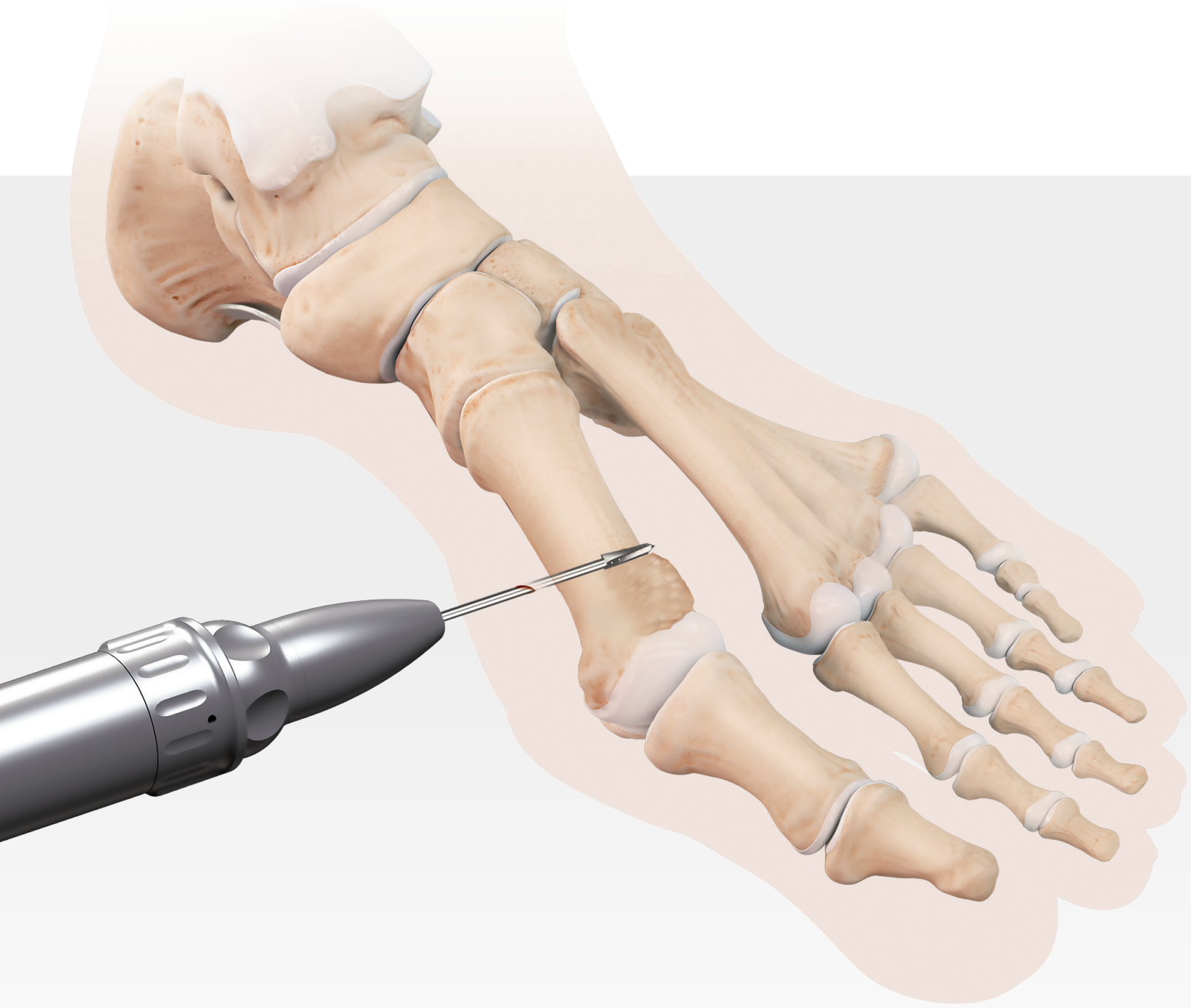
Minimally Invasive Cheilectomy

Surgical Technique



Arthrex®

Minimally Invasive Foot Surgery

The Arthrex MIS product portfolio provides surgeons with all the tools necessary to perform minimally invasive or percutaneous surgery of the foot. Arthrex provides a dedicated, high-quality power unit with performance parameters ideal for MIS surgery. The portfolio also includes a range of disposable burrs designed specifically for the osteotomies performed during MIS procedures. In addition, surgeons have access to a compact reusable instrument set that includes a reusable blade handle along with rasps and elevators. Finally, when bony fixation is required, Arthrex supplies a comprehensive line of cannulated, headless, fully threaded Compression FT screws that enable stable fixation of any osteotomy.

MIS Console
This console allows for joint preparation and percutaneous osteotomies of the foot and ankle with low-speed, high-torque burrs with continuous irrigation. The system is specifically designed for foot and ankle procedures and allows users to adjust motor parameters like speed, torque, flow rate, and transmission ratio.

Percutaneous Burrs
A 2.9 or 4.3 mm wedge burr should be used for performing a cheilectomy. The conical shape of these burrs allows for cutting as well as contouring the metatarsal bone. A Shannon burr should be avoided to minimize the risk of over-resection, resulting in an unstable MTP joint.

MIS Elevators
These slim, contoured, and low-profile instruments are designed to work through small incisions to create a safe working portal for burring and cutting. They help maintain periosteal integrity, protect neurovascular structures, reduce the need for aggressive manual retraction, and lower wound complications.

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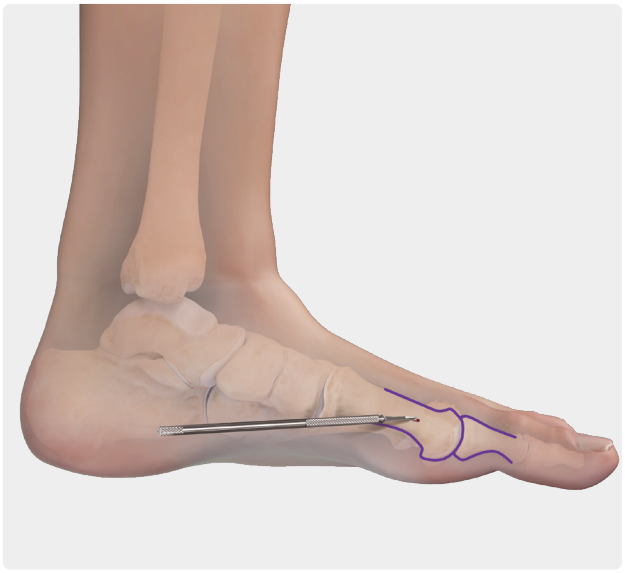
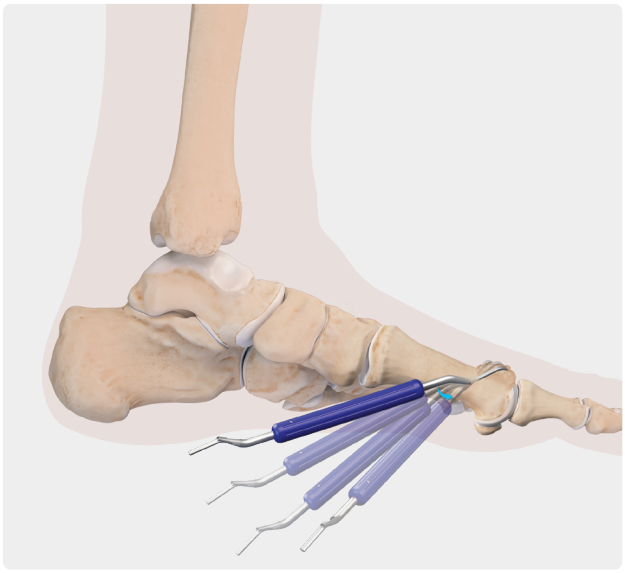
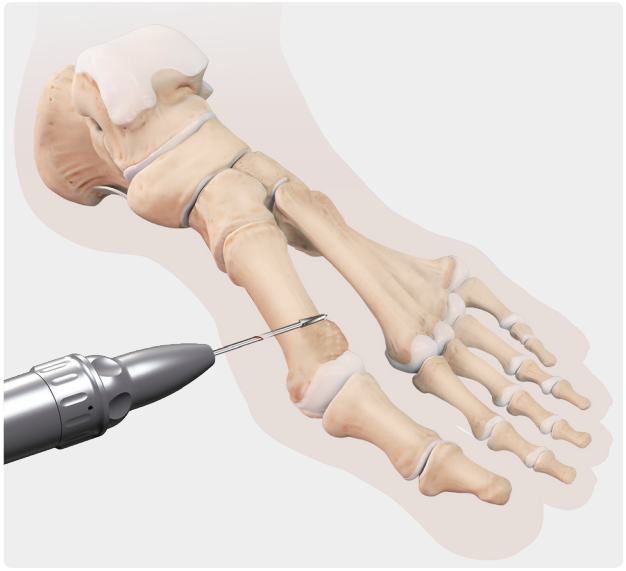
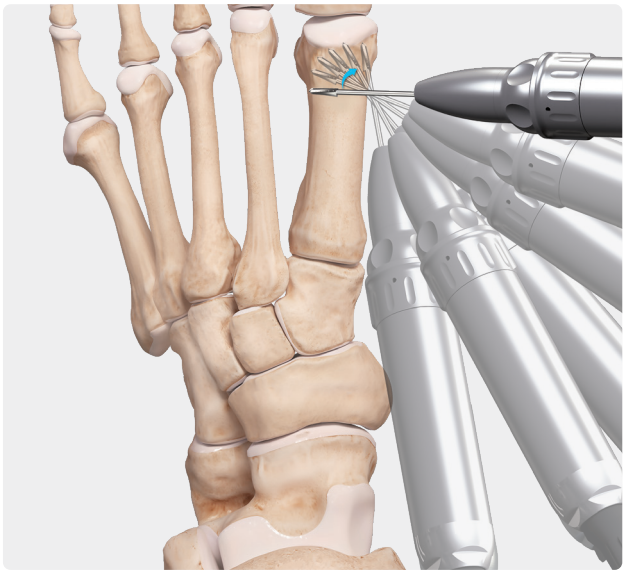




1

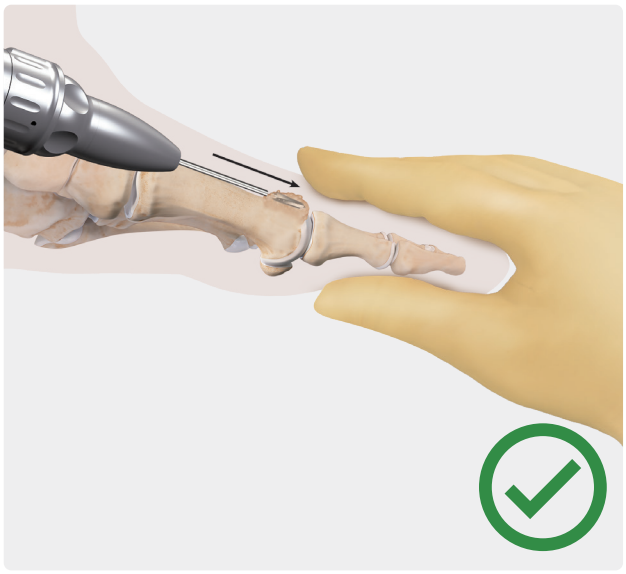
Make an incision at the dorsal one-third of the metatarsal shaft approximately 15-20 mm proximal to the MTP joint. Using the periosteal elevator, free the dorsal capsule and soft tissue from the bone spur at the metatarsal. This starting position allows for the capsular release and clearance of the spur. Take care to avoid the dorsomedial cutaneous nerve of the hallux and the extensor hallucis tendon. Elevate and fully release the capsule from the osteophytes to create a clear path for spur excision, prevent fragment adherence, and facilitate removal of cortical fragments at the end of the procedure.

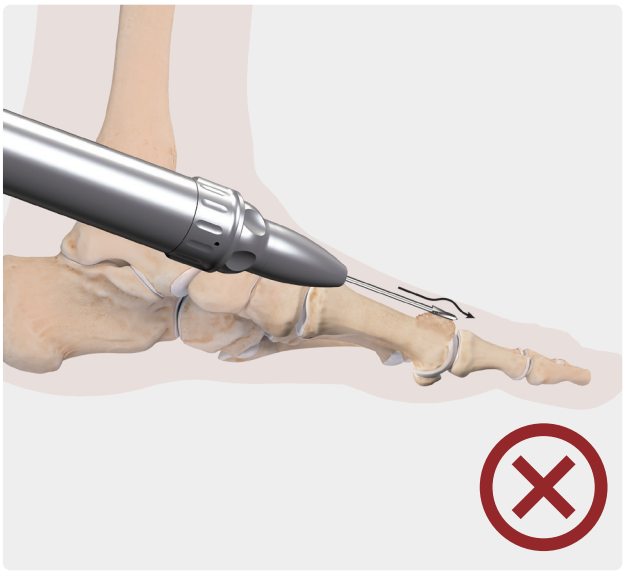




2

Introduce the 2.9 or 4.3 mm wedge burr through the incision and begin to shave the bone spur. Rotate the burr from lateral to medial, making sure to avoid superior migration over the spur. Maintain the hallux in neutral or slight extension during osteotomy to avoid excessive EHL tension, mitigating the risk of inadvertent tendon laceration/tenotomy. Additionally, apply distraction to the hallux when perfuming the osteotomy to protect the phalangeal articular surface. The objective is to create a plane between the osteophyte and the remaining metatarsal head.

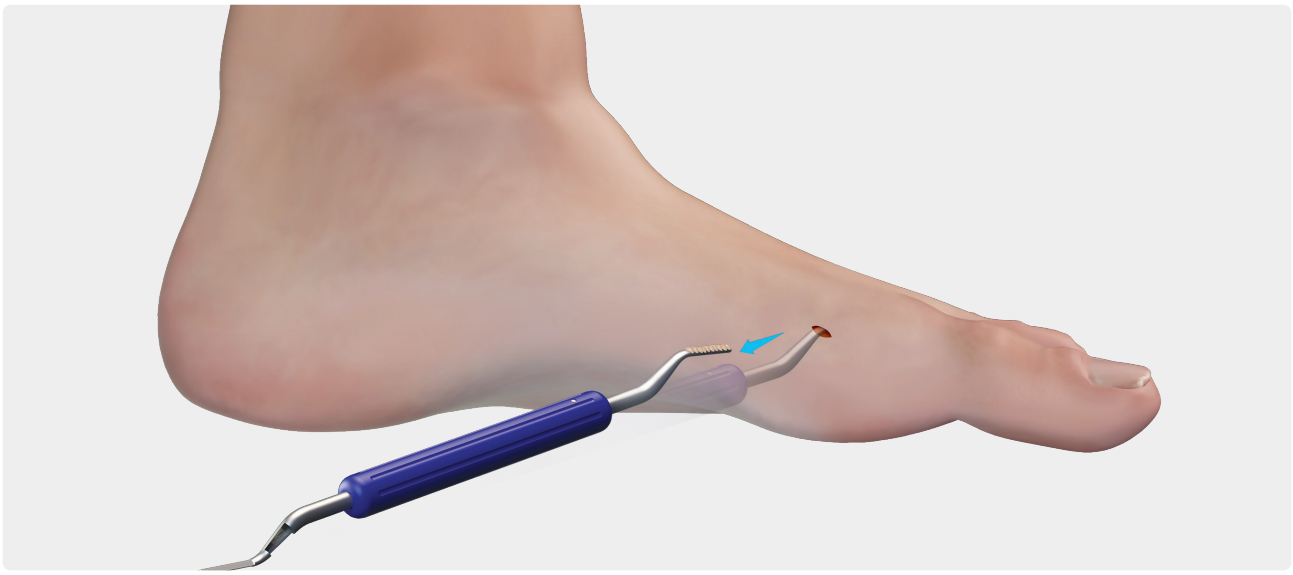




Note: It is important to rotate the burr into the spur as depicted in the image on the left. Do not let the burr rotate over the top of the spur (image on right).

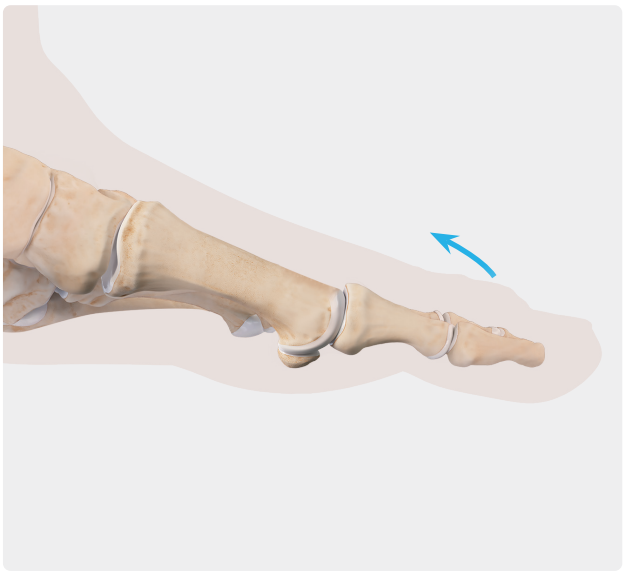
3

Upon completion of the exostectomy, remove the remaining slurry/debris via manipulation and compression toward the incision site. The bone debris will exit the incision site as paste and should be expressed out at regular intervals. A large syringe, for example, a 14-gauge angiocath filled with saline, may be used to remove any remaining bony debris.



4

Finally, use the small or large rasps to facilitate further removal of any bony debris from the surrounding soft tissue. A straight mosquito hemostat can be inserted to remove any larger fragments. It is important to note that the rasps are not used to smooth out the bone spur, but rather to gently remove any remaining bony debris.



5

Final confirmation of an adequate resection should be confirmed using fluoroscopy. Dorsiflexion improvement should also be noted.

6

Midfoot cheilectomy: alternatively, bone spurring at the midfoot can also be addressed and removed through a minimally invasive approach. Use the same procedural steps as previously outlined.

Ordering Information

MIS Instrument Set (AR-8880S)	
Scalpel handle, 13 cm	3KL
Rasp and blunt elevator, small	AR-8880-01
Rasp and blunt elevator, medium	AR-8880-02
Combination elevator, straight and curved ends, sharp	AR-8880-03
MIS instrument case	AR-8880C

Percutaneous Burrs	
Burr, wedge, Ø4.3 mm × 13 mm	AR-301-B101
Burr, wedge, Ø2.9 mm × 13.2 mm	AR-301-B102

Products advertised in this brochure/surgical technique guide may not be available in all countries. For information on availability, please contact Arthrex Customer Service or your local Arthrex representative.

Biologics Augmentation Option

JumpStart® Antimicrobial Wound Dressings
JumpStart dressings are composed of advanced microcurrent-generating technology used for the management of surgical incision sites. JumpStart dressings can be applied directly over sutures, staples, Steri-Strip wound closures, and liquid skin adhesives.

This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

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