precisionN Knee Navigation System
precisioN Knee
Navigation System

How can precisioN Navigation simplify your procedure?

- **Automatic Implant Sizing & Positioning**: Based upon the digitized patient’s anatomy, Stryker’s unique sizing and positioning algorithm offers an enhanced visualization of the anterior match and calculates the “best fit” for implant size, flexion, and AP position.

- **Dedicated Instrumentation**: Navigated Drill Templates offer high flexibility regarding AP shift and eliminates the need for conventional AP Sizers.

- **Customization**: Customizable workflow allows the surgeon to adapt the software to their specific surgical technique.

- **Sizing Flexibility**: Informs the surgeon when a sufficient number of points have been digitized on the anterior cortex and suggests a patient specific implant size.

- **Intuitive Software Solutions**: The Reactive Workflow feature seamlessly maneuvers through kinematic and resection screens based upon the tracker’s position without the need for manual software interaction.

How can precisioN Navigation add confidence?

- **“Fit Analysis”**: Amount of uncovered bone above and below the implant’s anterior flange is represented graphically in real time prior to cut.

- **“Fit Analysis”**: Maximum gap between the implant’s anterior flange and the bony anatomy is represented graphically and numerically in real time.

- **Gap Balancing**: The optional Gap Balancing feature provides the surgeon with a preview of the flexion/extension gaps in real time before any femoral cuts are made.

- **Assurance**: Software notifies the user of potential anterior cortex notching before cut is made.

- **Implant Downsize Option**: Quickly allows the surgeon to virtually view the results of utilizing a smaller femoral implant.

- **Versatility**: Open platform software and cutting guides allow for navigation of primary femoral and tibial resections as well as kinematic analysis for surgeon’s preferred implant system.

How can precisioN Navigation help improve results?

- **Original Condyle Estimation**: For a more accurate reconstruction of the joint line in certain varus deformities, the software can estimate the patient’s pre-pathologic medial condyle.

- **Prevention**: Software helps prevent overstuffing of the joint by detecting excessive medial/lateral implant overhang.

- **Stryker Implant Database**: Complete implemented database of Triathlon, Scorpio, and Scorpio NRG implants and dedicated instrumentation available to surgeon.

Stryker’s precisioN knee sizing and positioning algorithm assists me in placing the “best fit” implant in the best place on the femur, thus optimizing joint kinematics and component wear for longevity of the entire implant construct.

- **Kenneth Krackow, M.D.**, Head, Department of Orthopaedic Surgery Kaleida Health, Professor of Orthopaedic Surgery State University of New York at Buffalo (SUNY at Buffalo), Buffalo, NY, USA
Intra-Operative Features and Offerings

Sizing

Flexibility

Informs the surgeon when a sufficient number of points have been digitized on the anterior cortex to suggest a patient specific implant size.

Stryker Smart Instrumentation

- Effortless manipulation of software through integrated handpieces helping to improve efficiency.
- Higher accuracy with Active Tracking (LED based technology).
- Steady flow of information uninterrupted by vibration, impaction or soiled instruments.
- Open platform technology for navigation of non-Stryker instruments.

Stryker Camera Technology

- Highly accurate and reliable digital camera.
- Easy to use wireless remote software control from the sterile field with the use of Stryker’s Smart instrumentation.
- Large working volume with virtually no jitter.
- Stryker engineered - Stryker manufactured.

Why use precisioN Navigation?

- **Optimization:** Optimizes implant size and position to reach enhanced anterior match without overstuffing the patella-femoral joint as well as addresses potential registration error.
- **Versatility:** Open platform system and cutting guides allow for navigation of primary cuts for surgeon’s preferred implant system.
- **Durability:** Wireless infrared tracking reduces interference due to the presence of liquid or tissue on the tracker.

Having the opportunity to be involved in the development of multiple iterations of Stryker’s knee navigation technology since 2002 has allowed me to test, experience, and enjoy the creation of software and hardware that yields optimal implant placement in both the M/L and A/P planes.

- Knute Buehler, M.D.
  Chief of Arthritis and Joint Reconstruction, The Center - Orthopedic and Neurosurgery Care and Research, Bend, Oregon, USA

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### Parts List

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The information presented in this guide is intended to demonstrate the breadth of Stryker product offerings. Products may not be available in all markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

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