What's in My Bag?

Featuring James Bradley, M.D.

Professor University of Pittsburgh, Team Physician Pittsburgh Steelers

Sheathless Arthroscopy

Q. Dr. Bradley, can you describe how long you have performed sheathless arthroscopy and its advantages in arthroscopic fluid management and joint visualization?

A. I have utilized sheathless arthroscopy primarily in the shoulder for more than three years. Transferring the fluid inflow to the side port of an 8.25 mm partially threaded or Gemini Cannula provides a constant, large lumen inflow that never loses joint distention during multiple scope-position changes during the case. Joint distention is now not dependent on the scope sheath for inflow. Therefore, I never have to deal with loss of distention or "red out" from scope-viewing portal changes during the procedure, which helps to significantly reduce surgery time, procedure inefficiency and extravasation risk.

Q. Does the 4 mm outer diameter without an inflow sheath allow you to navigate in tighter joint spaces and what indications are best performed with a smaller diameter sheathless scope?

A. A smaller scope diameter allows me to better maneuver in less accessible areas throughout the joint. It is especially helpful in smaller joints such as the elbow and ankle where intra-articular space is limited. A 4 mm scope with a high flow sheath is about 6 mm in diameter compared to a 4 mm sheathless scope. But equally salient is no matter how smooth the sheath/scope junction is in the traditional set-up, there still is an edge that can cause iatrogenic cartilage damage. I now worry less about cartilage contact damage.

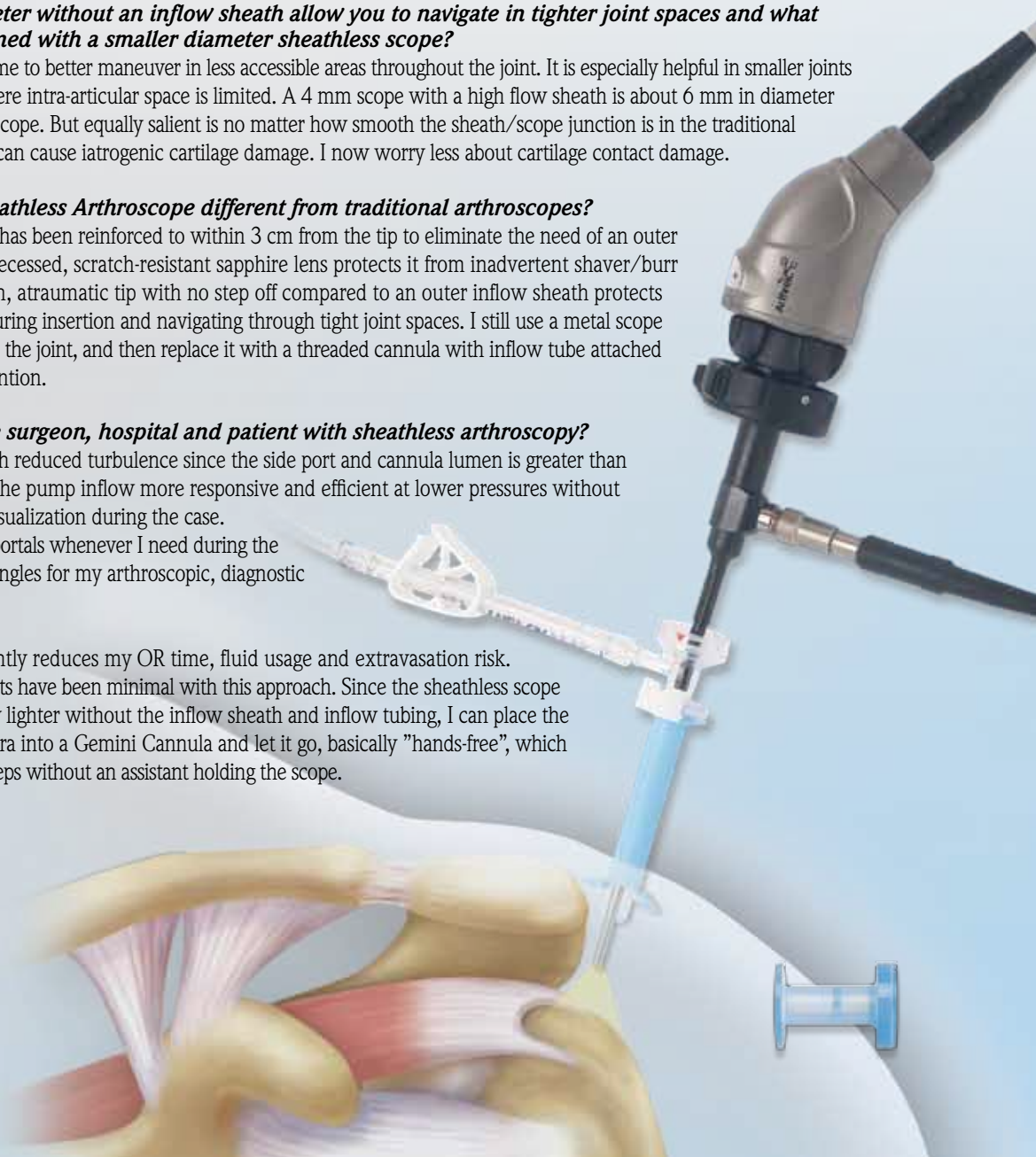
Q. What make the Arthrex Sheathless Arthroscope different from traditional arthroscopes?

A. The stronger stainless steel shaft has been reinforced to within 3 cm from the tip to eliminate the need of an outer metal sheath for strength. The recessed, scratch-resistant sapphire lens protects it from inadvertent shaver/burr instrument damage. The smooth, atraumatic tip with no step off compared to an outer inflow sheath protects hyaline cartilage from damage during insertion and navigating through tight joint spaces. I still use a metal scope sheath and obturator to first enter the joint, and then replace it with a threaded cannula with inflow tube attached to the side port to maintain distention.

Q. What are the benefits to the surgeon, hospital and patient with sheathless arthroscopy?

A. Fluid inflow is more efficient with reduced turbulence since the side port and cannula lumen is greater than a high flow sheath. This makes the pump inflow more responsive and efficient at lower pressures without risking a loss of distention and visualization during the case.
Rapidly changing scope-viewing portals whenever I need during the case gives me the best viewing angles for my arthroscopic, diagnostic and repair procedures.

Sheathless arthroscopy significantly reduces my OR time, fluid usage and extravasation risk. Our scope damage and repair costs have been minimal with this approach. Since the sheathless scope and camera are now significantly lighter without the inflow sheath and inflow tubing, I can place the sheathless arthroscope and camera into a Gemini Cannula and let it go, basically "hands-free", which permits me to perform surgical steps without an assistant holding the scope.



Sheathless Arthroscope

The Sheathless Arthroscope will revolutionize the way arthroscopic procedures are performed. By eliminating bulky scope sheaths, obturators, switching sticks, and maintaining fluid inflow through operative cannulas, viewing portal changes are quick and efficient. Fluid extravasation due to repeated portal changes is minimized by maintaining operative cannulas in all portals. The Sheathless Arthroscope is designed and constructed with additional structural support along its length to stand up to normal stresses without a sheath. The Sheathless Arthroscope will reduce surgical times by expediting portal changes and eliminating distention loss.

Unique Features of the Sheathless Scope:

- True 4 mm versus approximately 6 mm outer diameter with an outer sheath allows access to tight joint spaces and greater maneuverability within the portal cannula
- The reinforced shaft up to the distal 3 cm provides strength reinforcement, without the need of a bulky outer inflow sheath
- The smooth, round tip prevents inadvertent contact damage to hyaline cartilage surfaces
- The recessed, scratch-resistant sapphire lens tip reduces inadvertent damage from ablation and resection instruments
- Standard eyepiece fits all video camera systems
- Can be used with smaller diameter cannulas such as the 6 mm Gemini Cannula, the 7 mm Twist-in Cannula and the 6 mm PassPort Button Cannula
- Enhances pump efficiency and responsiveness to better maintain joint distention with undisrupted larger lumen instrument cannula side port inflow
- Maintains joint distention and prevents "red out" with multiple scope portal changes throughout the procedure
- Facilitates secure "hands-free" placement in the joint when used with the Gemini Cannula
- Recommended by leading U.S. sports medicine surgeons
- Ordering information
  Sheathless Arthroscope, 30˚, 134 mm
  – AR-3350-5030
  Sheathless Arthroscope, 70˚, 138 mm
  – AR-3350-5070
  Passport Button Cannula, 6 mm I.D. x 2 cm
  – AR-6592-06-20
  Gemini Cannula, 6 mm
  – AR-6572
  Twist-In Cannula, 7 mm I.D. x 7 cm
  – AR-6570

PassPort Button Cannula

Gemini Cannula

Twist-In Cannula

Arthrex®

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