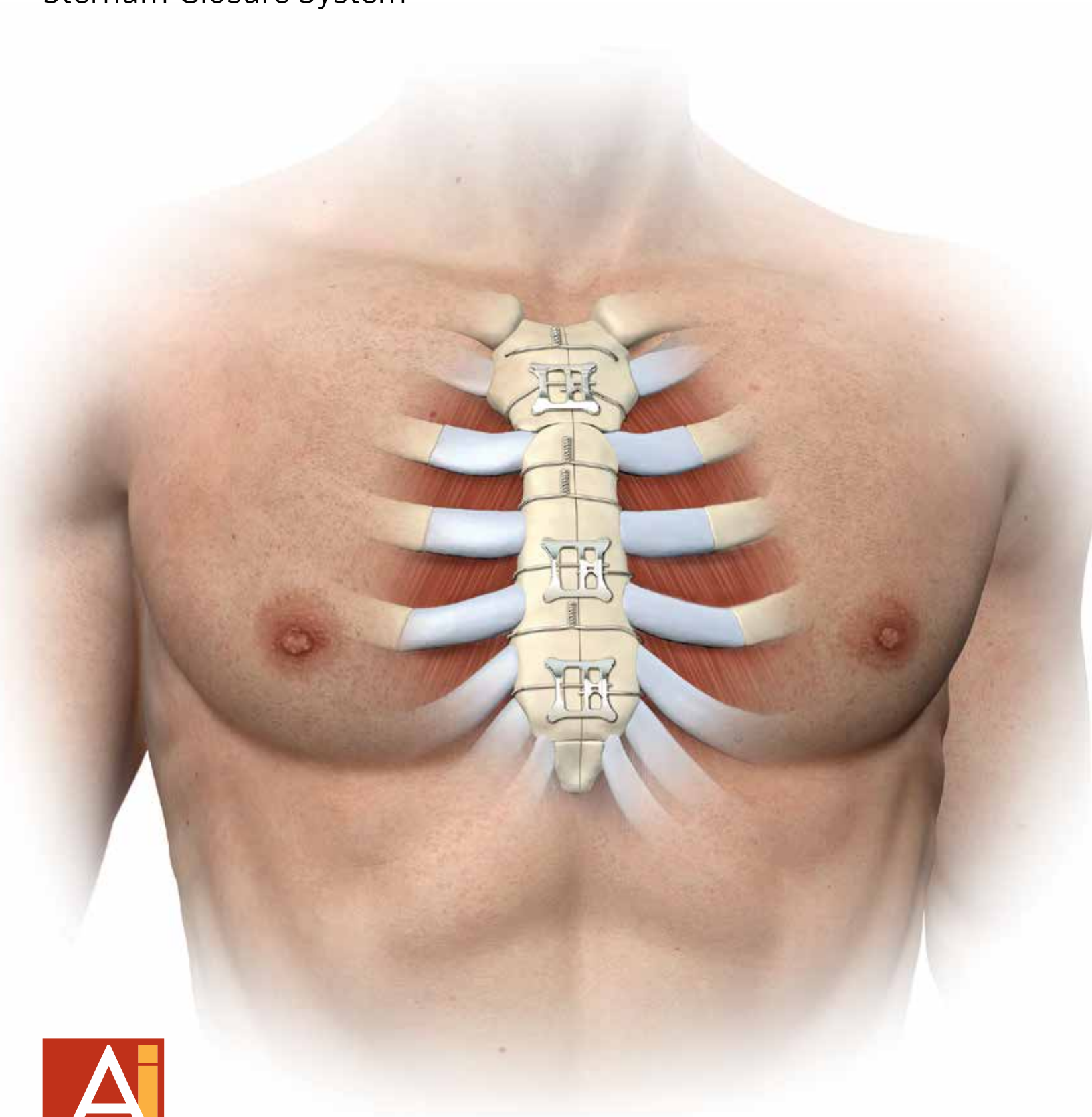


AcuTie® II

The Next Generation
Sternum Closure System



Innovative Solutions for Challenging Thoracic Procedures

AcuTie® II is the next generation sternum closure system that combines the simplicity of standard wire cerclage with increased compression, stability in multiple planes, lateral protection, and straightforward installation.



EASY TO USE

Feed

Tension

Crimp

COMPLETE STABILITY

Offers stability in all three planes

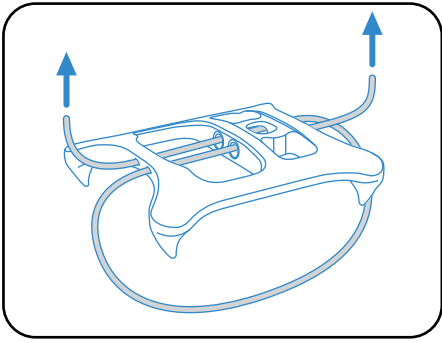
Enhances compression

Reduces stress on lateral edge

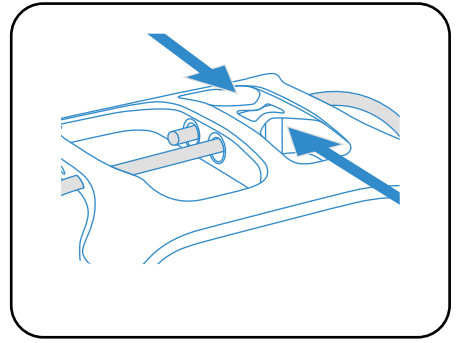
COST-EFFECTIVE

Costs less than other plating solutions

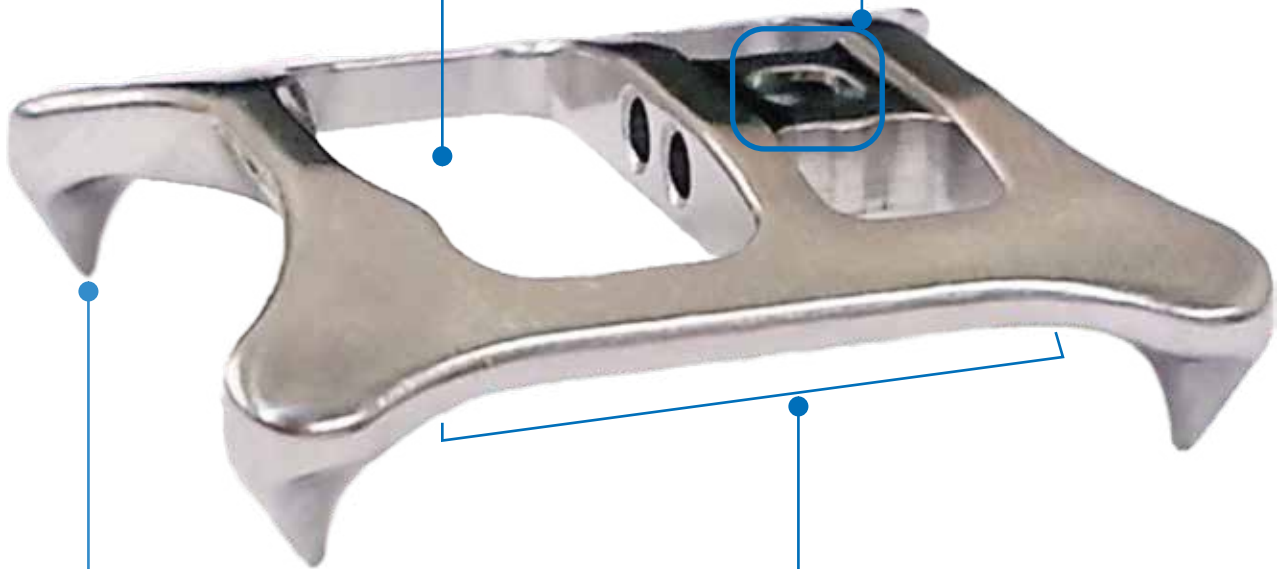
Installs in seconds



Easy installation and confident re-entry

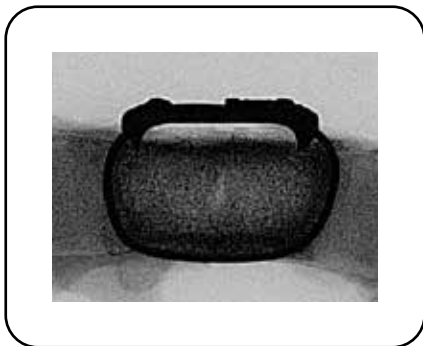


Crimp locks in compression and resists wire fatigue



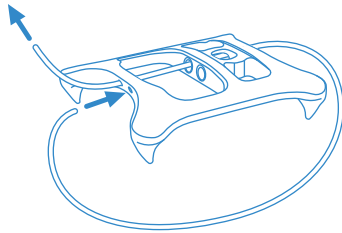
Optimized low profile for the sternum

Directional cleats penetrate the cortex to create stability



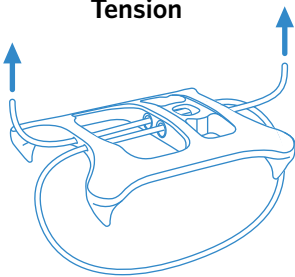
EASY TO USE

Feed



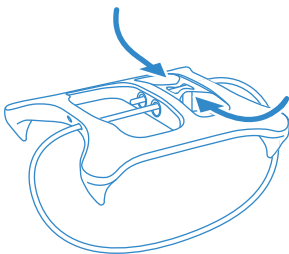
Feed standard sternotomy wire through the plate.

Tension



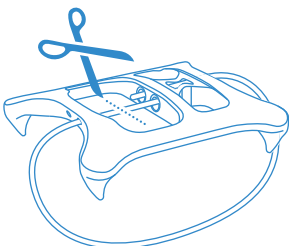
The AcuTie tensioner provides compression at the osteotomy and imbeds the cleats into the sternum for stability.

Crimp



The AcuTie crimper allows one-step crimping to lock in wire tension.

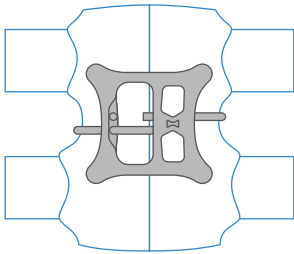
Fast Re-Entry



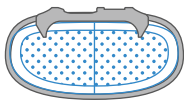
Fast re-entry is obtained if needed with the use of standard wire cutters.

COMPLETE STABILITY

AcuTie® II

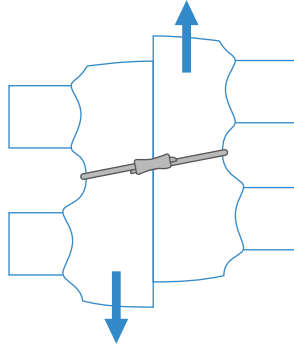


Resists forces in all directions

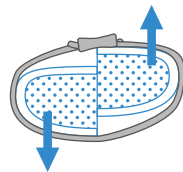


Repeatable, secure compression

Wire, Cable, Straps

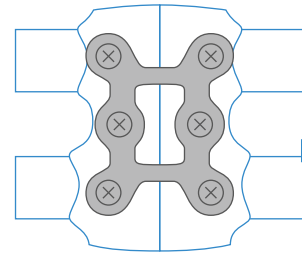


Poor resistance to anterior-posterior and rostral-caudal loading

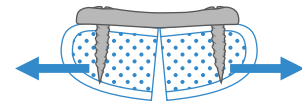


Low or variable compression

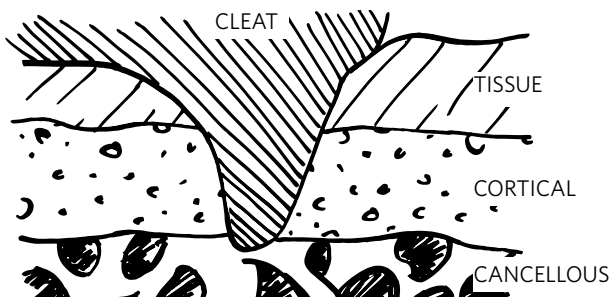
Anterior Plates



Poor resistance to lateral loading at the deep sternal cortex

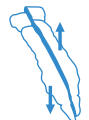
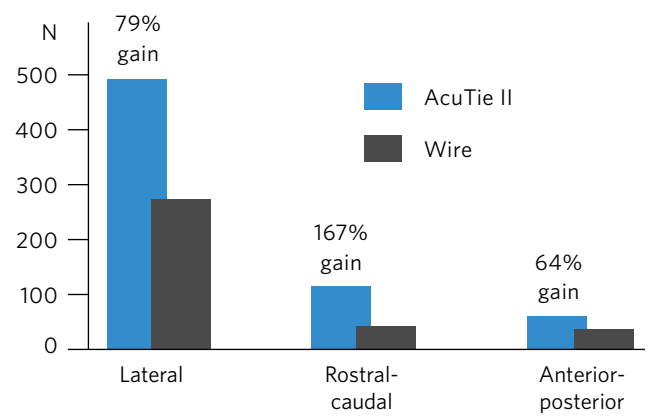


Variable or no compression

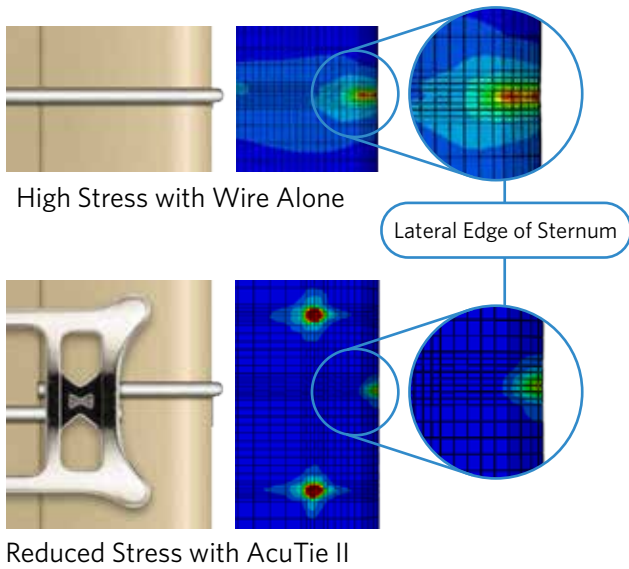


Cleats penetrate deep into the sternal cortex to provide stability in all three planes.

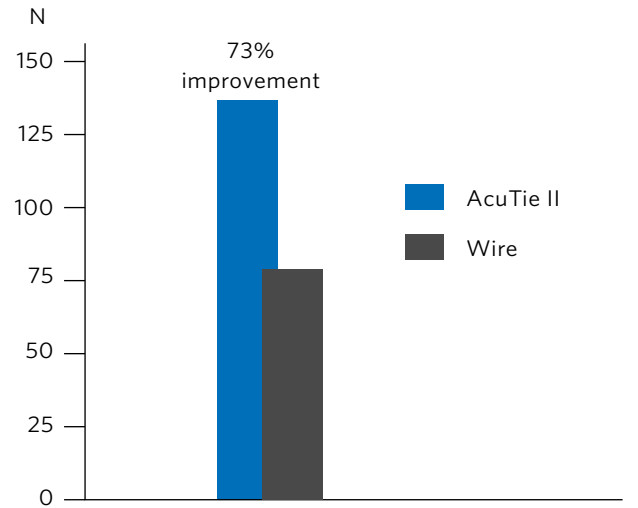
Force to Create 2mm Displacement¹



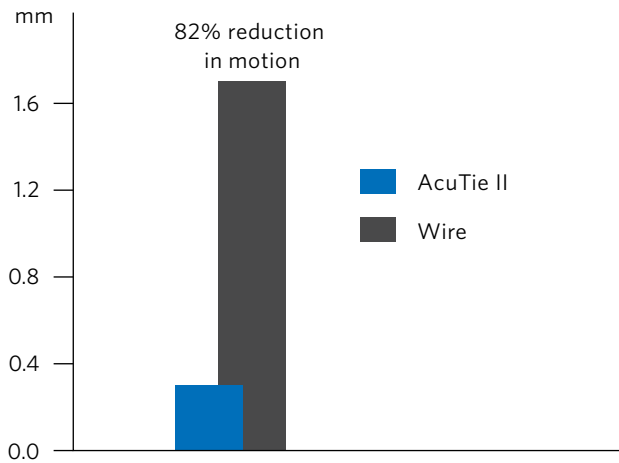
AcuTie II reduces stress on the lateral edge of the sternum leading to less tear-through.



Force to Create Tear-Through ¹

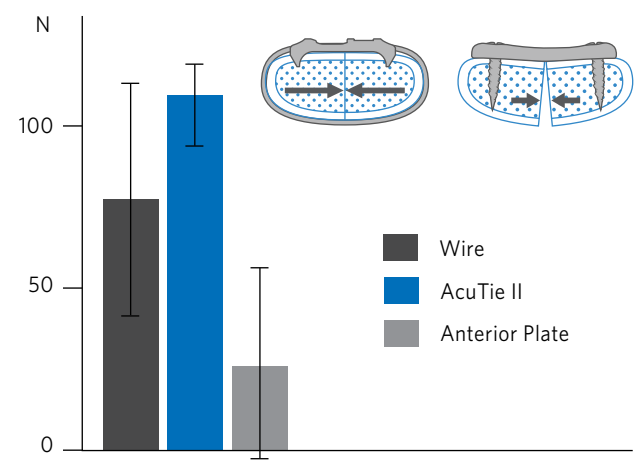


Motion at 10,000 Cycles ¹



Plate's crimp feature eliminates fatigue and breakage caused by twisting and bending wires.

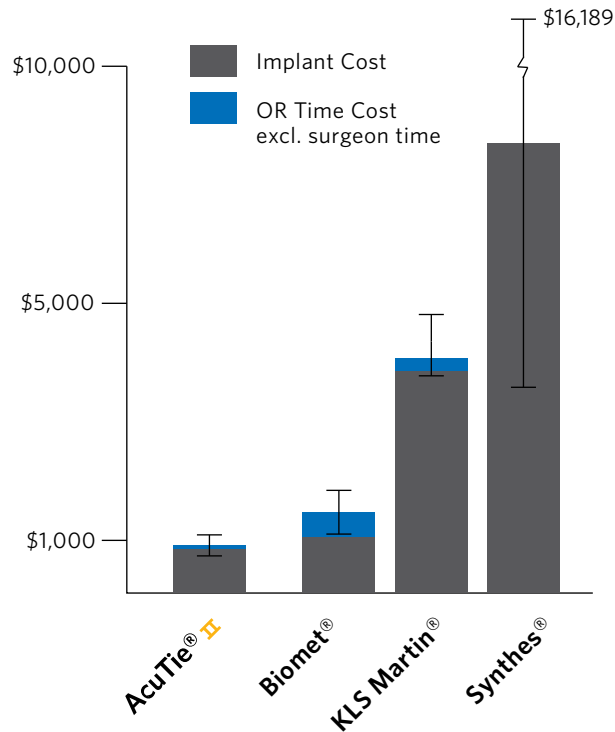
Compression Force at the Osteotomy ¹



Compared to wire and other sternal plates, AcuTie II provides an increased compression force at the osteotomy.

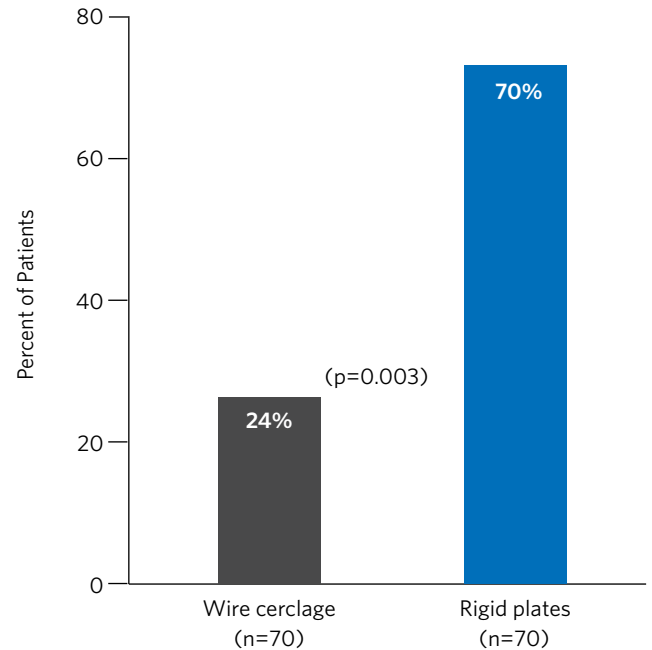
COST EFFECTIVE

Case Cost^{3, 4, 7}



AcuTie II can be installed in less than 90 seconds per plate. This may lead to **less OR time**, resulting in reduced hospital costs.

Sternal Union at 6 Months^{2, 5, 6, 7}



Increased sternal stability with rigid plates improves healing over conventional twisted wire fixation.

- 1 Data on file at Acute Innovations®.
- 2 Hirose H, Yamane K, Youdelman BA, Bogar L, Diehl JT. Rigid sternal fixation improves postoperative recovery. *Open Cardiovasc Med J.* 2011;5:148-152.
- 3 Huh J, Bakaeen F, Chu D, Wall MJ. Transverse sternal plating in secondary sternal reconstruction. *J Thorac Cardiovasc Surg.* 2008;136:1476-1480.
- 4 Levin LS, Miller AS, Gajjar AH, Bremer KD, Spann J, Milano CA, et al. An innovative approach for sternal closure. *Ann Thorac Surg.* 2010;89:195-1999.
- 5 Raman J, Lehmann S, Zehr K, De Guzman BJ, Aklog L, Garrett HE, et al. Sternal closure with rigid plate fixation versus wire closure: a randomized controlled multicenter trial. *Ann Thorac Surg.* 2012;94:1854-1861.
- 6 Sargent L, Seyfer A, Hollinger J, Hinson R, Graeber G. The healing sternum: a comparison of osseous healing with wire versus rigid fixation. *Ann Thorac Surg.* 1991;52:490-494.
- 7 Song DH, Lohman RF, Renucci JD, Jeevanandam V, Raman J. Primary sternal plating in high-risk patients prevents mediastinitis. *Eur J Cardiothorac Surg.* 2004;26:367-372.



Back to health. Back to work. Back to **life.**



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