

stryker

**Safe patient
handling**
solutions for EMS



Proven to save guarantee^{14,15}

100% **reduction** in
missed safety hooks

At Stryker we stand behind our products. For qualifying purchasers¹⁴, upon standardization, Stryker offers a program that guarantees at least a **50% reduction** in cot-related injuries pertaining to raising, lowering, loading and unloading cots and **100% reduction** in missed safety hooks while unloading cots with the Power-PRO and Power-LOAD in full power operation. If not, Stryker will refund the price paid for the Power-PRO cots and Power-LOAD cot fastening systems.¹⁵

50% **reduction**
in cot-related injuries

How do we keep EMS personnel from becoming patients?

It's a costly problem that may get worse

Powerful solutions for patient care



EMS workers experience rates of musculoskeletal injuries from overexertion **5X** more often than the average US worker. The single greatest risk factor for overexertion injuries for healthcare workers is manual patient handling¹.

More than 30 years of research and experience shows that relying on proper body mechanics or manual lifting techniques alone is not effective to reduce back and other musculoskeletal injuries².

Who takes care of patients when EMS personnel are injured on the job?



10%

At any given time, 10% of the EMS workforce is out of work due to injury³.

1 in 4

EMS workers suffer a career-ending back injury within the first four years of employment⁴.

78%

Low back strain was the cause of 78% of compensation days in the US⁵.

\$ 69,594

cost of a typical strain injury (\$33,140 direct and \$36,454 indirect costs)⁶

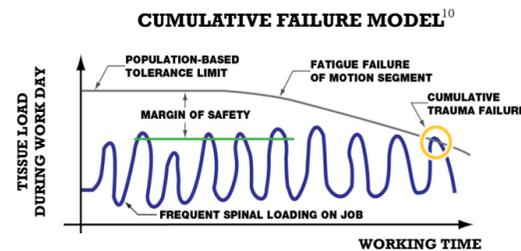
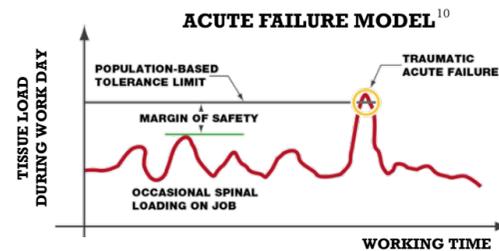
15%

forecasted growth in demand for EMTs and Paramedics from 2016 to 2026⁷

\$ 71,613

weighted median annual total cost of turnover across agencies that experienced turnover⁸

Stop lifting, start loading



50 lbs.

OSHA states that lifting loads heavier than about 50 pounds will increase the risk of injury⁹.

Cumulative Trauma

Injury is the result of accumulated trauma produced by either the repeated application of relatively low load or the application of a sustained load for a long duration¹⁰.

Powered System



LUCAS 3, v3.1
chest compression system



Power-PRO XT
powered ambulance cot

Power-LOAD
cot fastening system

Customer successes

100%

reduction in cot related injuries saved one service \$545,500 in 4.5 years¹¹.

99%

of those surveyed agree that Stryker's Powered System has made their job easier¹².

98%

of those surveyed agree the LUCAS chest compression system has made their job easier when treating cardiac arrest patients.¹³

Saving lives shouldn't be back breaking

Maintaining high-quality CPR throughout the length of a code is a fundamental element of a successful resuscitation. Some patients will require ongoing chest compressions during transport, however it is well known that it's nearly impossible to provide effective CPR with minimal interruptions in a moving ambulance. In addition, performing manual chest compressions during ambulance transport puts the caregivers' safety at risk.



The LUCAS® chest compression system provides high-quality, Guidelines-consistent chest compressions in any environment for as long as needed*, allowing EMS personnel to remain seated and safely belted in the ambulance during transport.

30-40%

of patients who achieve ROSC will re-arrest prior to hospital arrival ^{16, 17}

6.5X

In the 4,500 ambulance accidents each year unrestrained occupants are 6.5 times more likely to be severely injured. ^{18,19}

60%

CPR causes back pain in 60% of EMS personnel. ²⁰

1. <https://www.cdc.gov/niosh/topics/safepatient/default.html>
2. https://www.osha.gov/dsg/hospitals/documents/3.1_Mythbusters_508.pdf
3. Studnek JR, Ferketich A, Crawford JM. On the job illness and injury resulting in lost work time among a national cohort of emergency medical services professionals. *Am J Ind Med*, 2007 Dec; 50(12): 921-31
4. Sanders, Mick J. (2011) *Mosby's Paramedic Textbook* (4th ed. P 36)
5. <https://www.sciencedirect.com/science/article/pii/S073567579090081A>
6. <https://www.osha.gov/dcsp/smallbusiness/safetypays/estimator.html>. As of August 1, 2018 with a 3% profit margin for strain.
7. <https://www.bls.gov/ooh/healthcare/ems-and-paramedics.htm>
8. Patterson PD, Jones CB, Hubble MW, Carr M, Weaver MD, Engberg J, Castle NG. The longitudinal study of turnover and the cost of turnover in emergency medical services. *Prehosp Emerg Care*. 2010;14:209-221
9. <https://www.osha.gov/SLTC/etools/electricalcontractors/materials/heavy.html>
10. McGill, Stuart M. (1997) *The Biomechanics of a Low Back Injury: Implications on Current Practice in Industry and the Clinic*.
11. Reference: Stryker (2018). EMSStat – Norman Regional Health System Case Study (Case Study on Power-PRO XT cots and Power-LOAD cot fastening systems). Retrieved from: <http://ems.stryker.com>
12. Reference: Stryker (2016). Staff Satisfaction Case Study (Case Study on Power-PRO XT cots and Power-LOAD cot fastening systems). Retrieved from: <http://ems.stryker.com>
13. Reference: Stryker (2019). Staff Satisfaction Case Study (Case Study on LUCAS chest compression system). Retrieved from: <http://ems.stryker.com>
14. Please contact your sales representative to see if you qualify for the EMS Guarantee.
15. Subject to the terms and conditions of EMS proven to save guarantee agreement.
16. Salcido DD, Stephenson AM, Condie JP et al., Incidence of re-arrest of spontaneous circulation in out-of-hospital cardiac arrest. *Prehosp Emerg Care*. 2010;14(4):413-8.
17. Lerner EB, O'Connell M, Pirralo RG. Rearrest after prehospital resuscitation. *Prehosp Emerg Care*. 2011;15(1):50-4.
18. Becker L, Zaloshnja E, Levick N, et al. Relative risk of injury and death in ambulances and other emergency vehicles. *Accident analysis and prevention* 2003; 35(6): 941-948.
19. NHTSA's Fatality Analysis Reporting System (FARS) 1992-2010 Final and 2011 Annual Report File (ARF) and National Automotive Sampling System (NASS) General Estimates System (GES), 1992-2011. <http://www.ems.gov/pdf/GrundAmbulanceCrashesPresentation.pdf>
20. Jones A, Lee R. Cardiopulmonary resuscitation and back injury in ambulance officers. *International Archives of Occupational and Environmental Health*. 2005 May; 78 (4); 332-336.

*See LUCAS Instructions For Use for details on environmental and operational specifications.