SHOULDER INNOVATIONS

Investor Presentation

November 2026



Forward Looking Statement

Certain statements in this presentation and the accompanying oral commentary are forward-looking statements and relate to or are based on estimates regarding market and industry data that Shoulder Innovations, Inc. (the "Company") prepared based on management's knowledge and estimates, together with information obtained from publicly available resources, other third-party sources, the Company's customers and other contacts in the markets in which the Company operates. Management's estimates are derived in part from third party sources and data from the Company's internal research. Although the Company believes that these third-party sources are reliable, it does not guarantee the accuracy or completeness of this information, and the Company has not verified this information. In presenting market and industry data in this presentation, management has made certain assumptions that it believes to be reasonable based on the data available to the Company and other sources, as well as on management's knowledge of, and experience to date in, the industry and markets in which the Company operates. These statements relate to future events or the future performance of the Company, as well as its business strategy and plans and objectives for future operations, and are subject to a number of known and unknown risks, uncertainties and other factors that may cause the actual results, levels of activity, performance or achievements of the Company or its industry to be materially different from those expressed or implied by any forward-looking statements. In some cases, forward-looking statements can be identified by words such as "anticipate," "believe," "continue," "estimate," "expect," "intend," "may," "will," “could,” “predict” and similar expressions or terminology. Important factors that could cause actual results, developments and business decisions to differ materially from forward-looking statements are described in the sections titled “Risk Factors” in our filings with the Securities and Exchange Commission (the “SEC”), and include, but are not limited to, the following substantial known and unknown risks and uncertainties inherent in our business related to: our history of significant net losses; failure to manage the growth of our business; our inability to compete successfully against our existing or potential competitors; failure to develop, retain, or expand an effective dedicated commercial leadership team; risks associated with litigation; our dependence upon the adoption of our implant systems by hospitals, ambulatory surgery centers, surgeons and patients; our ability to enhance our implant systems, expand our indications and develop and commercialize additional products in a timely manner; risks associated with our third-party manufacturers and suppliers; demand forecasts for our implant systems; our ability to demonstrate to shoulder specialists or key opinion leaders the merits of our implant systems; federal and state healthcare laws and government regulation and oversight over our devices and operations; our ability to obtain and maintain patent and other intellectual property protection over our products; risks associated with our common stock; and the other important factors described in our most recently filed Annual Report on Form 10-K and subsequent other filings with the Securities and Exchange Commission. The Company has based these forward-looking statements largely on its current expectations, assumptions, estimates and projections. While the Company believes that these expectations, assumptions, estimates and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risk and uncertainties, many of which are beyond the Company’s control. These and other important factors may cause actual results, performance or achievements to differ materially from those expressed or implied by these forward-looking statements. The forward-looking statements in this presentation are made only as of the date hereof. Except to the extent required by law, the Company assumes no obligation and does not intend to update any of these forward-looking statements after the date of this presentation or to conform these statements to actual results or revised expectations.

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Market data and industry information used throughout this presentation are based on management's knowledge of the industry and the good faith estimates of management. Certain information contained in this presentation and statements made orally during this presentation relate to or are based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party studies, publications, surveys and other data to be reliable as of the date of this presentation, it has not independently verified, and makes no representations as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, no independent source has evaluated the reasonableness or accuracy of our internal estimates or research and no reliance should be made on any information or statements made in this presentation relating to or based on such internal estimates and research.

Transforming Shoulder Surgical Care



- Initial focus on the **~$2.8B** global annual **shoulder arthroplasty market[1]**; **U.S. market growing >10% annually[2]**
- Well-positioned as shoulder surgical care market **grows in outpatient / ASC settings**
- Purpose-built, disruptive **ecosystem to address existing limitations** within shoulder surgical care
- **Broad and increasingly differentiated product portfolio** & **innovation pipeline,** supported by **strong clinical outcomes** for patients and surgeons
- Leading **3D, AI enabling technology platform** integrating hardware and software
- **Unique commercial organization** and business intelligence technologies dedicated to the shoulder surgical care market

$50.1M
Net Revenue
(YTD 2026)

~52%
Net Revenue
Growth
(YTD 2026)

78.2%
Gross Margin
(YTD 2026)

1. Based on Management estimates
2. Expected U.S. market growth through 2029

Experienced Team Redefining Shoulder Surgical Care



Rob Ball
Chief Executive Officer

TORNIER
imascap
DePuy Synthes



Jeff Points
Chief Financial Officer

CSI
Empi
CliftonLarsonAllen



Matt Ahearn
Chief Operating Officer

Brambles
Johnson Controls
LEANLOGISTICS



Dave Blue
Chief Customer Experience Officer

TORNIER
DVO Extremity Solutions
DePuy Synthes



Jon Osborne
Chief Commercial Officer

TORNIER
Arthrex
S+N

Proven History of Successful Shoulder Innovation and Commercialization

DePuy Synthes
Global Shoulder
First multi-hundred-million dollar shoulder arthroplasty product line

TORNIER
Simpliciti
#1 market share shoulder arthroplasty system worldwide

TORNIER / stryker
Blueprint
First pre-operative planning platform for shoulder

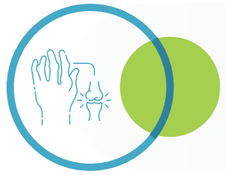
SHOULDER INNOVATIONS
InSet
ProVOYANCE

Shoulder Pain is Highly Prevalent with Quality-of-Life-Reducing Impacts

Key Drivers of Shoulder Pain



Osteoarthritis



Rheumatoid Arthritis



Rotator Cuff Tears



Shoulder Fractures

Shoulder Pain is Widespread

1 in 5 People

over 65 suffer from shoulder pain in the U.S.

8+ Million

annual physician visits related to shoulder conditions in the U.S.

38% of Patients[1]

with shoulder pain report inability to perform activities of daily life

Three Times[2]

as many total knee replacements annually compared to shoulder arthroplasties in the U.S.

Despite This Prevalence, There Has Been a Historical Underutilization of Surgical Treatments for Shoulder Care

1. Estimated according to a study published in the *Journal of Shoulder and Elbow Surgery*
2. Based on 790,000 total knee replacements done annually in U.S. vs. ~250,000 shoulder arthroplasty procedures (https://rheumatology.org/patients/joint-replacement-surgery)

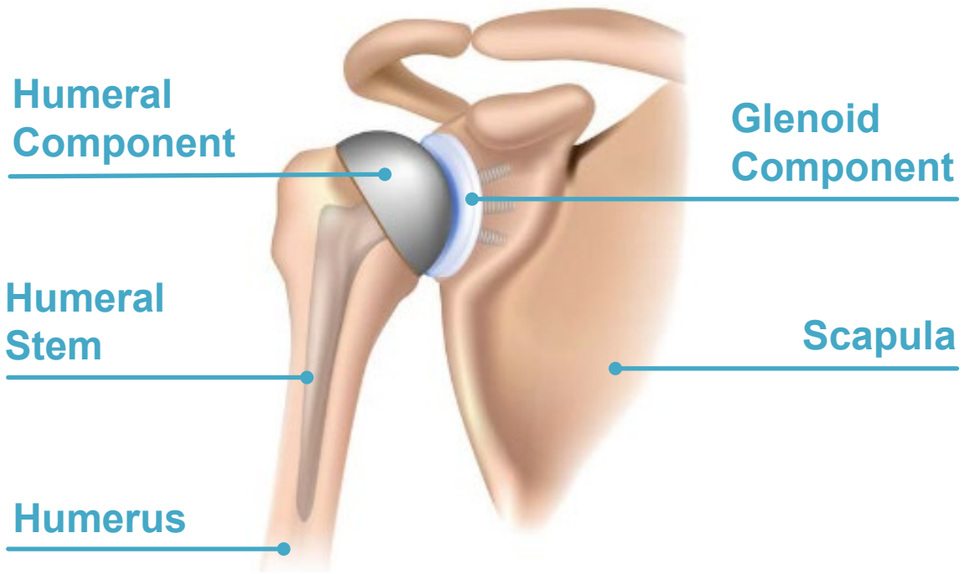
Shoulder Arthroplasty is Our Initial Focus Within Shoulder Surgical Care

Established Surgical Procedures for Reducing Joint Pain and Restoring Shoulder Motion

Osteoarthritis

Anatomic Total Shoulder Arthroplasty (aTSA)

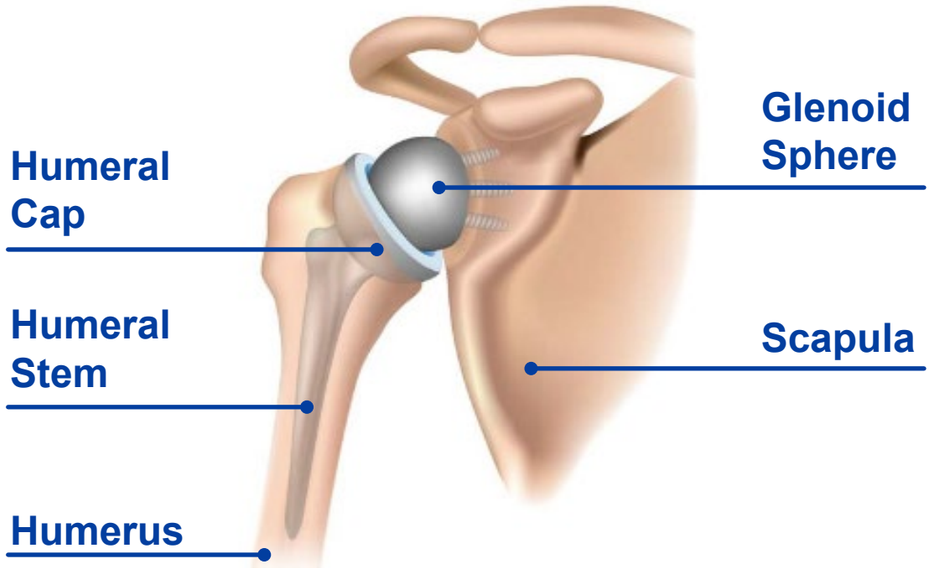
Imitates the natural joint anatomy



Osteoarthritis + Rotator Cuff Deficiency

Reverse Total Shoulder Arthroplasty (rTSA)

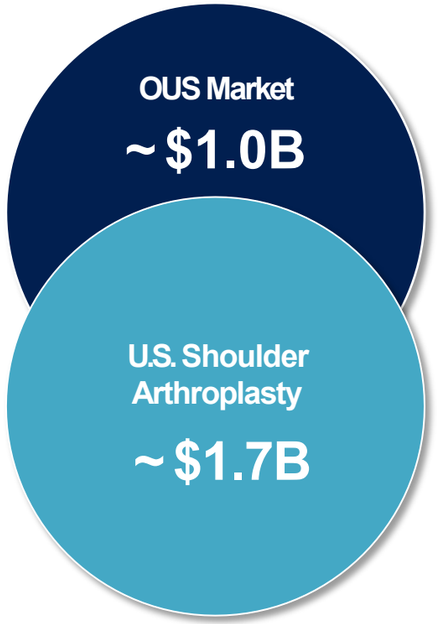
Inverts the shoulder anatomy and joint configuration



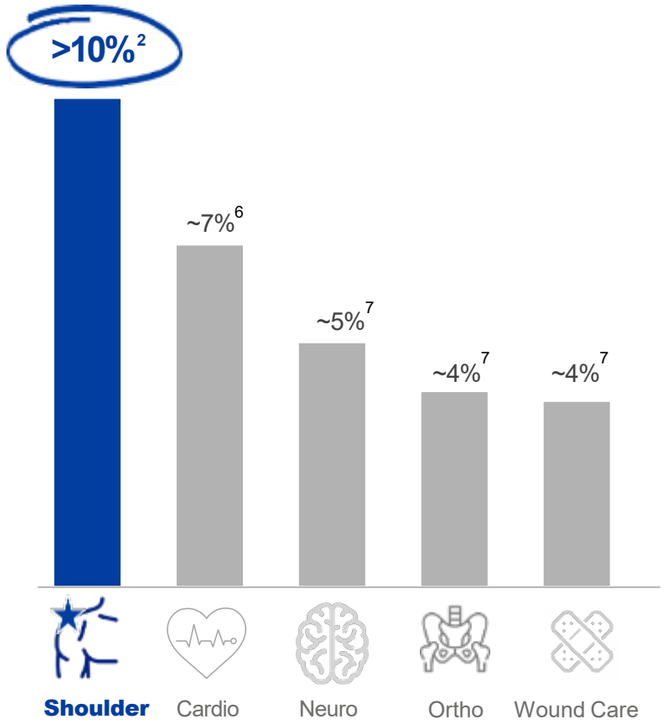
Shoulder Arthroplasty is One of the Fastest Growing MedTech Segments

Large & Growing TAM

~$2.8B
Global Annual Market[1]

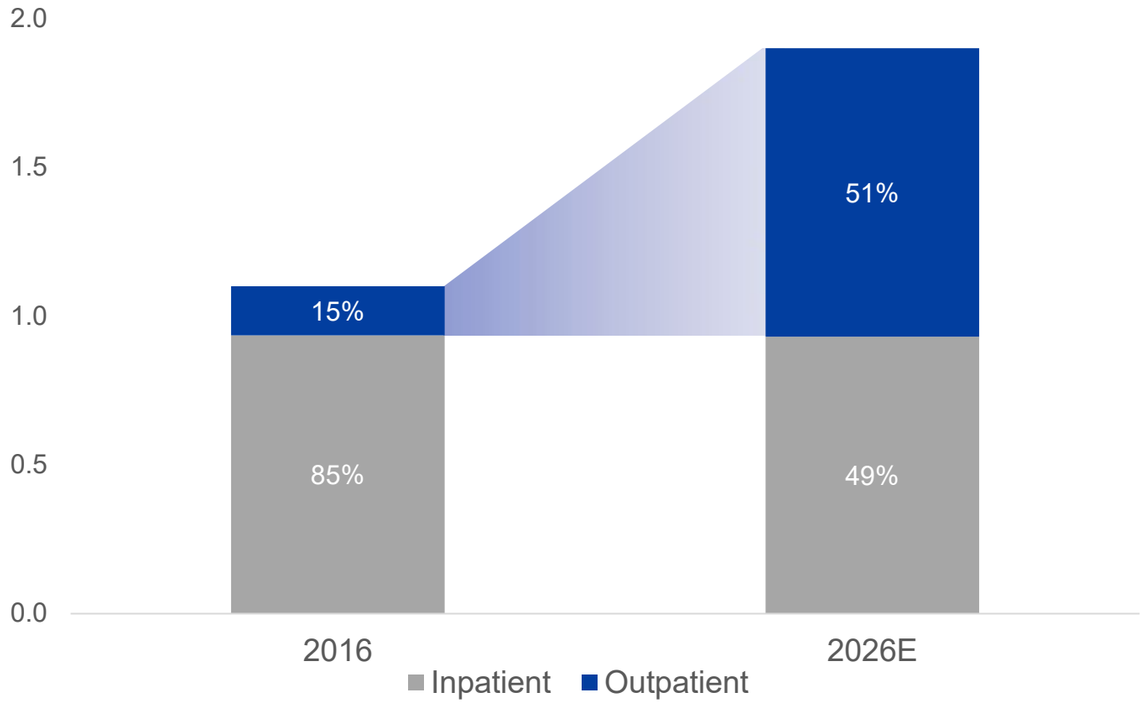


Forward Market Growth Rate (%)



ASC Will Capture Future Growth

Total Joint Arthroplasty Example[3]
(MM)



>10%
Historical U.S. Procedure Growth Between 2019-2024

~250,000
Procedures in the U.S.[4]

1,800
High-Volume Surgeons[5]

1. Based on management estimates
2. Expected U.S. market growth through 2029
3. https://pmc.ncbi.nlm.nih.gov/articles/PMC5685972/
4. Number of shoulder arthroplasty procedures expected in the U.S. in 2025 based on management estimates
5. Defined as U.S. surgeons performing the majority of shoulder arthroplasty procedures
6. Expected global market growth through 2029
7. Expected global market growth through 2030

Significant Limitations of Current Shoulder Arthroplasty Products Provide a *Compelling Opportunity*

Low Rates of Implant Survivorship
40% of Implants Subject to Revision Surgery[1]

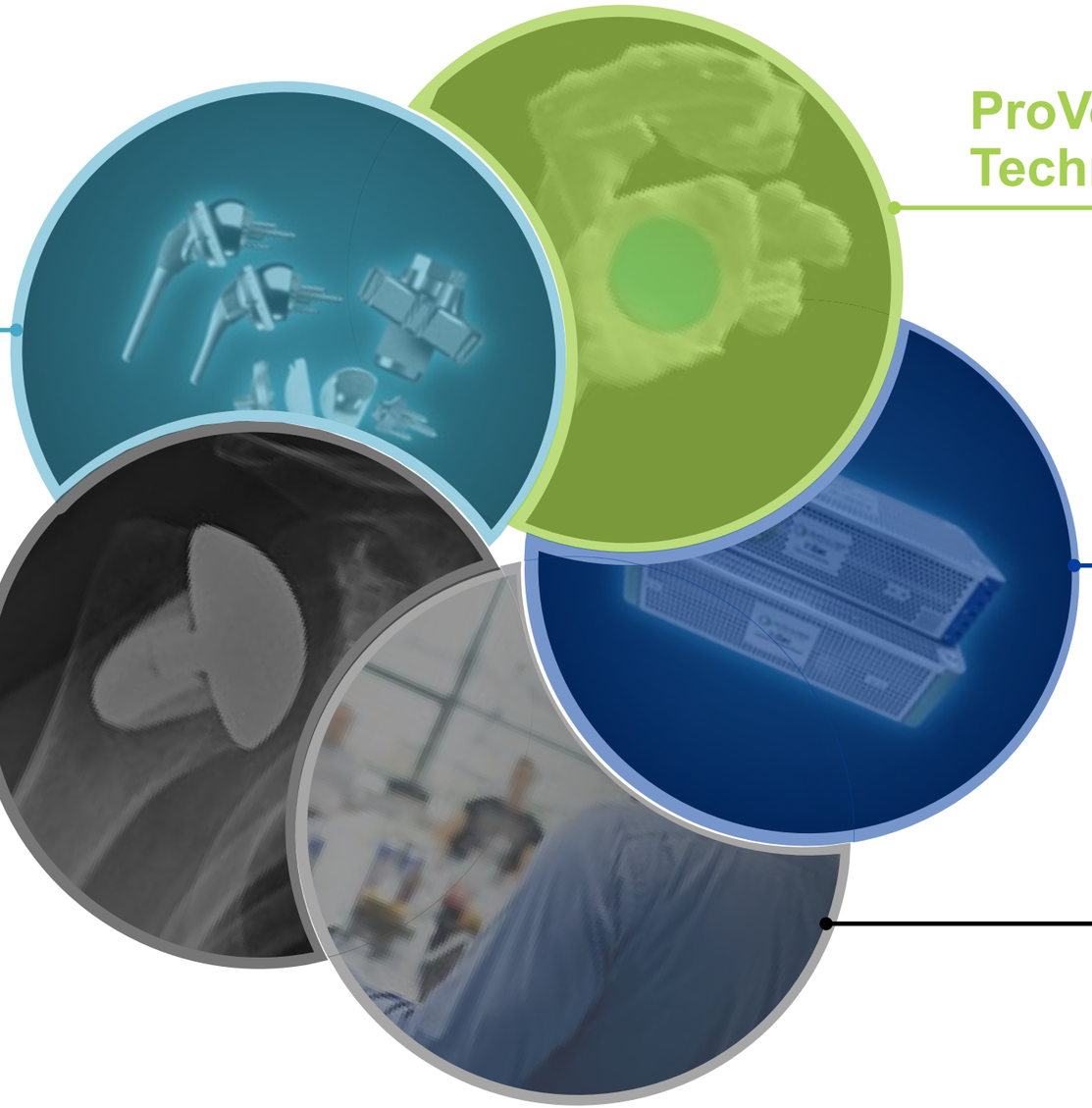
Frequent Post-Operative Complications
15% of Subscapularis Tendons Fail Following aTSA[2]

Imprecise Implant Positioning
As Little as 5 Degrees Off Angle Can Lead to Inferior Outcomes

Burdensome Surgical Workflow
Up to 9 Surgery Trays to Complete a Single Procedure

1. Revision surgery at 10-year follow-up
2. Based on a study published in the *Journal of Shoulder and Elbow Surgery* in which the tendon connecting the subscapularis muscle to the humeral bone is damaged

We Have Developed a Highly Differentiated Ecosystem to Improve Core Components of Shoulder Surgical Care



Advanced Implant Systems

ProVoyance Enabling Technology Platform

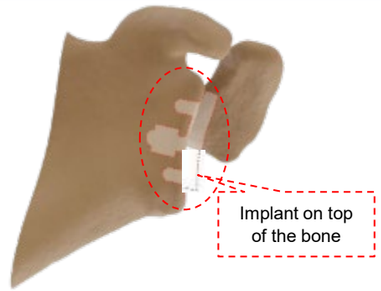
Efficient Instrument System

Surgeon-to-Surgeon Collaboration

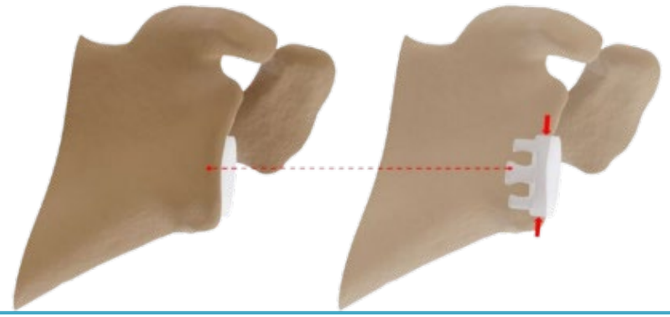
Specialized Support

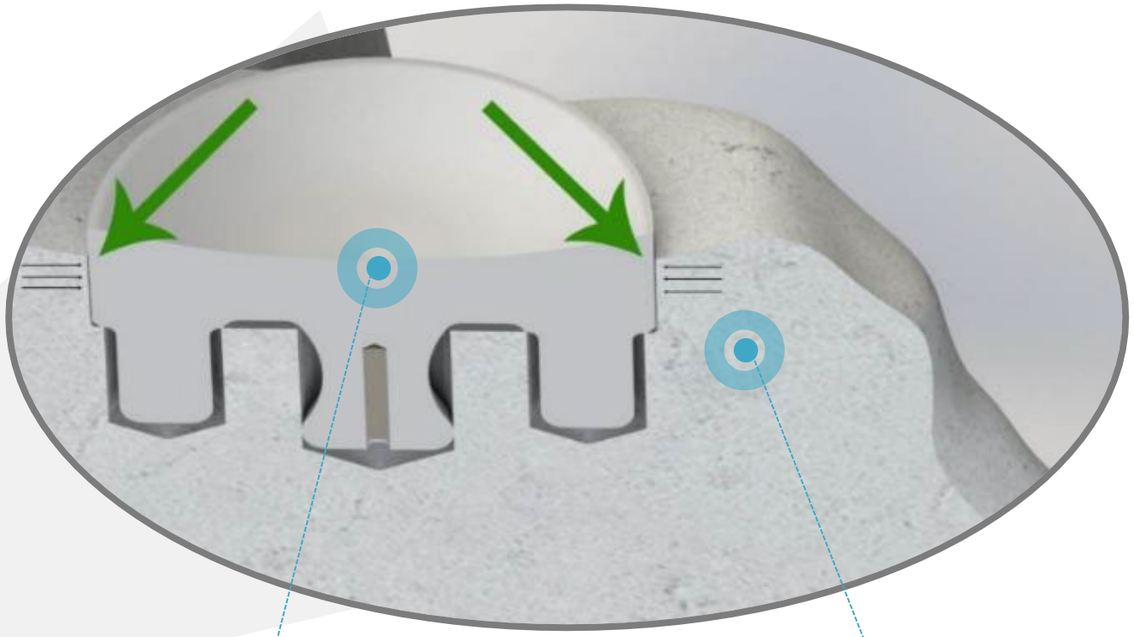
The InSet Glenoid is the Foundation of Our Implant Systems and Sets a New Standard for Fixation and Stability

Traditional Implant, Sitting on Top of Bony Surface



InSet Glenoid, Sitting Within a Rim of Bone





Complex articular **surface further reduces rocking horse motion**

Peripheral bone ledge is **buttress against rocking horse motion**

Enables Improved Fixation Mechanics, More Reliable Implant Placement, Smaller & Simpler Surgical Exposure

Data Demonstrates Significant Clinical Benefits and Improved Patient Outcomes of InSet Glenoid

Pre-Operation

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In constant pain and unable to complete daily activities

Pain-free and enjoying better quality of life



+ 72

Point Score Improvement[3, 4]

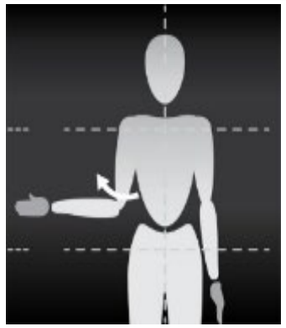


23	**95**
Pre-Op ASES[1] Score[3]	Post-Op ASES[1] Score[3, 4]

SHOULDER INNOVATIONS

Key Clinical Factors

Rotation



Forward Flexion



Pain



Durability



InSet's Differentiation

- **87% Reduction[2]** *In "Rocking Horse" Motion*
- **ZERO[5]** *Surgical Complications*
- **ZERO[5]** *Loose Implants*
- **ZERO[5]** *Revision Surgeries*
- **FULL RANGE OF MOTION[5]** *Ability to Raise Arm & Reach Back*

InSet's Differentiation Demonstrated by 100% Implant Survivorship[5] and 87% Reduction in "Rocking Horse" Motion[2]

1. ASES: American Shoulder and Elbow Surgeon Score (0-100 scale, with 100 representing a patient's normal function) at a mean follow-up of 8.7 years
2. Shoulder Elbow Surg. (2012) 21, 759-803, Finite Element Analysis and Physiologic Testing of a Novel, Inset Glenoid Fixation Technique
3. J Shoulder Elbow Surg. (2019) 1-9, Long-Term Follow-up of Total Shoulder Replacement Surgery With Inset Glenoid Implants For Arthritis with Deficient Bone
4. From a retrospective long-term follow-up analysis of patients who underwent aTSA procedures with our InSet Glenoid.
5. Results observed at a mean follow-up time of 8.7 years

InSet Glenoid Technology Leveraged Across a Full Range of Solutions for Both aTSA and rTSA Procedures

InSet aTSA System



InSet rTSA System



Common Post-Operative aTSA Complications Require Surgical Conversion to rTSA

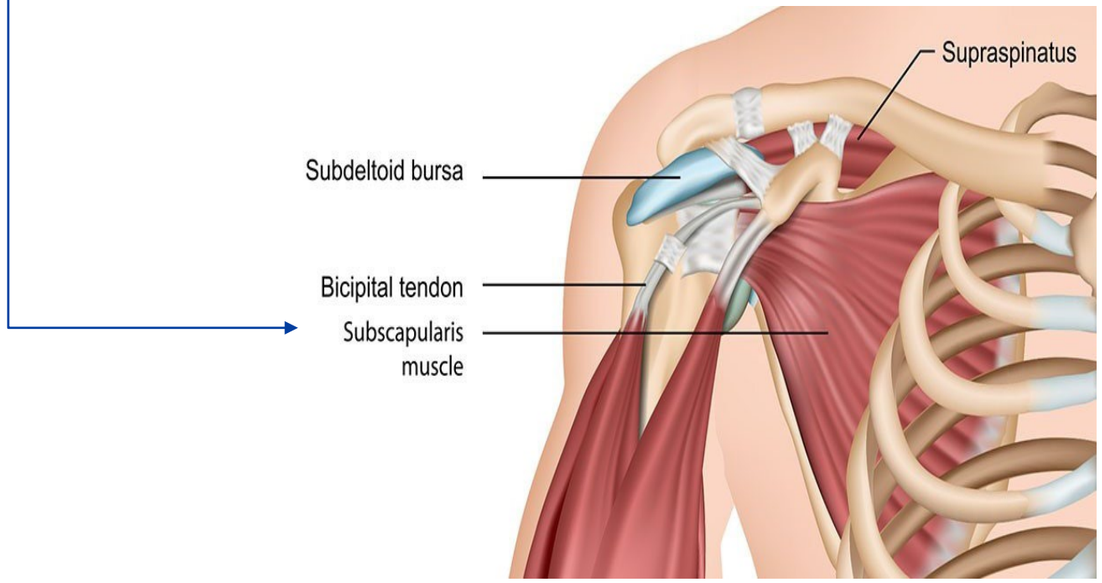
However, Traditional Implants are Not Designed for Replacement, Revision, or rTSA-Conversion Procedures

Traditional Implants….

- ✕ Place the implant stem deep into the humerus
- ✕ Require a high degree of initial bone removal
- ✕ Difficult to replace
- ✕ Not easily convertible from aTSA to rTSA

Post-Operative Complications Can Include…

Overstuffing, shoulder dislocation, humeral fractures, and **subscapularis tendon failure**

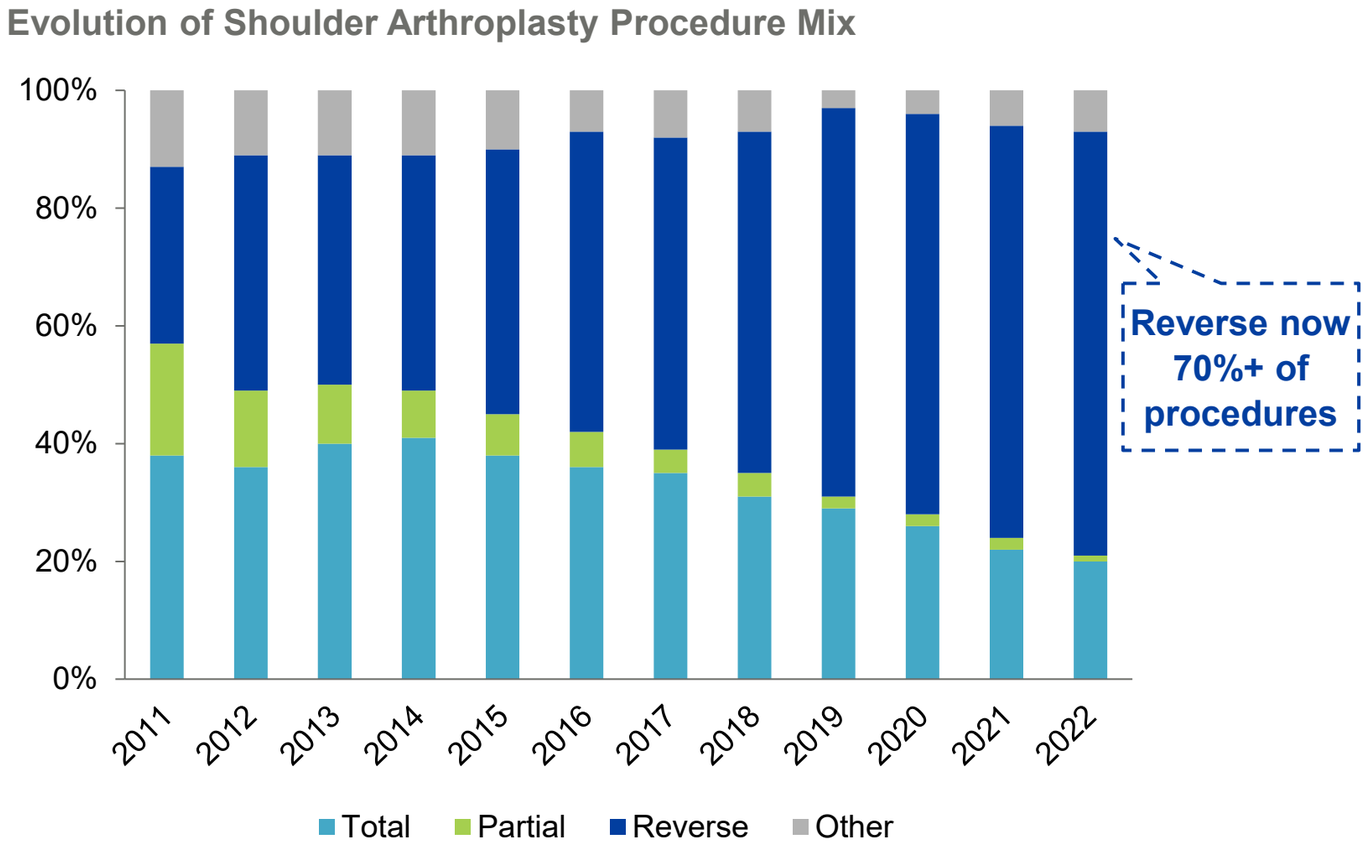


~15% of Subscapularis Tendons Fail

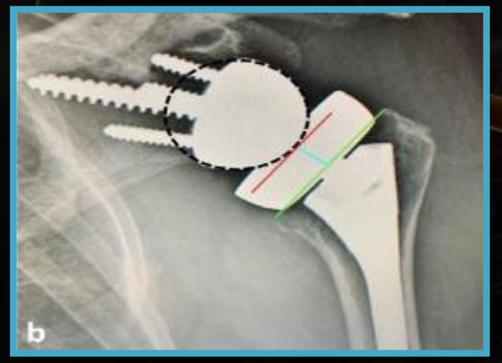
Following an aTSA Procedure[1, 2]

1. Based on a study published in the *Journal of Shoulder and Elbow Surgery* in which the tendon connecting the subscapularis muscle to the humeral bone is damaged
2. Due to inadequate healing of the tendon post-aTSA procedure

Frequency of Post-Operative aTSA Complications are Driving Significantly Higher rTSA Volumes



Gradual Market Transition Towards Inlay Reverse Arthroplasty



Onlay Arthroplasty



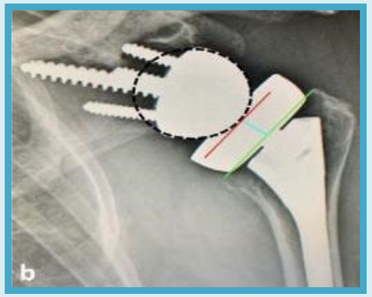
Inlay Arthroplasty

Image taken from: Badman et al, JSES, July 2021
Source: Curvo Research Network, 2023

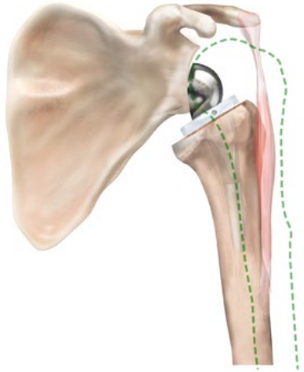
InSet Reverse System Provides Biomechanical Advantages

Engineered to Provide Bone Sparing Implant Options to Achieve Desirable Range of Motion Biomechanics

Traditional Reverse



Medialized Glenoid-Medialized Humerus

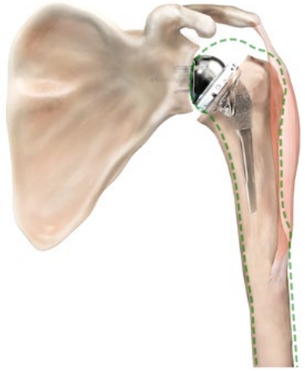


41%
of rTSAs Have Limited Internal Rotation after Surgery

InSet Reverse



Lateralized Glenoid-Lateralized Humerus



Improved Post-Op Internal Rotation



- **Biomechanical advantage:** a more “anatomic” reverse shoulder construct
- **Inlay design** enables ability to both raise arm **and** reach back (unlike traditional reverse system designs, which can constrain range of motion)
- Achieves **desirable impingement free range of motion**;and avoids arm lengthening and overstuffing
- **Design enables full conversion** from anatomic to reverse as needed

InSet Reverse Was Designed to Behave Like an Anatomic Replacement, Maximizing Post-Operative Motion

1. https://www.sciencedirect.com/science/article/pii/S2666639124000403

InSet Stems Are Compatible Across a Full Range of Implant Systems For Interchangeability Between aTSA and rTSA

Three InSet Stem Options

Stemless

70% of primary aTSA



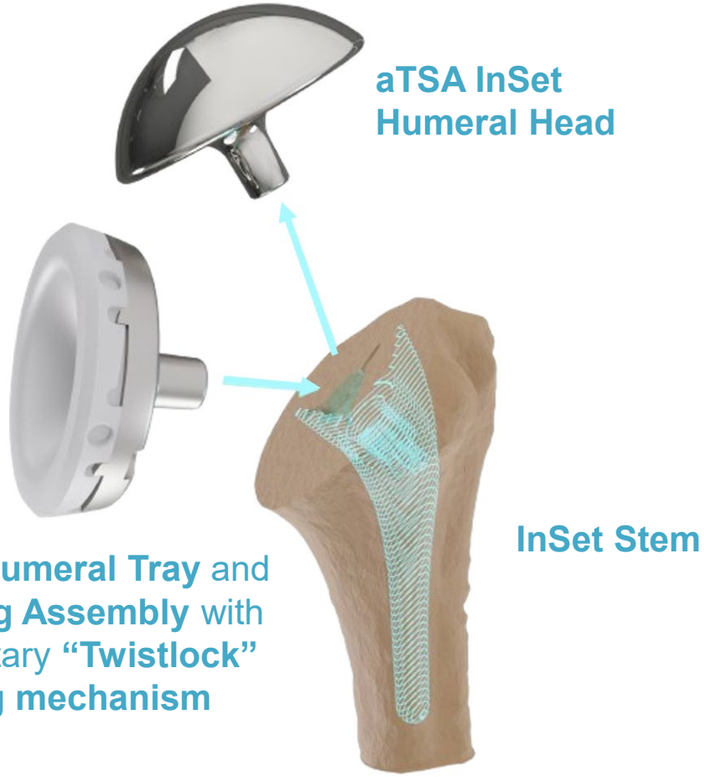
Short Stem



Long Stem



All InSet Stems are Compatible with Both aTSA & rTSA Humeral Heads…

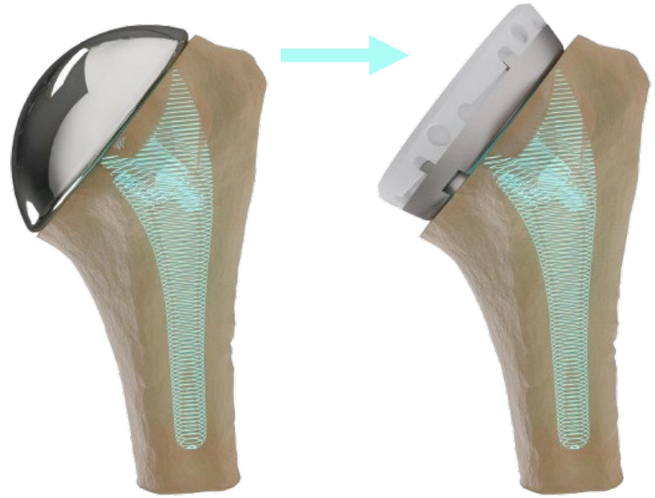


aTSA InSet Humeral Head

rTSA Humeral Tray and **Bearing Assembly** with proprietary **"Twistlock" locking mechanism**

InSet Stem

…Making Revision / Conversion Surgeries Straightforward



InSet Stem Remains in Place

- ✓ ***Consistent surgical technique***
- ✓ ***Identical instruments***
- ✓ ***Similar biomechanics***
- ✓ ***Interchangeable with aTSA / rTSA***

Our Capital Efficient Technology Suite Reduces Complexity & Cost…

Status Quo
Up to 9 surgery trays to complete a single procedure



Significant Reduction
in Surgery Tray Usage

- ✓ Full SI product portfolio and all procedures supported by **two instrument trays**
- ✓ Fewer SKUs and trays **reduce the implant footprint** per procedure
- ✓ Decreased capital outlay per procedure enables a **compelling economic value proposition**

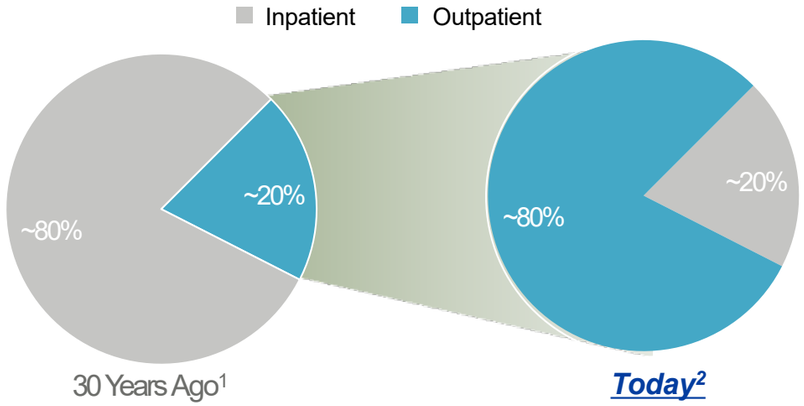


ASC Portion of Procedures: ~10% in Dec 2023 to >30% in Dec 2025[1]

1. During the month ended December 2023 and the month ended Dec 31,2025

…and Supports a Broader Market Shift Towards ASC Setting

Transition to the Outpatient Setting



Inpatient Stocking Room



ASC Shelves



ASCs as Site of Care Present Numerous Advantages

- ✓ ASC has emerged as a **cost-efficient site of care delivery for shoulder arthroplasty**
- ✓ **Positive ASC-based clinical outcomes** relative to hospital-based outcomes in shoulder surgery
- ✓ Enables **streamlined workflows, scheduling flexibility, and operational autonomy**
- ✓ Expectation for **future shoulder arthroplasty growth to be largely within ASCs** vs. hospitals
- ✓ **Reimbursement trends** favor the ASC setting – CMS proposed 2027 payments **up 13.6% at ASC**

1. https://www.sciencedirect.com/science/article/pii/S0002961025000108
2. https://amsurg.com/blog/2024/07/25/filling-a-healthcare-need-how-ambulatory-surgery-centers-are-poised-for-continued-growth/#:~:text=More%20than%2080%20percent%20of,Surgery%20Center%20Association%20(ASCA) and https://higherlogicdownload.s3.amazonaws.com/ASCACONNECT/fd1693e2-e4a8-43d3-816d-17ecfc7d55c1/UploadedImages/AdvancingSurgicalCare/What_is_an_ASC.pdf

ProVoyance Enabling Technology Platform:

A Core Engagement Center for Our Customers



Pre-Operative *Planning*
Micro-Robotic *Integration*
Intra-Operative *Execution*

- **Hands-on, enhanced** procedural planning performed by surgeons **at the site of care**
- **New version released in Q3 2026 with new features and security upgrades,** building the planning foundation for InSet Clutch and InSet Neo; continued development to deliver a substantial step-up in software capability tailored to each surgeon's technique and preferences
    - **Engineered for full compatibility with upcoming micro-robotics platform**
    - **Shifts more surgical decision-making to the software/pre-operative planning stage –** OR execution becomes a preconceived resolution of the pre-operating plan, reducing outcome variability

Introducing InSet Neo: A Micro-Robotic Solution for Shoulder Arthroplasty

- ✓ **Fully compatible with next-gen ProVoyance platform**, creating one integrated enabling technology suite
- ✓ **New economic model with no capital burden –** portable, case-by-case deployment that enables a robotics-as-a-service model unavailable with traditional systems
- ✓ **Requires very minimal change to existing surgical techniques – and no change to bone preparation**
- ✓ **Strengthens SI's ability to lead shift to ASCs,** where cost efficiency and ease of implementation are critical
- ✓ **Development progressing ahead of initial internal timelines; FDA submission planned for first half of 2027**
- ✓ **Robotic training program to begin Q1 2027**, utilizing a "train the trainer" approach

Developing in Partnership With:

INTERVENTIONAL SYSTEMS

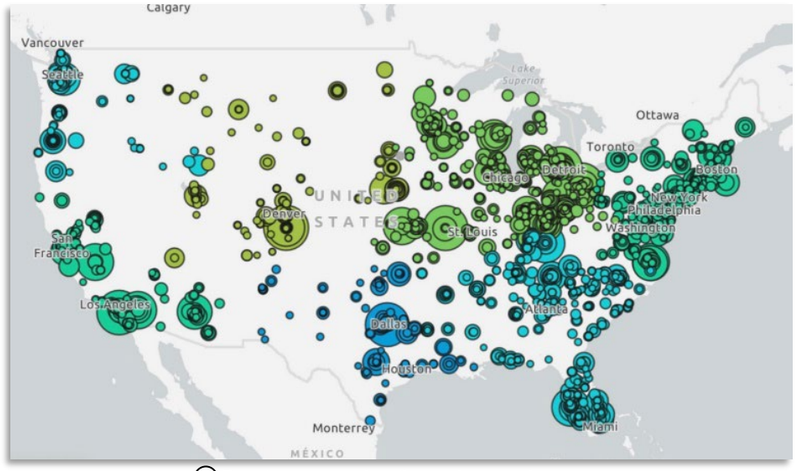


Integrated Commercial Approach Accelerates Adoption, Drives Deeper Relationships and Long-Term Retention

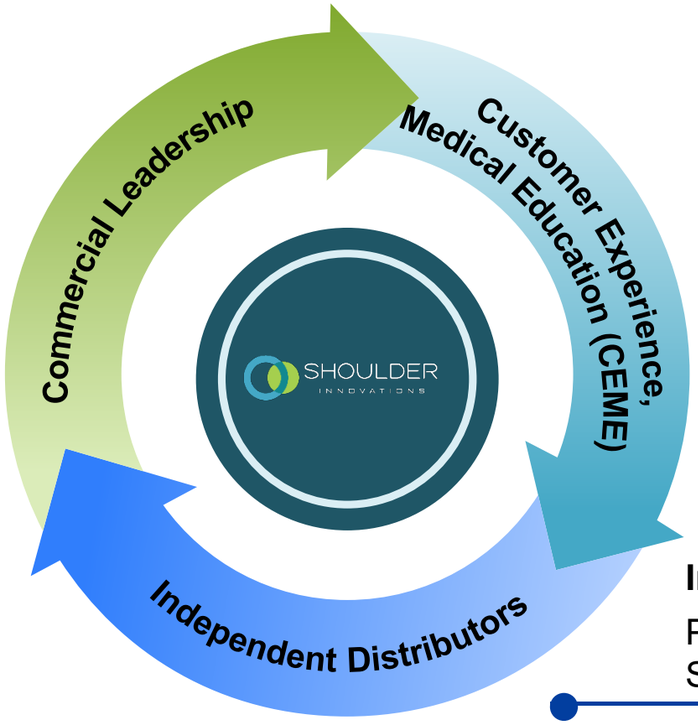
Commercial Leadership:

Distributor Management, Target Prospecting, Forecasting, Performance Management

- ✓ Leverage proprietary business intelligence tools and partner with independent distributors for account management



◯ Denotes surgeon location and case volumes



CEME:

Key Account Conversions, Utilization Management, Surgeon to Surgeon Training

- ✓ Facilitate rewarding and meaningful experiences for surgeons focused on clinical value

Independent Distributors:

Prospecting, Relationship Management, Servicing, Case Coverage

- ✓ Primarily orthopedic specialists with exclusive agreements to carry InSet as their dedicated shoulder solution

Focused Commercial Approach Targeting the ~1,800 High Volume Surgeons Performing Majority of Procedures

Consistent Innovation & Robust Pipeline of Increasingly Differentiated Technologies

2016 – 2025 Key Launches



Innovation Across New Technologies, I-Series Stems & Expansion, and New Indications

1H 2026

Full launches:

- ✓ **InSet I-135RFX humeral stem**
- ✓ **N-22 glenosphere**
- ✓ **TPS reverse baseplate**

2H 2026

Launched:

- **N-22 humeral head**
- **InSet Go next-generation anatomic glenoid (first cases October 2026)**
- **Subscapularis sparing technique (limited release)**
- **New ProVoyance software release**

2027

Limited launch:

- **InSet Clutch** guide system (Q1 2027)

FDA submissions:

- **InSet Neo:** micro-robotic system (1H 2027)
- **InSet One:** additively manufactured iteration of InSet Reverse (2027)

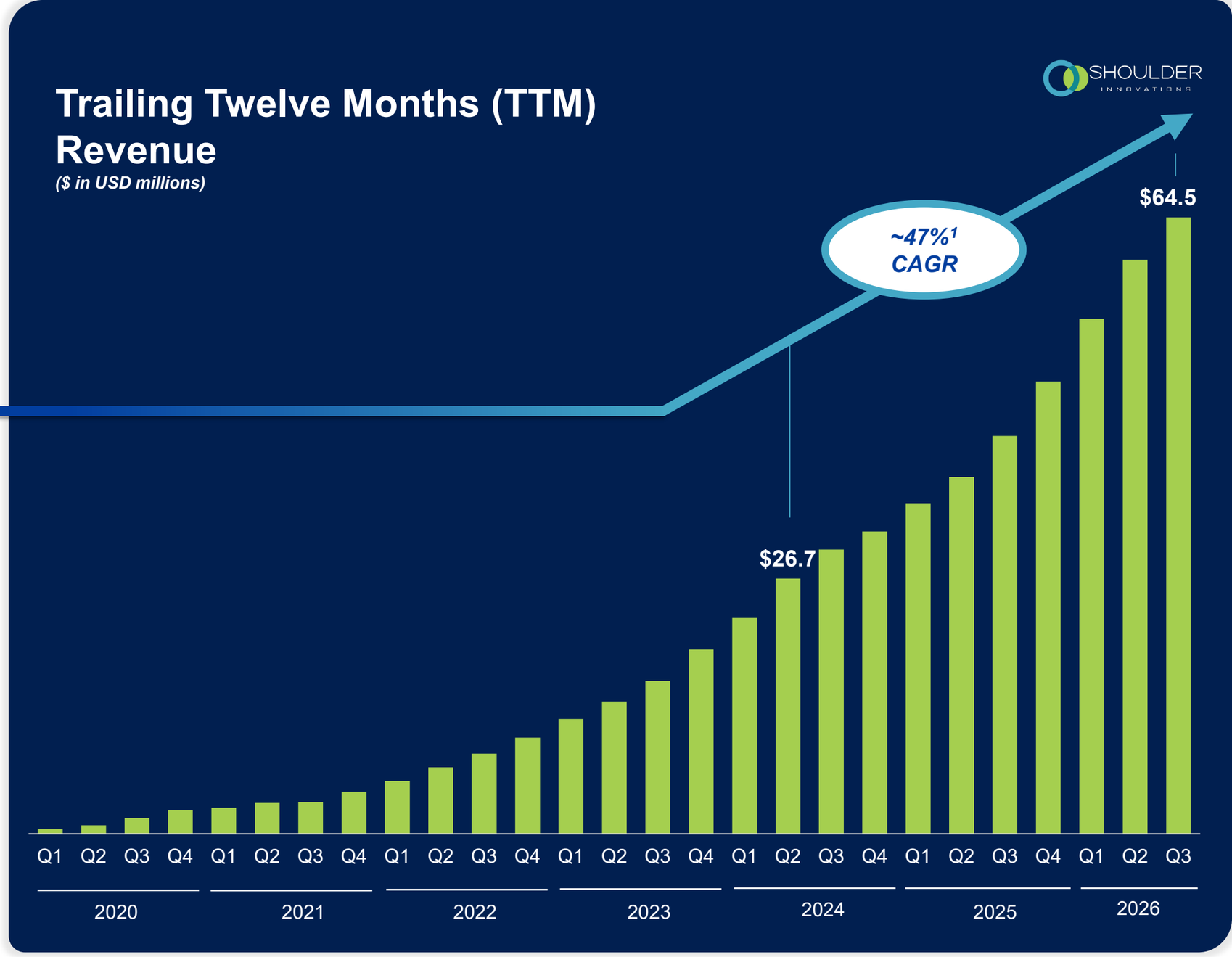
Throughout: Development work on next-generation enabling technology platform

- ✓ **Multiple programs** advancing in parallel across **enabling technology, robotics, and new product development**
- ✓ **Near-term catalysts 2026–2027** across limited releases and FDA submissions, all central to existing clinical focus within shoulder surgical care
- ✓ **New third-party collaborations** extend innovation beyond core portfolio, providing entry into **severe deformity/complex revision cases, plus soft tissue procedures**

History of Consistent Above-Market Revenue Growth

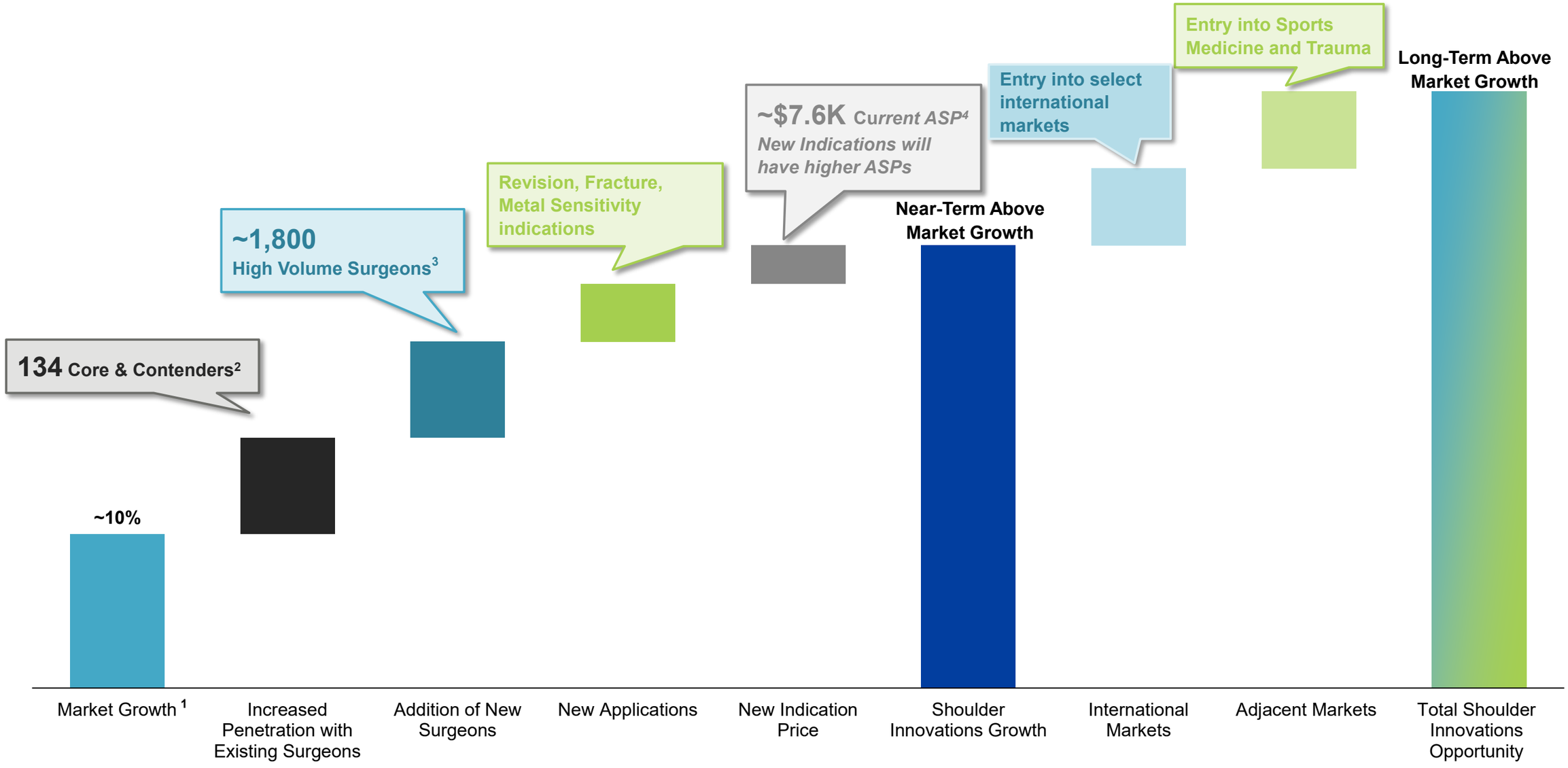
Q3 2026 Highlights:

- Revenue of $16.2M, **38%** Y/Y
- 2,126 implant systems sold, **~34%** Y/Y
- **New surgeon additions** ahead of expectations
- Gross margin of 78.5%**, +230bps** Y/Y
- **$92.3M** in cash, cash equivalents, and marketable securities



1. Compounded annual growth rate from Q3'24 to Q3'26

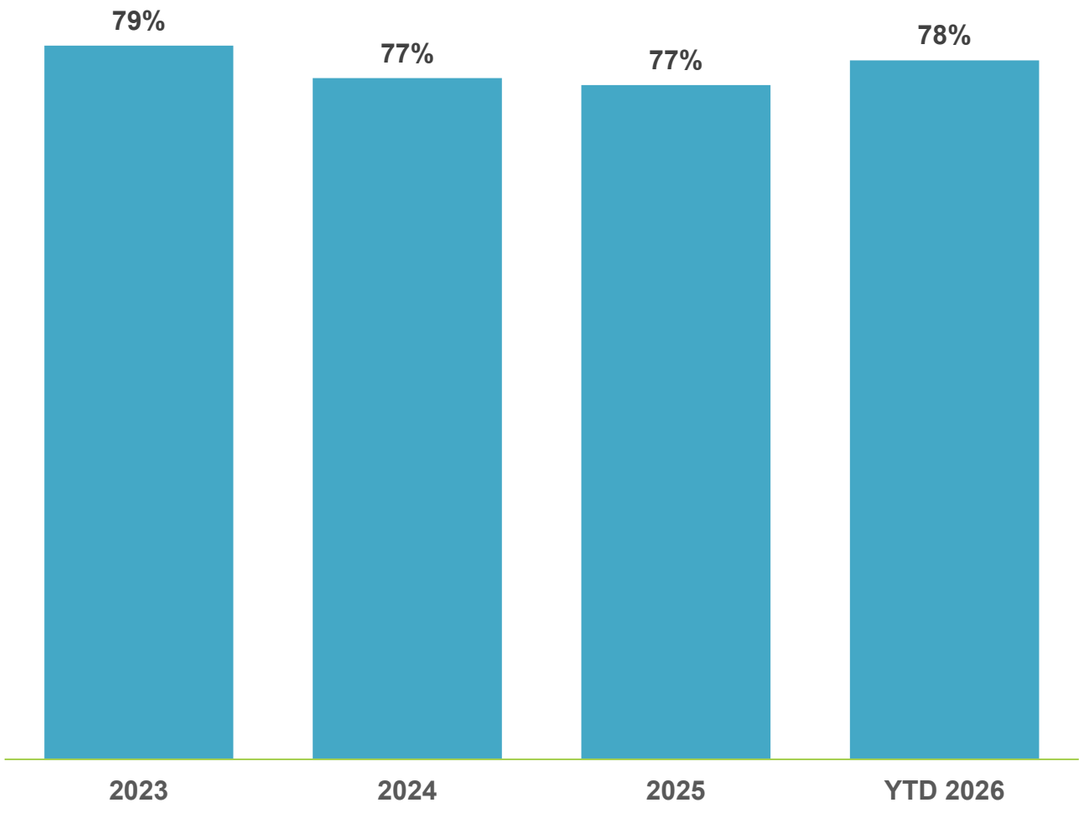
Multiple Drivers to Sustain Above-Market Growth



1. The number of shoulder arthroplasty procedures in the United States grew at approximately 10% per year from 2019 to 2024
2. As of December 31, 2025
3. Based on management estimates; defined as U.S. surgeons performing the majority of shoulder arthroplasty procedures
4. As of September 30, 2026

Multiple Initiatives to Drive Profitability

Attractive Gross Margin Profile



Key Profitability Initiatives

- ASP
- Manufacturing and Supply Chain Cost-Down Initiatives
- Salesforce Productivity
- R&D and SG&A Spend Moderating as a Function of Revenue
- Modest Capex Investments
- Improving Working Capital Dynamics

Transforming Shoulder Surgical Care



- Initial focus on the **~$2.8B** global annual **shoulder arthroplasty market[1]; U.S. market growing >10% annually[2]**
- Well-positioned as shoulder surgical care market **grows in outpatient / ASC settings**
- Purpose-built, disruptive **ecosystem to address existing limitations** within shoulder surgical care
- **Broad and increasingly differentiated product portfolio and innovation pipeline,** supported by **strong clinical outcomes** for patients and surgeons
- Leading **3D, AI enabling technology platform** integrating hardware and software
- **Unique commercial organization** and business intelligence technologies dedicated to the shoulder surgical care market

1. Based on Management estimates
2. Expected U.S. market growth through 2029

SHOULDER INNOVATIONS

Thank You

