PER HOUR



- Poor bending
- Back twisting
- Awkward Static Posture
- Intense Bending
- Repetition

# Outcome

UFA is a process-oriented organization and is continuing to roll out the SoterCoach program across their entire network.

They have implemented the SoterCoach training into their new employee onboarding program at their distribution center. It gets their workers initiating the correct lifting and carrying technique from the start, before an injury or life-changing event occurs.



“

We all know that changing habits takes constant nagging reminders and it is easier said than done. The Soter devices and the SoterCoach tutorials offered a great way to help our workers be more aware of the hazardous movements they were making and to self-trigger right away when the device is alerting them. The wearable devices also compliments our behaviour based program, SafeStart, and gets the workers to self-trigger on the hazardous movement and think about the Critical Error Reduction Techniques they should be doing such as “working on habits” and to “self-trigger”.

Virginia Mackay  
Incident Investigations Specialist, UFA

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# About SoterAnalytics

Fit for all industries and workers, smart wearables, and AI-driven end-to-end safety solutions, proven in the workplace to reduce back and shoulder injuries by 86%.



**REDUCE INJURIES**  
& repetitive movements  
in your organization



**REDUCE LOST WORKDAYS**  
Achieve up to 30% reduction  
in lost workdays



**IMPROVE PRODUCTIVITY**  
Ensure smooth operations &  
reduce employee turnover



**REDUCE DOWNTIME**  
Minimize cost exposure with  
demonstrated benefits

BOOK A DEMO >

Only for online use

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