



Experience Report

BACK-A-LINE DYNAMIC BACK SUPPORT

Back-A-Line, Inc.

Background

With nearly twenty years of experience, and particularly since the 2003 NIOSH (National Institute for Occupational Safety and Health)-Walmart study of 11,000 employees (and the 1994 NIOSH study), the safety industry has come to recognize that *elastic girdle back belts provide no real reduction in back pain or injuries*. While it is now proven that *elastic back belts “do not work”*, the need and hope for a solution to the serious and expensive issue of back pain and injury in the workplace remains.

More than 18 years ago, Back-A-Line recognized a different solution: rather than rely on elastic which leads to muscle weakness and atrophy, the Company developed and patented a “curved-and-firm” pad within a non-stretch belt, which became the Back-A-Line Dynamic Back Support. University studies (Harvard and Miami University) proved that such a pad creates “proprioceptive feedback”, which creates a “positive protective effect”. How? This dynamic feedback works to:

- ♦ correct posture and minimize postural transitions, allowing the spinal muscles to work naturally, and
- ♦ in conjunction with the non-stretch belt, activate abdominal muscles to rigidify (not atrophy) the trunk.

The Back-A-Line Dynamic Back Support was later granted the Seal of Acceptance by the American Osteopathic Academy of Sports Medicine--the only product ever granted the Seal.

Thus, the ergonomic science is clear. However, has real-world experience with the Back-A-Line Dynamic Back Support *proven* these claims?

Rather than conduct internal tests alone, over the past few years Back-A-Line has progressively built an *independent, in-the-workplace* experience base. By the close of 2012, this experience base had reached a level where the results could be accepted as comprehensive, statistically significant, and applicable. At this time, the Company has conducted 58 tests, involving 55 corporations, 2 public entities, and the U.S. Army, collectively comprising more than 1,700 people.

The results of the independent *experience* have been *consistent, strong, and reliable*. Based on this experience, Back-A-Line shifted its focus from “tests” to allowing large customers to undertake product demonstrations to show real-world results, and then to pay *only* if completely satisfied with the performance results. To date, the Company has never had a Back Support returned due to a less-than satisfactory outcome.

This report summarizes the experience of a large subset of companies within this body of tests, where deep numerical data was provided to the Company. As a matter of confidentiality, individual Company names are not included in this report.

Experience

“Tests” were conducted over several years in the following industries: air transport, food/grocery, health care, other transport, manufacturing, and services, as well as the public sector and the U.S. Army. Tests were conducted over a wide variety of actions, situations, and settings. Tests typically included 20-30 people, who evaluated their back pain levels (on a five-level scale ranging from “no pain” to “unable to concentrate”) prior to using the Back-A-Line Dynamic Back Supports, and then evaluated their back pain level again (after using the Supports) in 30-60 days. Results were reported in all test cases, with specific deep-data provided to Back-A-Line in 35% of the cases.

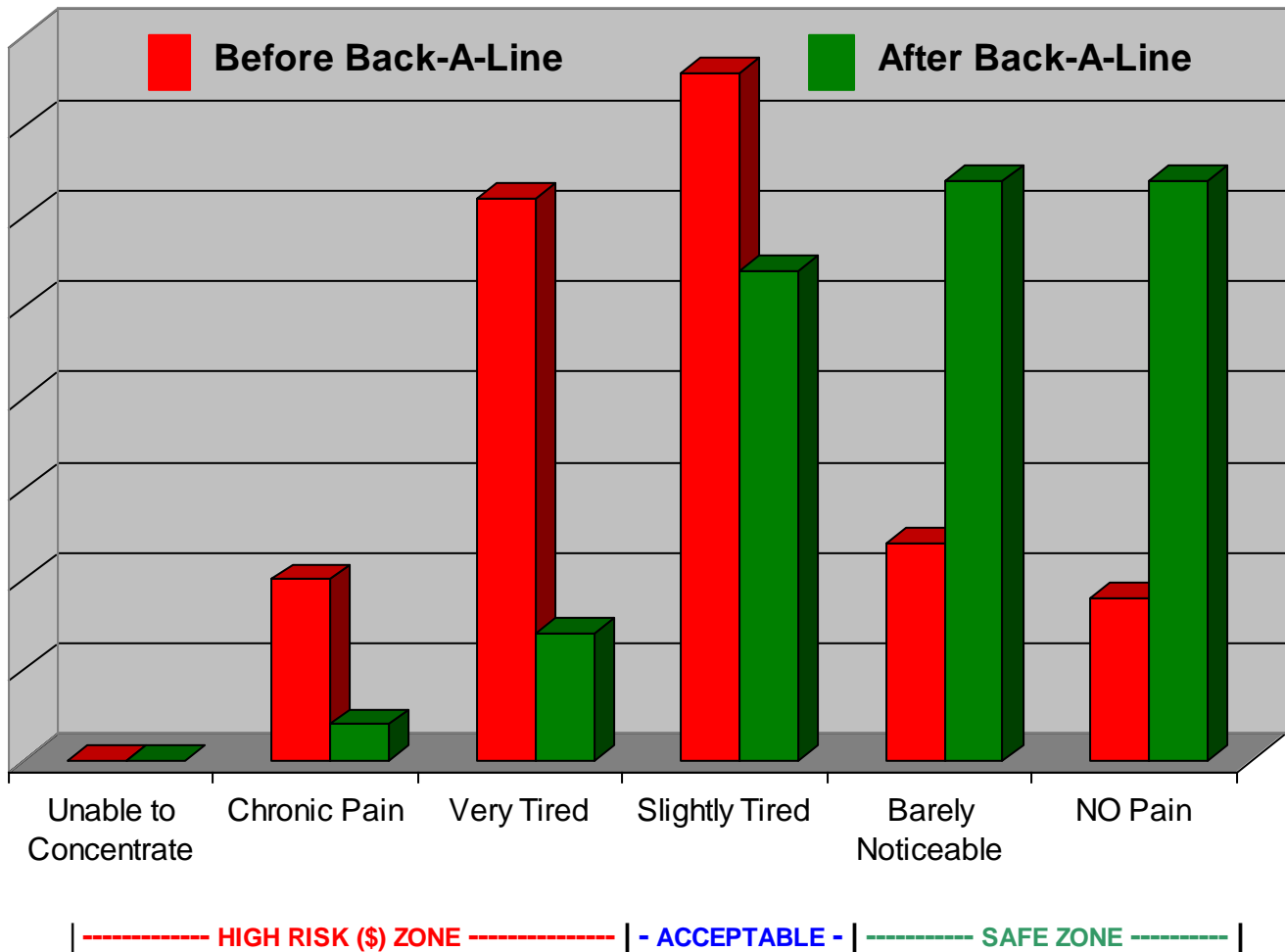
Results across the tests were *consistently positive*, meaning all tests produced similar results with no significant negative variation.

Of particular note, the Company has *never had a “failed” test*, defined as a test in which there was not significant improvement in conditions. As stated above, the Company has *never had a Back Support returned* due to a less-than-satisfactory outcome.

The following pages highlight the real-world experience regarding pain/fatigue and injuries.

Total Industry Results

The chart below shows the dramatic positive improvement from the Back-A-Line Support across all industries:



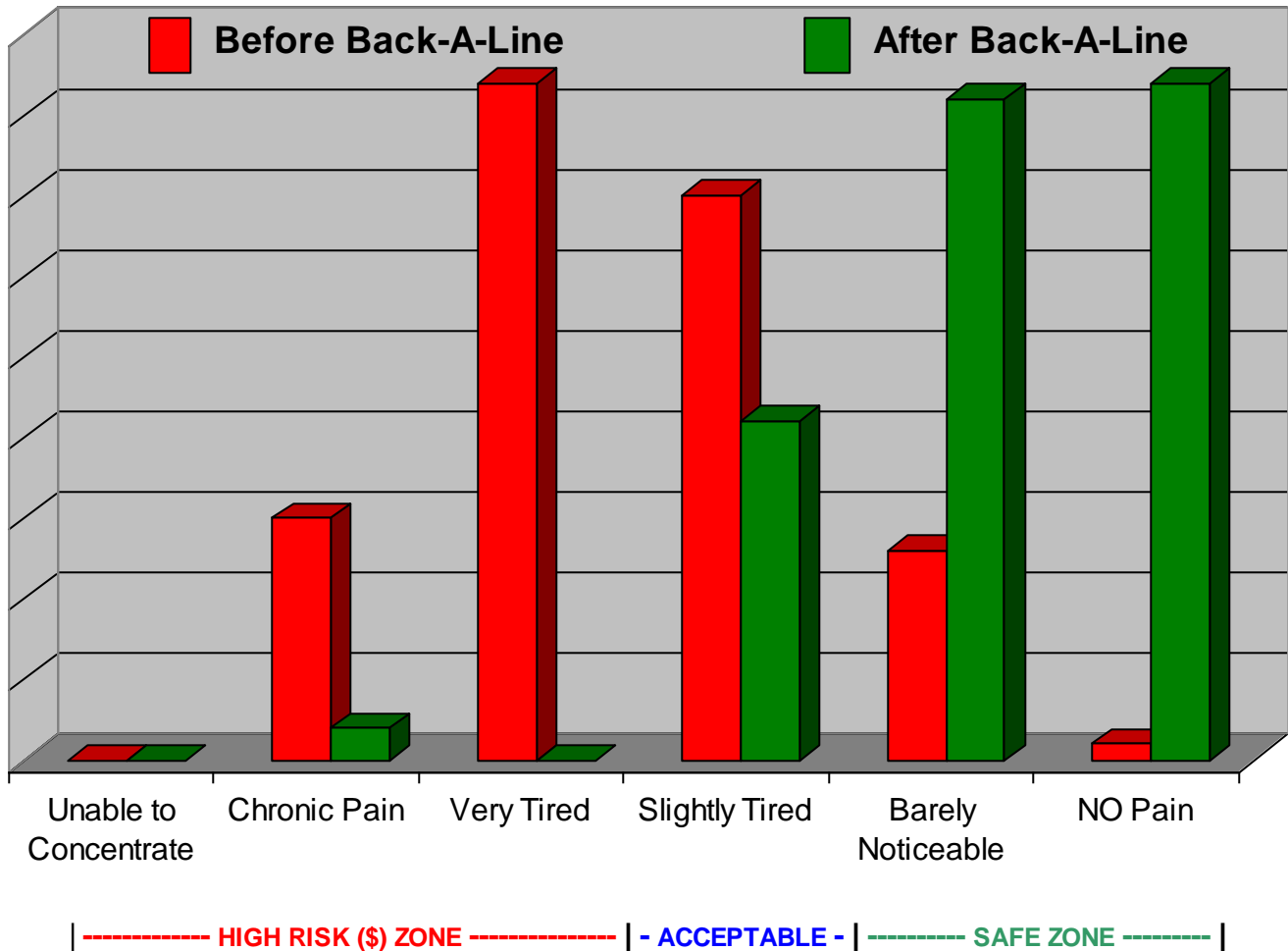
Specifically, across all companies:

- ◆ There is a 77.5% drop in workers in the “High Risk Zone”, i.e. reporting “chronic pain” or routinely “very tired” prior to the test
- ◆ 71% of workers with any problem report improvement across the levels of pain (on a five-level scale)

Baggage Handlers

The baggage handling industry is illustrative because, not only did it fare better in pain/injury reduction when lined up against the typical industrial applications shown on the previous page – even with heavier weights and excessive torquing, but also because there were four separate baggage handling demos, all with nearly identical metrics, showing dramatic, and consistent results.

The experience report is even more dramatic in this industry!



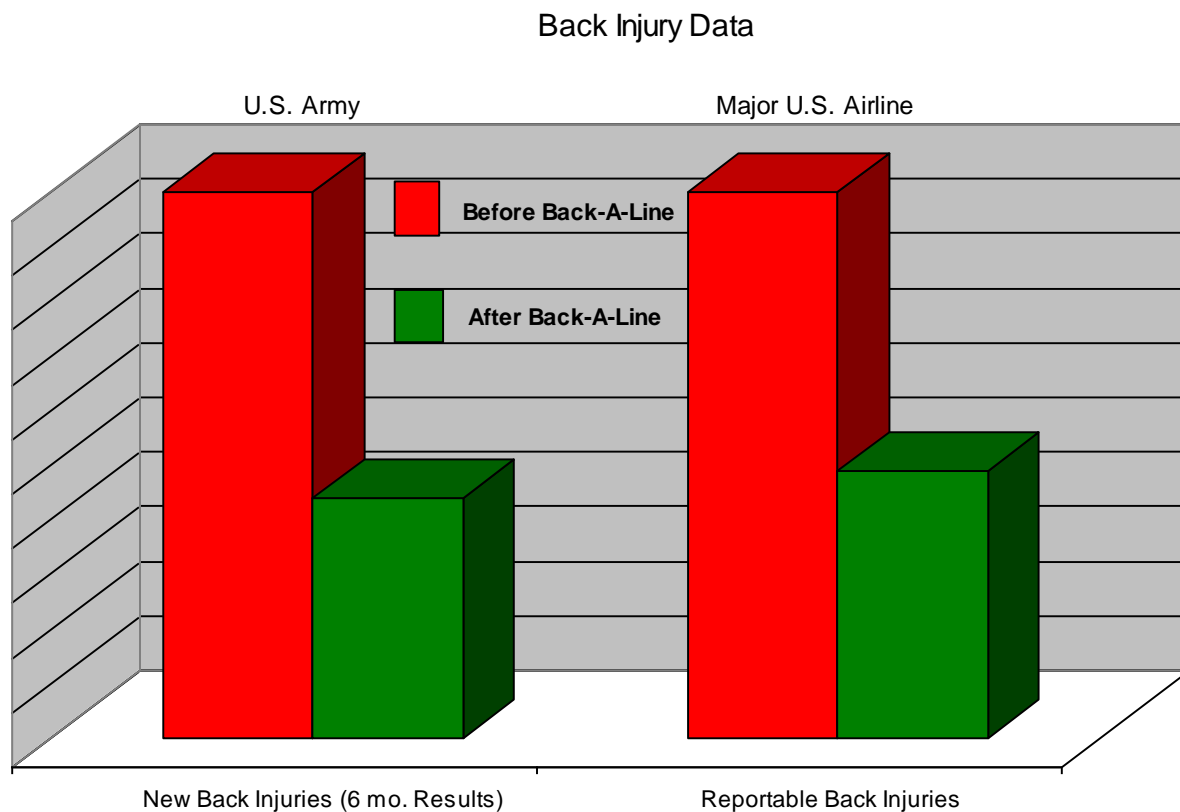
Of particular note:

- ◆ The number of workers in the “High Risk Zone” was reduced 95%: 56% of the loaders were in the “High Risk Zone” before using Back Supports, 3% were in the “High Risk Zone” after
- ◆ Again, 66% of loaders experienced improvement across the levels of pain

Injuries

Reportable injury experiences were documented by the U.S. Army and a U.S.-based major international airline. In both cases, the improvements were *dramatic*!

The Army reported a drop of 66% in back injuries, and the airline experienced a 49% drop in OSHA reportable back injuries during its partial rollout of Back-A-Line Supports over the period.



For the Army, lower back injuries were the #1 injury profile, representing 23% of all injuries. Using the medically-proven “Oswestry protocol”, their test was conducted in Afghanistan over one year, with 200 pilots and materiel off-loaders.

The U.S.-based major international airline experienced a 49% drop in reportable injuries. With this experience, the airline decided to equip its ramploaders around the globe with Dynamic Back Supports, numbering in the thousands of units and at this date, in more than 48 locations.

Summary

Given the level, breadth, and consistency of the data and experience, the results of using the Back-A-Line Dynamic Back Support can be accepted as *comprehensive, statistically conclusive*, fully drawn from *real-world* (vs. theoretical) applications, and **of sufficient weight to ensure reliability in forecasting future results.**

In other words, the **Back-A-Line Dynamic Back Support** has now been *proven by experience in real-world applications to provide real and significant reductions in back pain and injuries.*

APPENDIX:

Test Performance Grids

SPECIFIC RESULTS

58 tests

Improved
No change
Worse

TOTAL RESULTS

		AFTER							
		0	1	2	3	4	5		
BEFORE	5	0	0	0	0	0	2	2	0%
	4	31	19	43	43	43	0	179	10%
	3	89	164	245	55	0	0	553	31%
	2	185	250	218	26	0	0	679	38%
	1	97	110	7	0	0	0	214	12%
	0	149	12	0	0	0	0	161	9%
		551	555	513	124	43	2		
		31%	31%	29%	7%	2%	0%		

Ratings

- 5 Unable to concentrate
- 4 Chronic "Pain"
- 3 Significantly "Tired"
- 2 Slightly "Tired"
- 1 Barely Noticeable
- 0 No Pain Ever

OVERALL

1166	65%	577	32%	45	3%
Improved		No Change		Worse	

Of Those With Any Problems (no 0's)

1166	72%	428	26%	33	2%
Improved		No Change		Worse	

INDUSTRIES TESTED (Partial List)

Airline

Auto Parts

Furniture Manufacturing

Hospitality

Public Transportation

Hospitals

Nursing Homes

Warehousing

Food Processing