



BARDAVON[®]

PREVENTION + RECOVERY

*Reduce MSD risks and
keep your workers healthy*

Case Studies

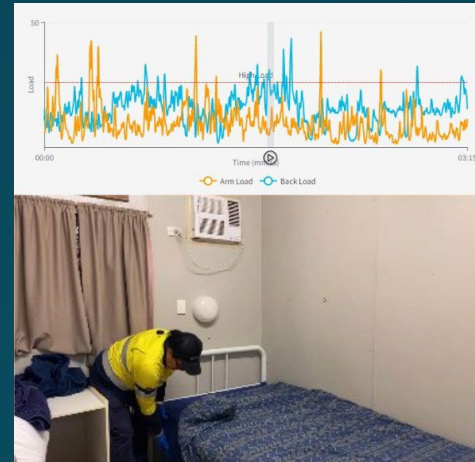
Accommodation & Food Services

CASE STUDY

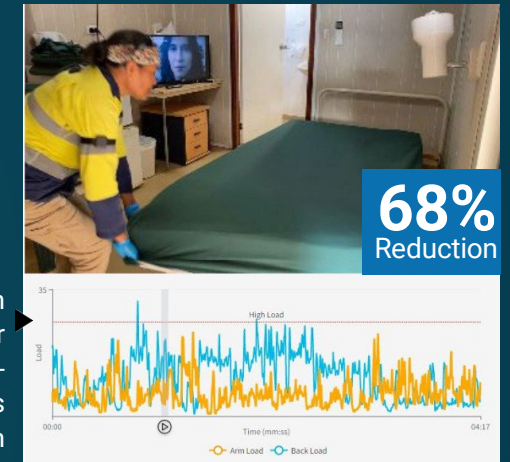
Reducing Task and Worker Injury Risk | **Task: Positional Tolerance Assessment**

Task Injury Risk Reduction – Key Finding

- Assessed back strain of different bed making techniques
- By keeping back straight and bending at knees and hips, body stress was reduced in back by 68%



High injury risk indicated above red line



Changes in behavior resulted in high-risk stress reduction

Worker Injury Risk Reduction – Key Finding

- 5 high-risk workers were shown to have 3 to 4 times greater injury risk over the average
- Safety professional is enabled to take action with workers to decrease risk

Key Outcomes

153

Reports recorded across 18 different workers and 5 locations

68%

Potential risk reduction for high load tasks

3x

Difference between high-risk workers and the group average

Aviation – Ground Crew

CASE STUDY

Reducing Task and Worker Injury Risk | Task: Changing Worker Behavior

Task Injury Risk Reduction – Key Finding

- Assessed changes in strain when lifting bags from various ramp points
- Lifting from the end of the ramp reduced arm stress by 53%



Worker Injury Risk Reduction – Key Finding

- Whilst workers are performing the same task, there is high variability between them
- Safety professional is enabled to take action with higher load workers to decrease their risk

Key Outcomes

94

Reports recorded across 20 different workers and 4 locations

53%

Potential risk reduction for high load tasks

3x

Difference between high-risk workers and the group average

Construction

CASE STUDY

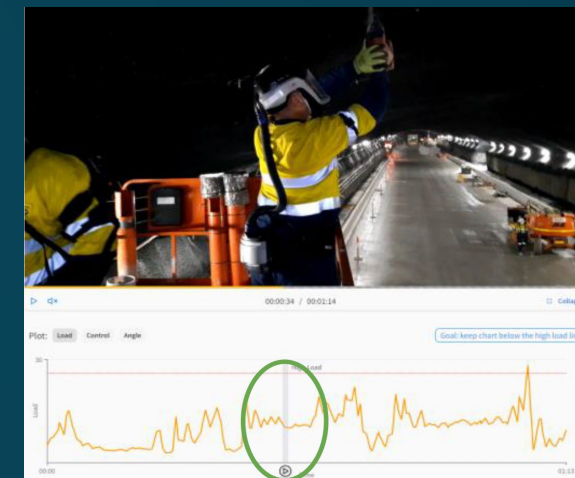
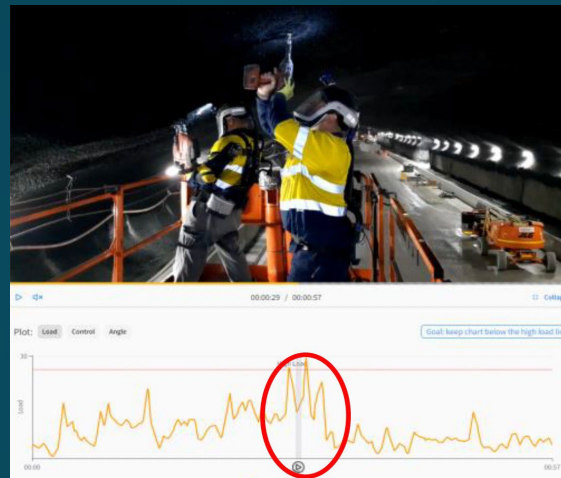
Reducing Task and Worker Injury Risk | **Task: Equipment Assessment**

Task Injury Risk Reduction – Key Finding

- Assessed load difference when overhead drilling with two different drill types
- Drill 1 (red circle) increased arm load by 34% compared to Drill 2 (green circle)

Worker Injury Risk Reduction – Key Finding

- 12 high-risk workers identified to have 4 times greater injury risk over the average
- Safety professional is enabled to take action with workers to decrease their risk



Key Outcomes

109

Reports recorded across 17 different workers and 3 locations

34%

Potential risk reduction for high load tasks

4x

Difference between high-risk workers and the group average

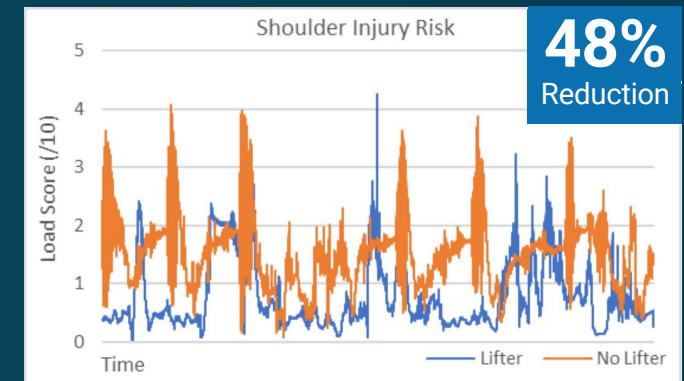
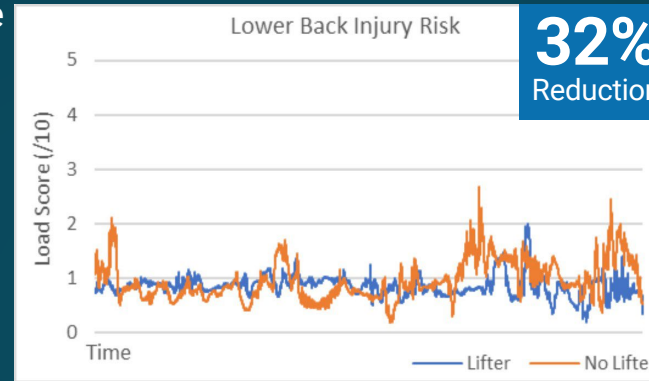
Food Processing

CASE STUDY

Reducing Task and Worker Injury Risk | **Task: Manual Handling Aid Assessment**

Task Injury Risk Reduction – Key Finding

- Assessed effectiveness of manual handling aid to move 20kg bags
- Proper use of the manual handling aid reduced stress on the back by 32% and arm by 48% compared to not using the aid



Worker Injury Risk Reduction – Key Finding

- 5 highest risk workers identified to have 4 times greater injury risk over the average
- Safety professional is enabled to take action with workers to decrease their risk

Key Outcomes

53

Reports recorded across 17 different workers and 3 locations

48%

Potential risk reduction for high load tasks

4x

Difference between high-risk workers and the group average

Industrial Manufacturing

CASE STUDY

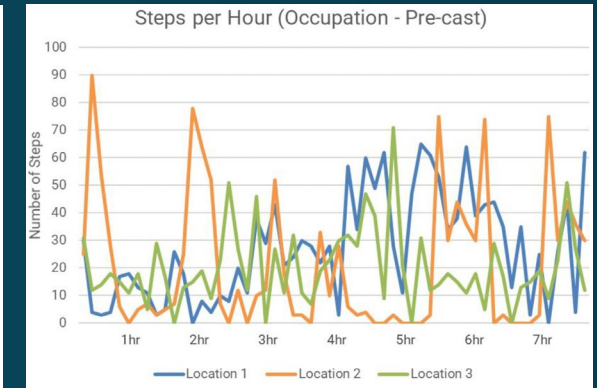
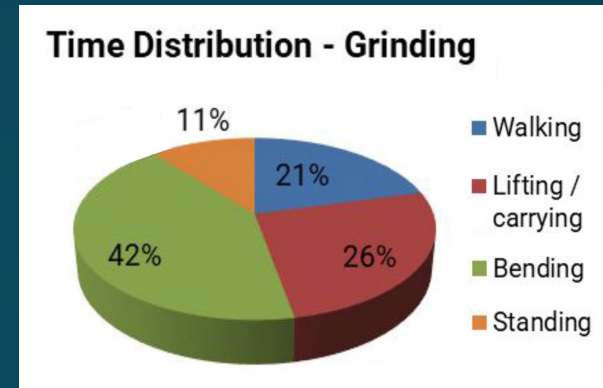
Reducing Task and Worker Injury Risk | **Task: Job Protocol Changes**

Task Injury Risk Reduction – Key Finding

- Assessed opportunity to reduce injury risk through task modification or changing operational procedures
- Added height adjustments to grinding bench to reduce bending. Introduced trolley to reduce lift/carry by 19%

Worker Injury Risk Reduction – Key Finding

- Identified workers at location 2 had higher slip/trip/fall injuries
- The work area to at location 2 was rearranged to reduce the need for walking



Key Outcomes

58

Reports recorded across 28 different workers and 3 locations

19%

Reduction in time spent lifting and carrying heavy loads

Mining and Natural Resources

CASE STUDY

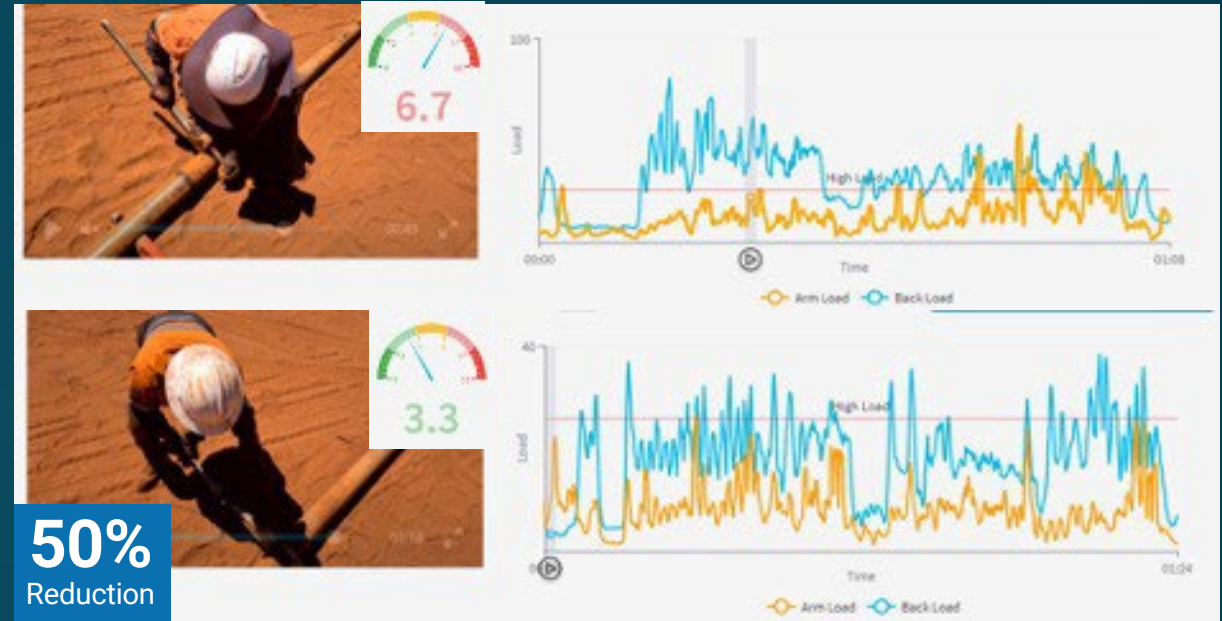
Reducing Task and Worker Injury Risk | **Task: Reducing Avoidable Injury Risk**

Task Injury Risk Reduction – Key Finding

- Assessed opportunity to reduce injury risk through task modification or changing operational procedures
- Using the correct technique reduced stressor score by 50%

Worker Injury Risk Reduction – Key Finding

- Identified a worker had a higher risk of a slip/trip/fall injury due to completing more steps during a shift compared to works with the same role
- Further assessment was able to identify and eliminate the bad movement habits of the worker



Key Outcomes

197

Reports recorded across 30 different workers and 3 locations

50%

Reduction in time spent lifting and carrying heavy loads

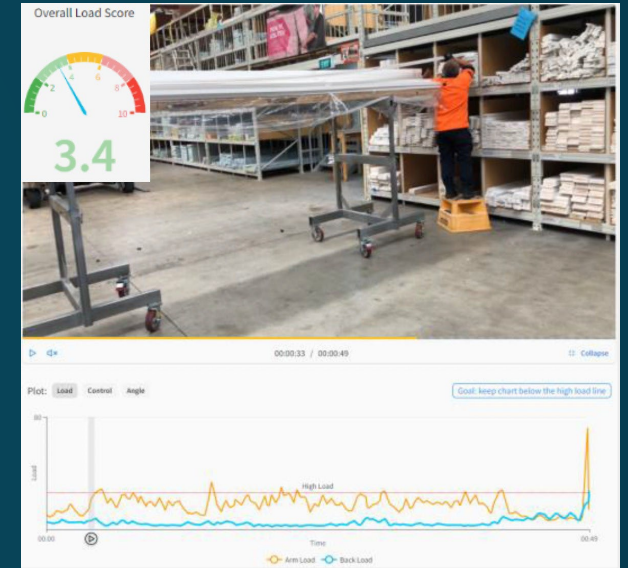
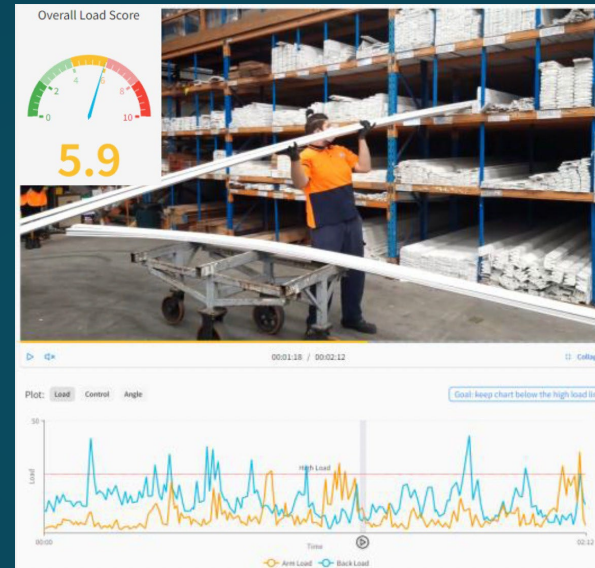
Retail Industry

CASE STUDY

Reducing Task and Worker Injury Risk | **Task: Job Protocol Changes**

Task Injury Risk Reduction – Key Finding

- Assessed the need for adjustable trolley to reduce bending and reaching
- Adjustable trolley reduced bending and reaching decreasing stressor score by 42%**



Worker Injury Risk Reduction – Key Finding

- 5 highest risk workers identified to have 4 times greater injury risk over the average**
- Safety professional is enabled to take action with workers to decrease their risk

Key Outcomes

1698

Reports recorded across
8 locations

42%

Potential risk reduction
for high load tasks

4x

Difference between high-risk
workers and the group average

Transport and Logistics

CASE STUDY

Reducing Task and Worker Injury Risk | **Task: Job Protocol Changes**

Task Injury Risk Reduction – Key Finding

- Assessed the need for modifying the job task protocol based on positional tolerance
- Changing technique enable the driver to keep their elbow closer to the body reducing arm stress by 39%



Worker Injury Risk Reduction – Key Finding

- 5 highest risk workers identified to have 4 times greater slip/trip/fall risk over the average
- Safety professional is enabled to take action with workers to decrease their risk

Key Outcomes

153

Reports recorded across
12 workers and 3 locations

39%

Potential risk reduction
for high load tasks

4x

Difference between high-risk
workers and the group average

Warehouse and Distribution Centers

CASE STUDY

Reducing Task and Worker Injury Risk | **Task:** Assessing Positional Demand of a Job

Task Injury Risk Reduction – Key Finding

- Assessed repetitive stress on the worker’s back when leaning and twisting to pick items in caged sections
- Removing cages and changing the position of the items reduced stressors by 46%

Worker Injury Risk Reduction – Key Finding

- Determined zones with highest demands to plan zone rotations to avoid overload
- Workers returning from injury avoided high demand zones (a worker returning from back injury would avoid Security and Bulk due to the bending requirement)

	Most Prevalant				Least Prevalant
Driving	High Cube (44%)	Main Floor (38%)	Bulk (25%)	Confection (21%)	Security (14%)
Walking	Confection (33%)	Bulk (24%)	Main Floor (24%)	High Cube (23%)	Security (16%)
Bending	Security (28%)	Bulk (23%)	Confection (22%)	Main Floor (15%)	High Cube (10%)
Reaching	Bulk (14%)	Security (9%)	High Cube (9%)	Confection (7%)	Main Floor (6%)
Carrying	Security (34%)	Confection (18%)	Main Floor (17%)	Bulk (15%)	High Cube (14%)

Key Outcomes

43

Reports recorded across 12 different workers and 5 locations

46%

Reduction in time spent lifting and carrying heavy loads