ViSafe™

REVOLUTIONARY WEARABLE SENSOR TECHNOLOGY

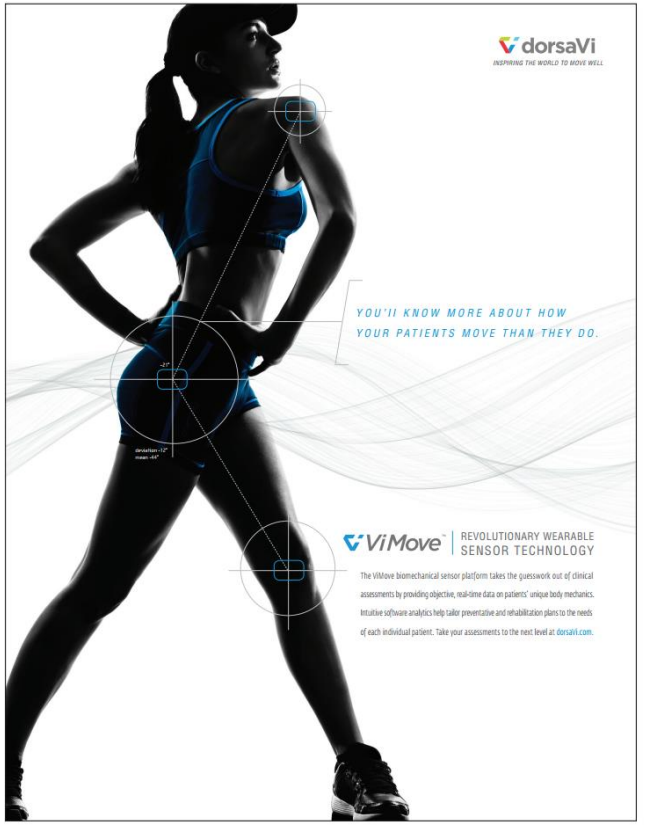
dorsaVi™

DORSAVI

dorsaVi Ltd (ASX: DVL) is an ASX company focused on developing innovative motion analysis device technologies for use in clinical practice, elite sports, and occupational health and safety.

Technology in development since 2000 with commercialization in 2013.

- Patented technology providing accurate movement analysis
- Products across three market segments: Clinical, OH&S and Sport
- FDA Clearance
- Due diligence for clinical market done-validation, reliability, RCT in low back pain



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WEARABLE SENSOR TECHNOLOGY

ViSafe Muscle Activity Sensors

ViSafe Movement Sensors

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HOW DOES MOVEMENT RELATE TO MUSCULOSKELETAL INJURIES?

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How does understanding movement help in these 3 sectors:

ViMove™

ViPerform™

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Movement data makes it clear where the focus is needed

	Hurdle Step				Overhead Squat		Inline Lunge			
	FX (°)	FX (°)	LFX (°)	LFX (°)	FX (°)	LFX (°)	FX (°)	FX (°)	LFX (°)	LFX (°)
#	L	R	L	R	-	-	L	R	L	R
0	11.5	19.1	1.8	-7.4	23.4	-1.8	9	6.3	2.9	3.1
10	16.5	17.8	7.2	-5.8	18.3	0.4	5.8	9.4	3.1	4.9
16	19.8	20.0	7.5	-5.8	21.3	3.5	8.2	8.7	7.1	6.8
49	10.2	12.5	10.4	-6.9	27.3	-0.5	4	3	2.5	1.3
3	8.2	10.0	7.8	-1.9	41.5	-0.2	5.9	4.7	3.5	2.9
5	16.9	20.0	3	-5.6	40.1	-4.9	-4.1	3.3	-4.9	3.9
41	15.3	17.5	10.9	-6.1	19.1	-1	5.5	7.1	5.4	8.2
21	23.8	22.3	10.3	-9.1	31.9	-2	3	5.8	4.1	1.7
50	17.1	14.9	8.2	-9.3	33.8	-1.9	8.7	9.2	1.9	7.4
14	22.2	27.7	9.1	-8.8	19.5	1	7	9	2.3	3.4
15	18.0	18.9	10.9	-5.8	39.9	2.5	6.7	10.5	5	8.6
24	23.2	31.0	6.2	-3.1	28.6	0.9	-5.4	-11.4	-6.4	-3.9
9	18.7	23.2	11.7	-7.1	24.9	3.1	5.3	6.7	1.4	1.4
47	13.0	14.2	11.1	-9.7	15.7	-1.8	3.5	2.6	2.8	4.9
32	17.1	25.6	13.2	-3	23.6	-2.1	-12.5	-6.6	-3.2	-6.7
4	19.1	32.4	6.5	-7.1	34.4	0.4	7.2	11.2	7.6	-6.7
13	19.0	30.4	8.1	-4.9	23.7	-2.2	11.4	8.4	5.4	7.8
34	19.7	13.9	14.1	-11	45	0	8.6	7.7	5.3	7.8
36	21.2	28.3	11.5	-10.5	25.2	-1.2	11.7	15	4.1	3.2
43	15.1	23.4	9.8	-8.5	30.1	-2.8	17.4	11.7	3.7	9.8
11	26.5	32.2	6.3	-7.1	37	2.1	6.2	8.1	4.1	2.6
27	5.1	16.2	7.2	-11.9	32.8	-0.1	9.2	12.6	3.3	10.6
1	14.6	26.0	8	1	34.9	5.5	9.1	17.7	4.2	8.1
48	20.9	23.8	13.9	-4	26	0.6	13.9	10.4	6.8	7.5
44	19.2	21.7	8.2	-9	47.8	-4.3	14.9	9.7	7.2	1.9
37	18.3	25.4	13.5	-8.5	26.3	2.7	6.8	10.1	5	3.9
39	27.6	23.9	13.4	-11.1	22.1	-0.8	6.8	8.9	3.3	10.1
40	28.4	38.5	10.8	-4.3	52.8	0.7	12.6	8.7	4	1.8
38	22.0	20.9	10.1	-7.9	43.4	-1.1	23.3	21	4.8	4.4
23	31.2	24.9	1.1	-2.6	16.1	-1.3	9.9	15.4	6.3	3.5
25	26.0	39.4	7.5	-6.6	42.4	-0.1	12.4	16.9	7	3.2
30	10.6	14.2	15.2	-12.7	29.1	1.5	2.2	8	3.6	10.4
2	19.1	16.1	9.2	-1.4	42.4	1.9	24.1	18.4	2.4	17.1
12	18.4	21.9	15.1	-5.4	32.4	0.6	13.8	22.6	7.2	11.9
17	24.8	24.0	16.5	-0.5	15.5	3.3	19.6	18.4	5.9	8
22	22.2	19.0	15.2	-10.6	52.2	-2	4.5	23.5	4.9	8.6
26	13.0	14.0	14.6	-9.6	47.1	-0.8	14.3	13.5	5.8	14.9
42	28.7	31.0	11.8	-4.7	44.9	-2.6	19.4	11.4	6.9	5.6
46	19.1	27.4	15.4	-4	13.1	2.5	15.9	12.5	5.8	11.2
20	26.5	28.8	15	-9.1	48	1.3	22.2	27	3.9	8.5
31	25.5	39.2	11.7	-4.8	41.7	-0.6	19.1	21.6	4	5.7
33	22.9	30.2	14.6	-1.1	50.2	4.7	16.4	15.2	2.4	5.3
18	30.9	27.5	13.1	-8.6	49	-5	21.2	15.7	-12.9	13.7

Top 3 players played all 22 games

Lower 8 players missed an average of 8 games

GOOD

MONITOR

OUTSIDE TEAM NORM

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HOW DOES MOVEMENT CONTRIBUTE TO WMSDS

Body position

When parts of the body are near the extremes of their range of movements, stretching and compression of tendons and nerves occur. For example sustained forward flexion of spine over 40 degrees

Holding the neck and the shoulders in a fixed position

To perform any controlled movement with the arm, muscles in the shoulder and the neck contract and stay contracted for as long as the task requires.

Vibration

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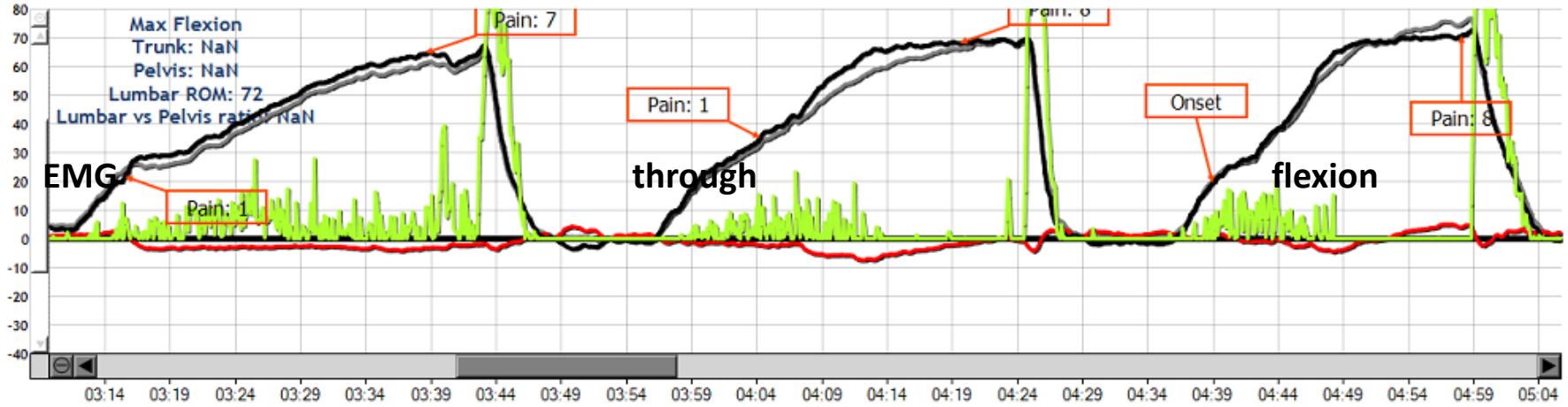
HOW DOES NORMAL & ABNORMAL LOW BACK MOVEMENT LOOK?

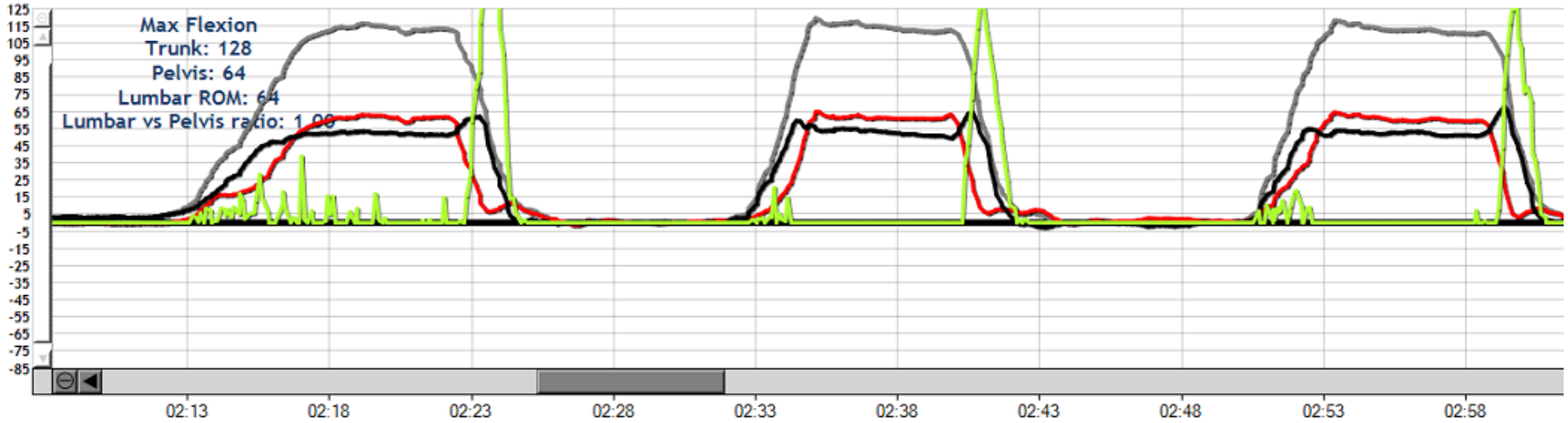
Abnormal Flexion Pattern

- **No pelvic movement**
- **High range of movement**

Session one



Session eight



Same Patient Regained

- Normal Flexion Pattern
- Normal pelvic movement
- Minimal EMG through flexion range of movement

WHAT DIFFERENCE DOES VISAFE MAKE?

- **Large Casino Group**
  - Reduced injuries on particular role from 72 injuries to 1 after dorsaVi intervention measured the same quarter following year

- **Large retail chain**
  - Since dorsaVi they have experienced a 50% reduction in LTIFRs

- **Large supermarket chain**
  - 87% reduction in manual handling injuries on task assessment post dorsaVi

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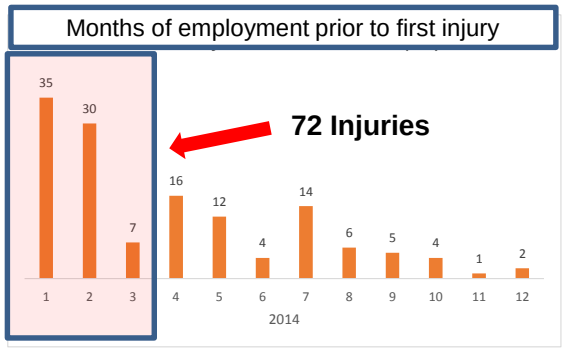
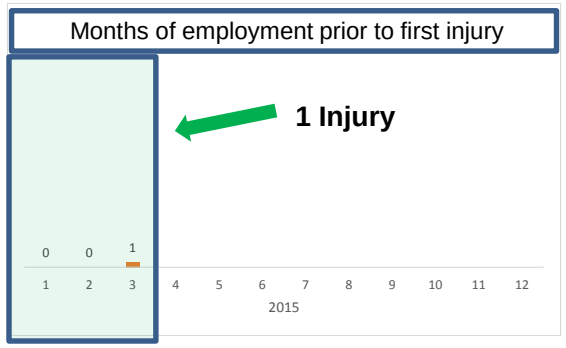
HOW WE MADE A DIFFERENCE TO THIS CLIENT

- Assessed specific work task
- Used dorsaVi sensors to identify risk & plan changes
- Pre- employment screening
- 300+ screenings performed
- Optimised training protocol – benchmarking



Prior to dorsaVi intervention



After dorsaVi intervention

72 injuries Q1 2014

↓

1 injury Q1 2015

by

- Customised Screening
- Employees suited to task
- Improved work design

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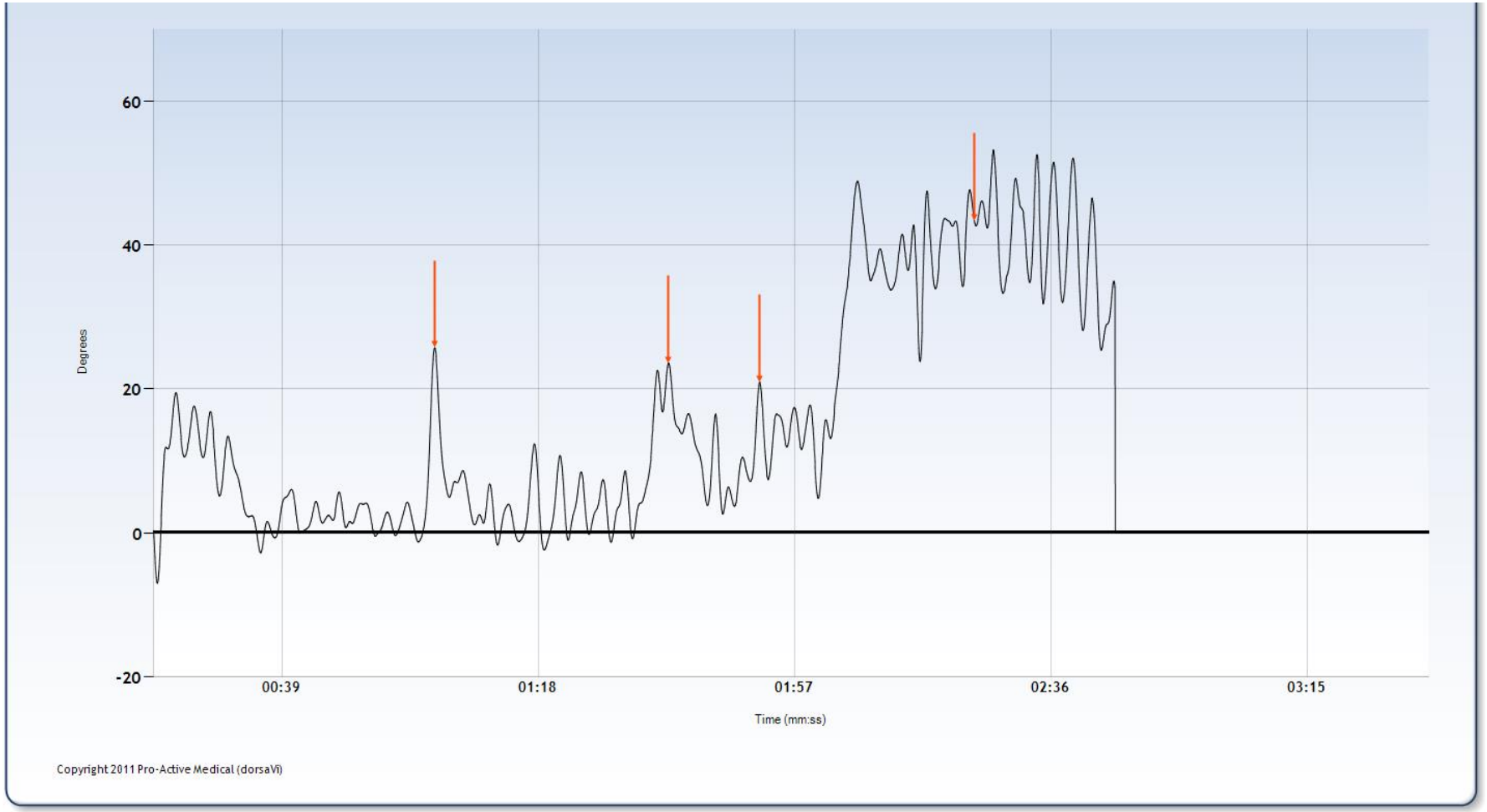
MILK CRATE (PROPOSED PROCESS) – 4 BENDS UNLOADING 5 CRATES



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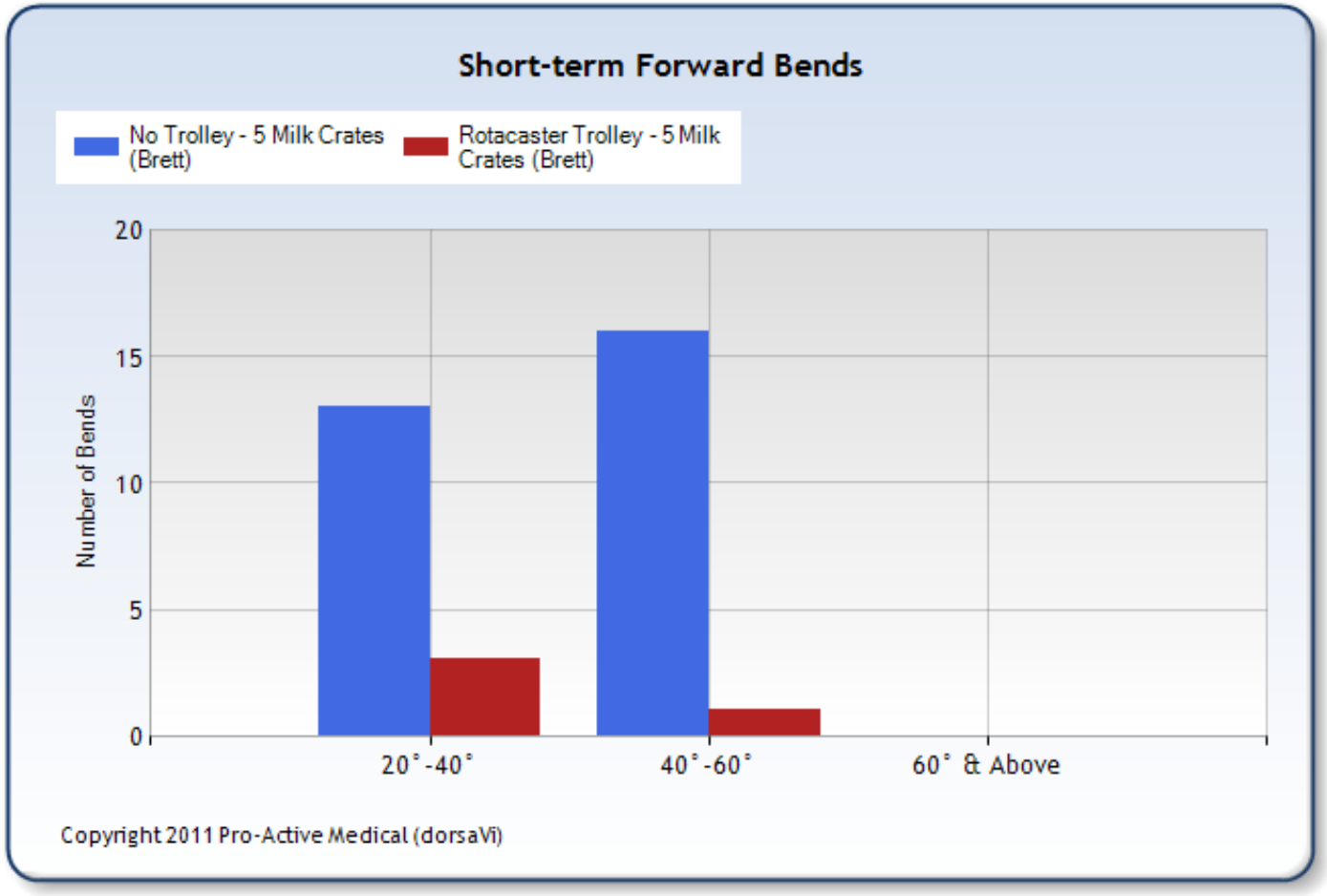
MILK CRATE COMPARATIVE ASSESSMENT (SUMMARY)



- 87% reduction in forward bends > 20° (30 bends versus 4 bends)
- 21% reduction in time (44 secs less time)
- CFO & store manager approval

87% reduction in milk loading injuries in 12 months following trolley change

WHO WE WORK WITH

Manufacturing	VISY, ORORA, Bradnam's windows & doors, CAT, astins, TOYOTA
Retail	bp, The Salvation Army, SPECIALTY FASHION | GROUP, Woolworths, coles liquor
Utilities	SEVERN TRENT WATER, CITIPOWER, Powercor AUSTRALIA
Transport	Transport for London, TOLL, Heathrow, MB MARTINBROWER, LINFOX
Healthcare	MonashHealth, Silver Chain, Peninsula Health
Hospitality	CROWN
Resources	bhpbilliton, sano HEALTH
Construction	SKANSKA, VINCI, McCONNELL DOWELL CREATIVE CONSTRUCTION™
Others	Lort Smith ANIMAL HOSPITAL, TRANSFIELD SERVICES, POLICE OFFICER, Allianz, SYDNEY OPERA HOUSE, sodexo, KENNARDS HIRE, AIG, ViSafe™

EVIDENCE COMPARING METHODS OR EQUIPMENT

MINING EXAMPLE

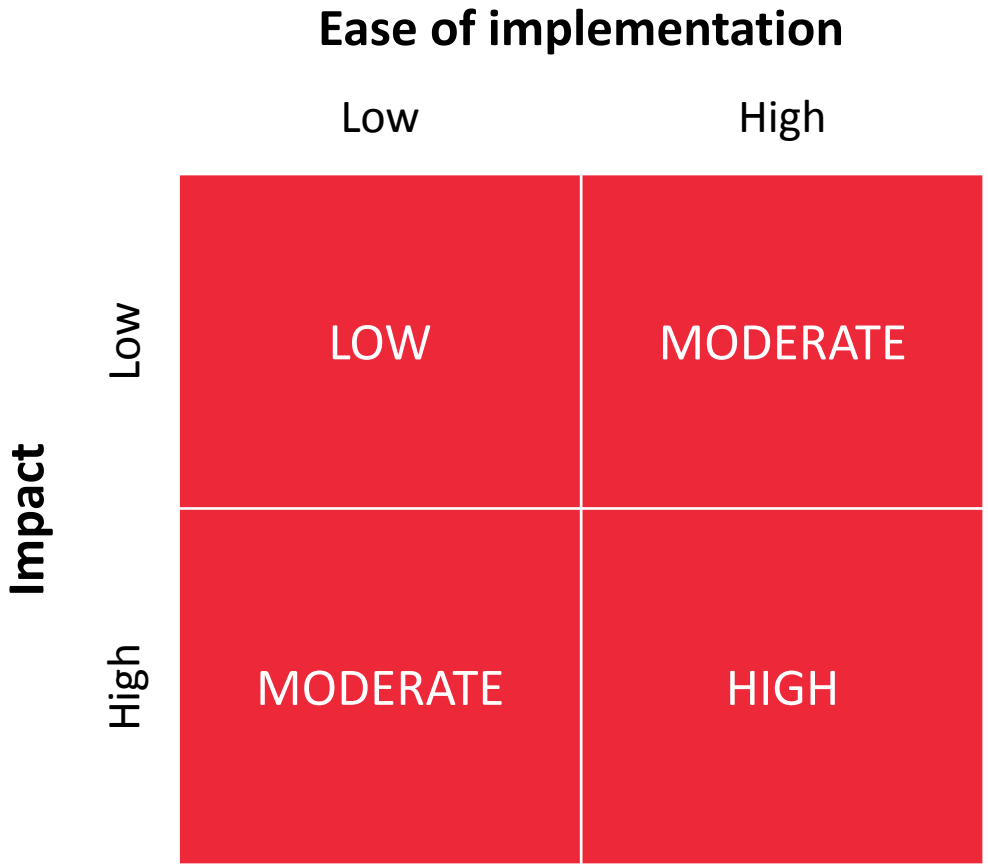
PROPOSED INTERVENTIONS - PRIORITIZATION METHODOLOGY

Impact

- Reduction in manual handling load, force or number of repetitions.
- Improvement in best practice factors.
- Number of personnel or areas affected.
- Savings: costs, time.

Ease of Implementation

- Actions required.
- Costs to implement.
- Time required to implement.



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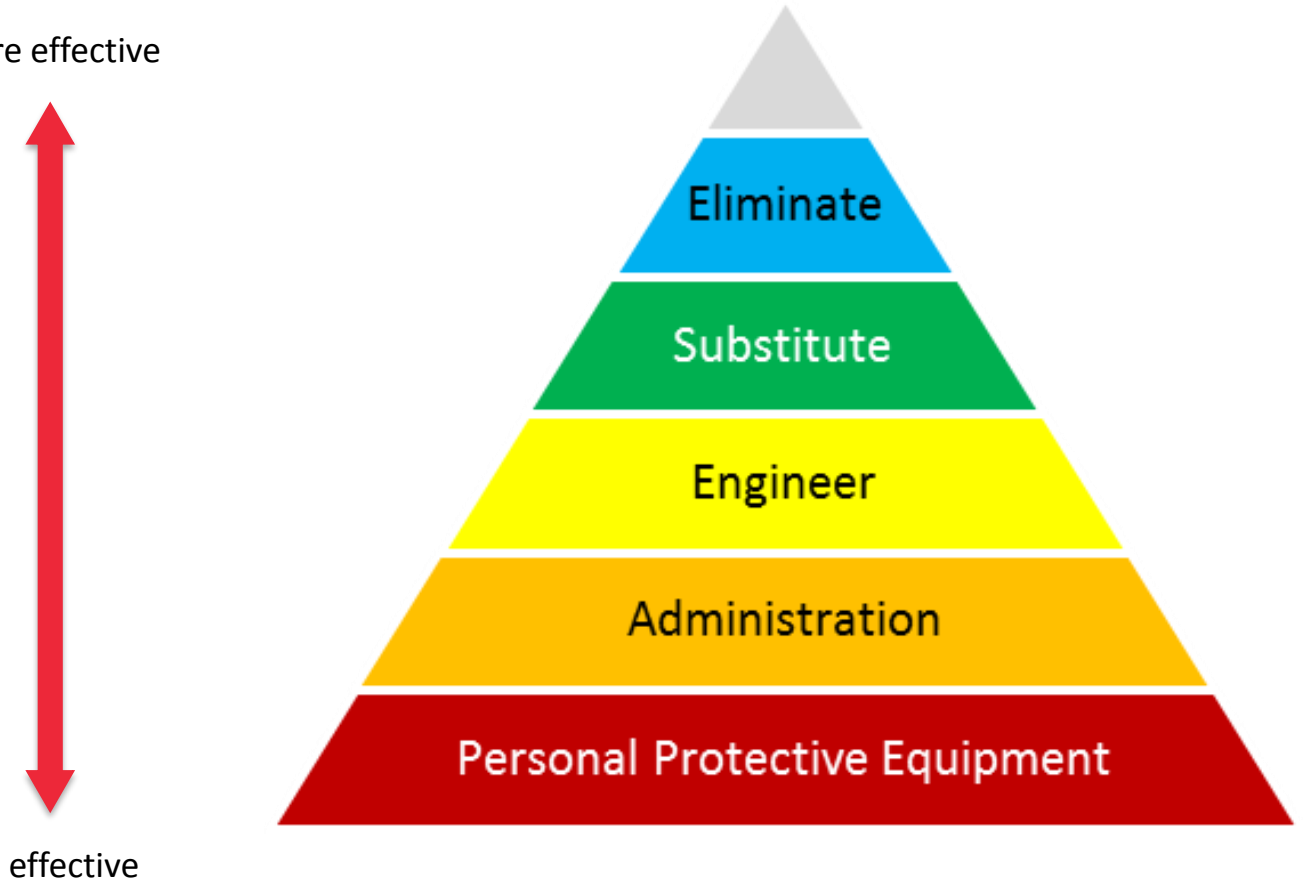
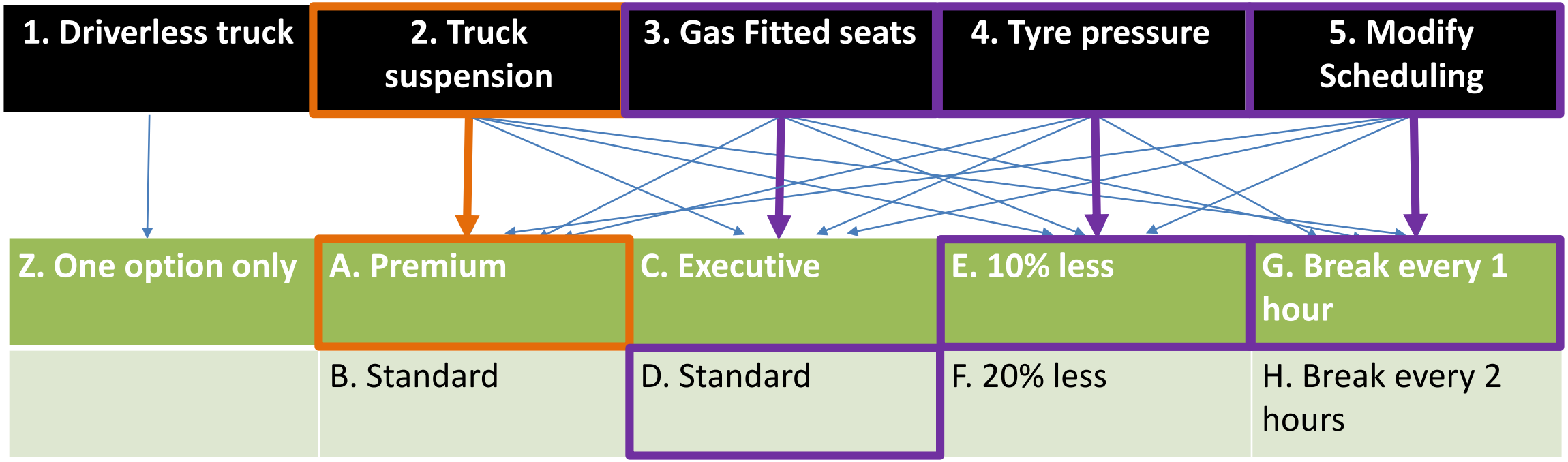
PROPOSED INTERVENTIONS - PRIORITIZATION METHODOLOGY

More effective



Less effective

DRIVERS HAVING LOW BACK INJURIES – HOW DO YOU REDUCE RISK?



2A only at a cost of $7.5M

3D, 4E and 5G at a cost of $0.5M

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THEN HOW DO YOU MAINTAIN LOW INJURY RATES?

Manual Handling Risk Matrix

Likelihood		Consequence				
		VL - 1	L - 2	M - 3	H - 4	VH - 5
	VL - 1	VL 1	VL 2	VL 3	L 4	L 5
	L - 2	VL 2	L 4	L 6	M 8	M 10
	M - 3	VL 3	L 6	M 9	M 12	H 15
	H - 4	L 4	M 8	M 12	H 16	
	VH - 5	L 5	M 10	H 15	VH 20	VH 25

THEN HOW CAN DORSAVI HELP IMPROVE RTW OUTCOMES

- Workers can wear the sensors for up to 24/7
- Monitoring allows you to analyse what the worker is doing at work or at home that is impacting RTW or CWC
- Biofeedback allows you to program restrictions and alert the worker of ‘at risk’ movements in real time and real life - guides movement behaviour, avoids aggravation, sustains RTW
- Baseline Assessments can guide when RTW is appropriate
- Monitor and manage treatment effectiveness

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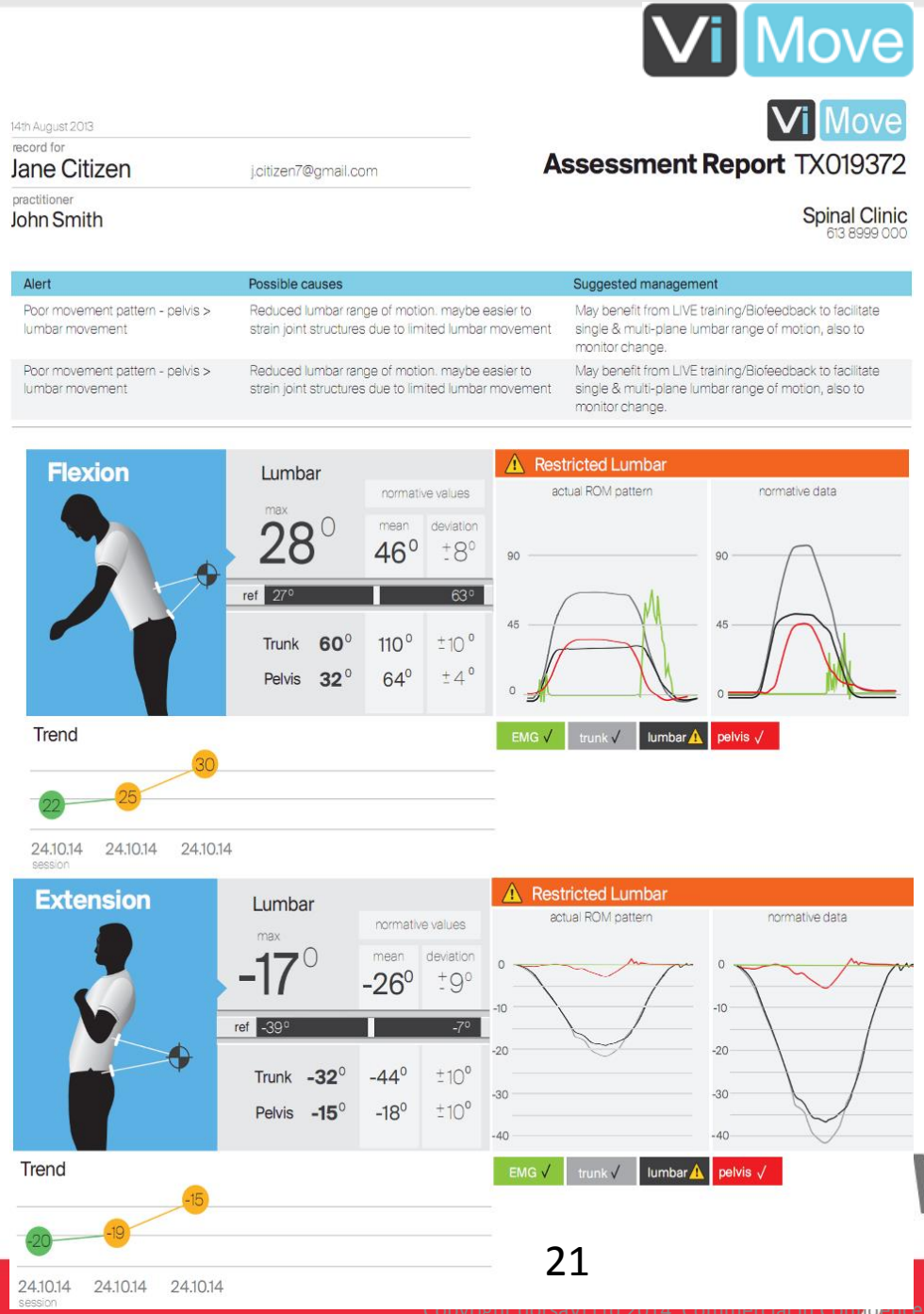
DORSAVI TECHNOLOGY ASSISTING RETURN TO WORK

REPORTING

- ViMove delivers easy to read analytics to your desktop in real time
- Assessment Report
  - Normative values
  - Map progression
- Monitoring / Biofeedback



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DORSAVI TECHNOLOGY IMPROVING THE HEALTH OF WORKERS

- Objective data for evidence based decision making
- Detailed Task Profiling and Return on Investment Modelling for interventions
- Technology can be used for injury prevention and improving RTW outcomes
- Manual Handling Training that makes a difference
- Experience across a range of industries

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