

Clinical
value



Blueprint[®]

Preoperative planning software

Blueprint

3D planning and PSI

Blueprint 3D planning and PSI is a surgeon-controlled, 3D preoperative planning software with optional patient specific instrumentation. Blueprint allows surgeons to virtually plan and simulate surgery using each patient's unique 3D anatomical model prior to stepping foot in the OR.

Precise and reproducible 3D measurements^{1,2}

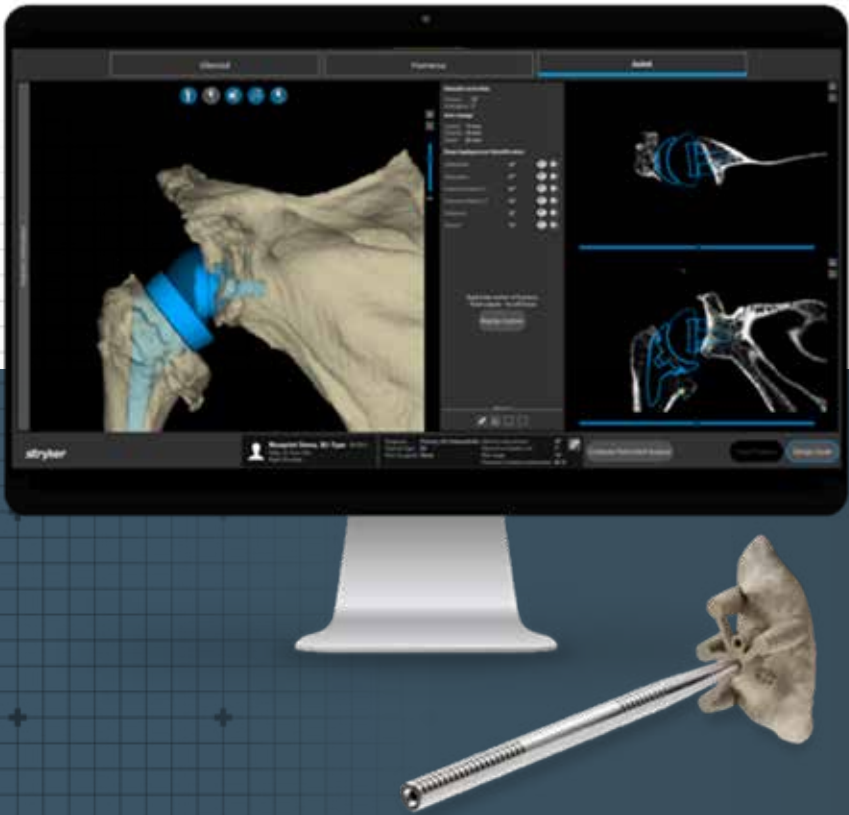
Automated 3D reconstruction and measurement calculations

Informed decision-making^{1,2}

Better understand glenoid, humeral and soft tissue deformities

Enable accurate glenoid positioning²⁻⁷

Minimizing the risk of glenoid loosening



We invite you to experience our innovative software technology.

Precise and reproducible

3D measurements

Automated 3D reconstruction and measurement calculations

Precise

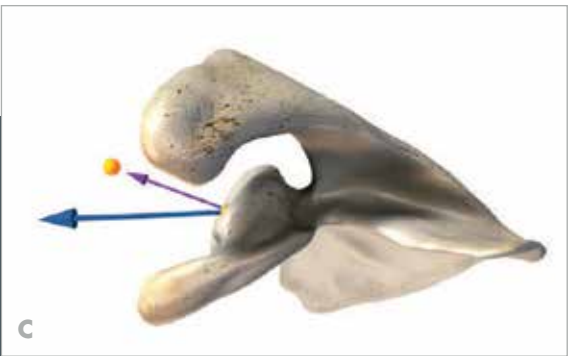
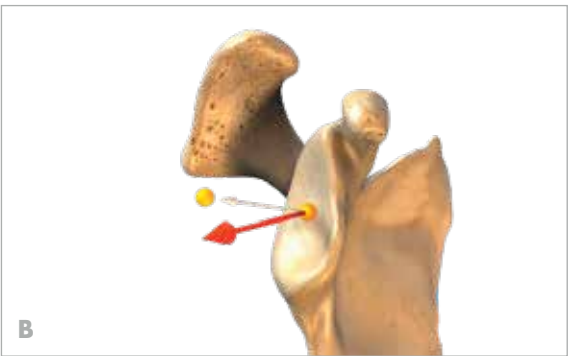
+ Studies have demonstrated that automated 3D measurements yield more accurate assessments of glenoid version and inclination than traditional 2D imaging methods.^{1,2,5,8}

- Studies show that 2D evaluation under-estimated glenoid retroversion up to 15° in A1 and B2 glenoids compared to 3D measurements.^{8,9,10}

Reproducible

+ 3D computer-assisted planning has been shown to increase intraoperative re-creation of the preoperative plan¹¹

- Fully automated anatomical measurements help eliminate interobserver and intraobserver discrepancies.¹²
- Blueprint is not dependent on third-party manual segmentation or reference point selection.
- 3D reconstruction is independent of patient gantry angle.
- Blueprint's 3D measurements and reconstructions are independent of surgeon experience.¹



+ **Figure 1.** Blueprint uses thousands of data points from the glenoid face and scapular body to create a best fit glenoid sphere (A), automatically calculate glenoid version (B), and inclination (C).

Informed decision making

Better understand glenoid, humeral and soft tissue deformities

Blueprint helps surgeons visualize patient anatomy, anticipate intraoperative challenges and evaluate the range of implant types that could be used.

3D construct visualization

+ Appreciate the patient's anatomy before the case with 3D landmarks

- 3D planning with Blueprint may result in the surgeon changing the choice of implant between anatomic and reversed.²
- Blueprint allows for easier identification of Walch glenoid types to help facilitate implant selection.³

3D virtual implantation

+ Select the projected implant size and position

- Blueprint allows surgeons to potentially save critical OR time by eliminating intraoperative sizing steps.¹³
- + **Avoidance of vault perforation and reduction in bone removal**^{14,15,16}
- When the entire scapula is used as a reference, glenoid vault perforation is less frequent and implant accuracy is improved.¹⁴



+ **Figure 3.** Blueprint enables surgeons to visualize proper implant positioning to help avoid vault perforation.

Plan refinement

Blueprint generates a glimpse into how factors such as implant selection, placement and osteoarthritic osteophytes may affect post-operative bony impingement.

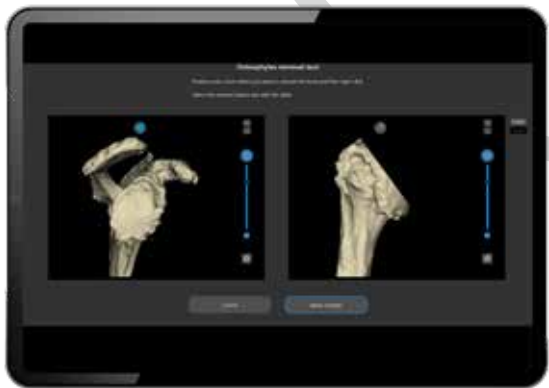
Bony impingement identification



Glenoid correction	
Version	21°
Inclination	3°
Arm change	
Lateral	6 mm
Anterior	14 mm
Distal	26 mm
Bony impingement identification	
Adduction	29°
Abduction	61°
Internal rotation 0°	44°
External rotation 0°	36°
Extension	33°
Flexion	57°

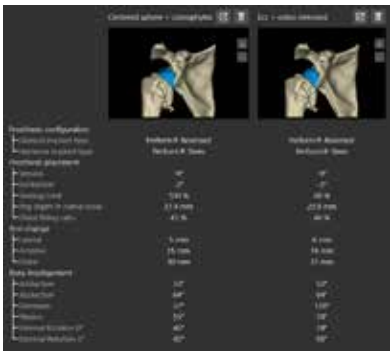
+ **Figure 4.** For all primary reverse procedures, Blueprint estimates bony impingement-free values based off surgeon implant selection and positioning.

Modify plan



+ **Figure 5.** Modify the plan using Blueprint's osteophyte removal tool and eccentric baseplates to help the surgeon achieve decreased bony impingement.

Refine plan



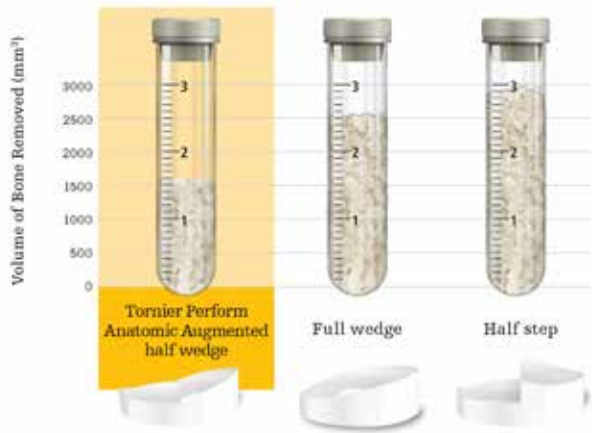
+ **Figure 6.** Blueprint allows for comparison of up to three plans side-by-side to help the surgeon identify which implant combinations may decrease bony impingement.

Enable accurate glenoid positioning

A critical component of glenoid implant longevity

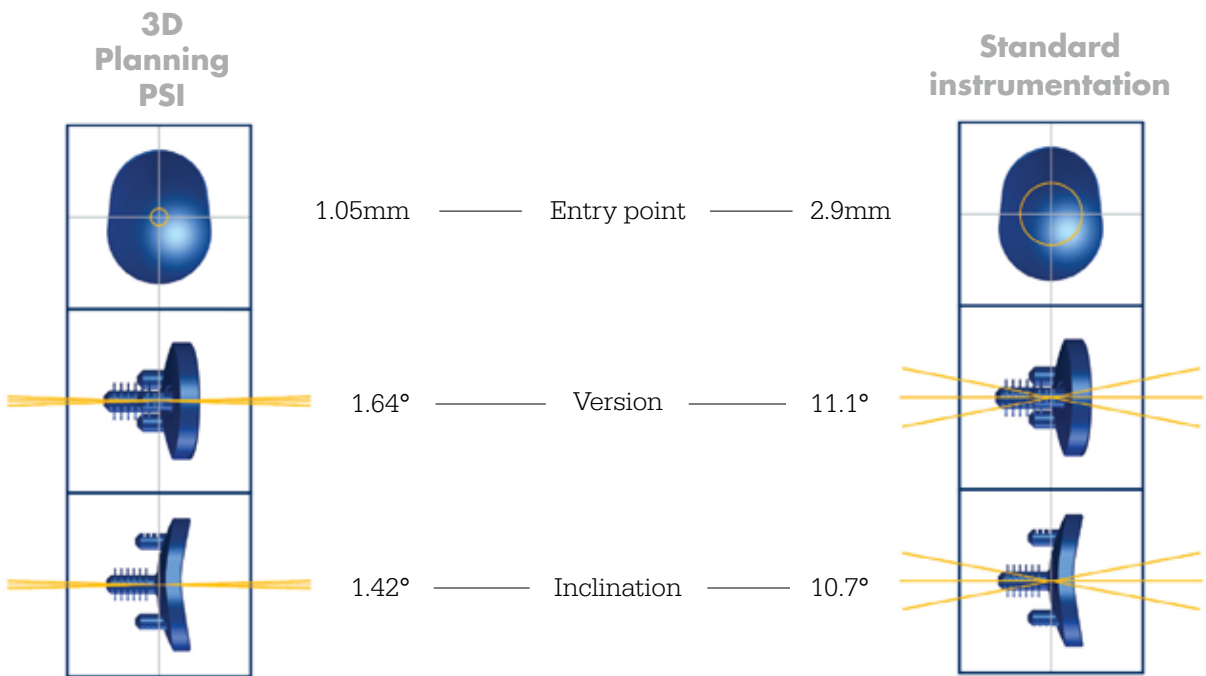
+ Blueprint 3D planning and PSI has been shown to improve the accuracy of the glenoid component positioning compared to the free-hand method.¹⁷

- 3D planning helps surgeons visualize advanced glenoid deformities and preserve critical subchondral bone.³
- Blueprint allows surgeons to quantify and position the glenoid implant to avoid glenoid vault perforation during planning.⁴



+ **Figure 7.** Stryker implants, combined with 3D preoperative planning software; help to preserve critical subchondral bone for increased survivorship.¹⁸

+ Patient-specific instrumentation precisely transfers the preoperative plan to the OR.^{4,6,19,20}



+ **Figure 8.** Patient-specific instrumentation more accurately replicates guide entry point, version and inclination than standard instrumentation.¹⁷

The Stryker support advantage

Stryker is a global medical technology company focused on developing extremity and biologic solutions. We believe that this clear focus allows us to collaborate with our surgeon partners to provide them with a comprehensive portfolio. Stryker has a variety of support options in place to help enhance our vision of making healthcare better. These support programs include:



Medical Education

Whether it is listening to one of our world-renowned faculty surgeons speak on the latest trends in shoulder arthroplasty, observing a Blueprint case demonstration, or attending a hands-on training course on the safe and effective use of Stryker's shoulder products, we have programs designed to support our customers' educational needs.



Dedicated customer support

A dedicated digital customer service team has been implemented to help onboard CT scan centers, support IT security requests, and support Blueprint software questions.



Specialized sales force

A clinically driven, specialized shoulder arthroplasty sales force has been trained to provide excellent service in the orthopaedic industry. From supporting cases to helping educate surgical/hospital staff, our sales force is here to support you in every step of the process.



Plan, orient and visualize in Blueprint

Blueprint supports the following implant systems:

Tornier Perform
Anatomic Glenoid



Tornier Perform Reversed
MonoPost Glenoid



Tornier Pyrocarbon
Humeral Head



Tornier Perform
Reversed Glenoid



Tornier HRS Max



Tornier Perform
Anatomic Augmented
Glenoid



Tornier Flex
Shoulder System



Shoulder iD
Primary Reversed Glenoid



Tornier Perform Humeral
System – Stemless



Tornier Perform Humeral
System – Fracture



Tornier Simpliciti
Shoulder System



Tornier Perform
Humeral System – Stem



Tornier HRS Humeral
Reconstruction System



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Upper Extremities

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