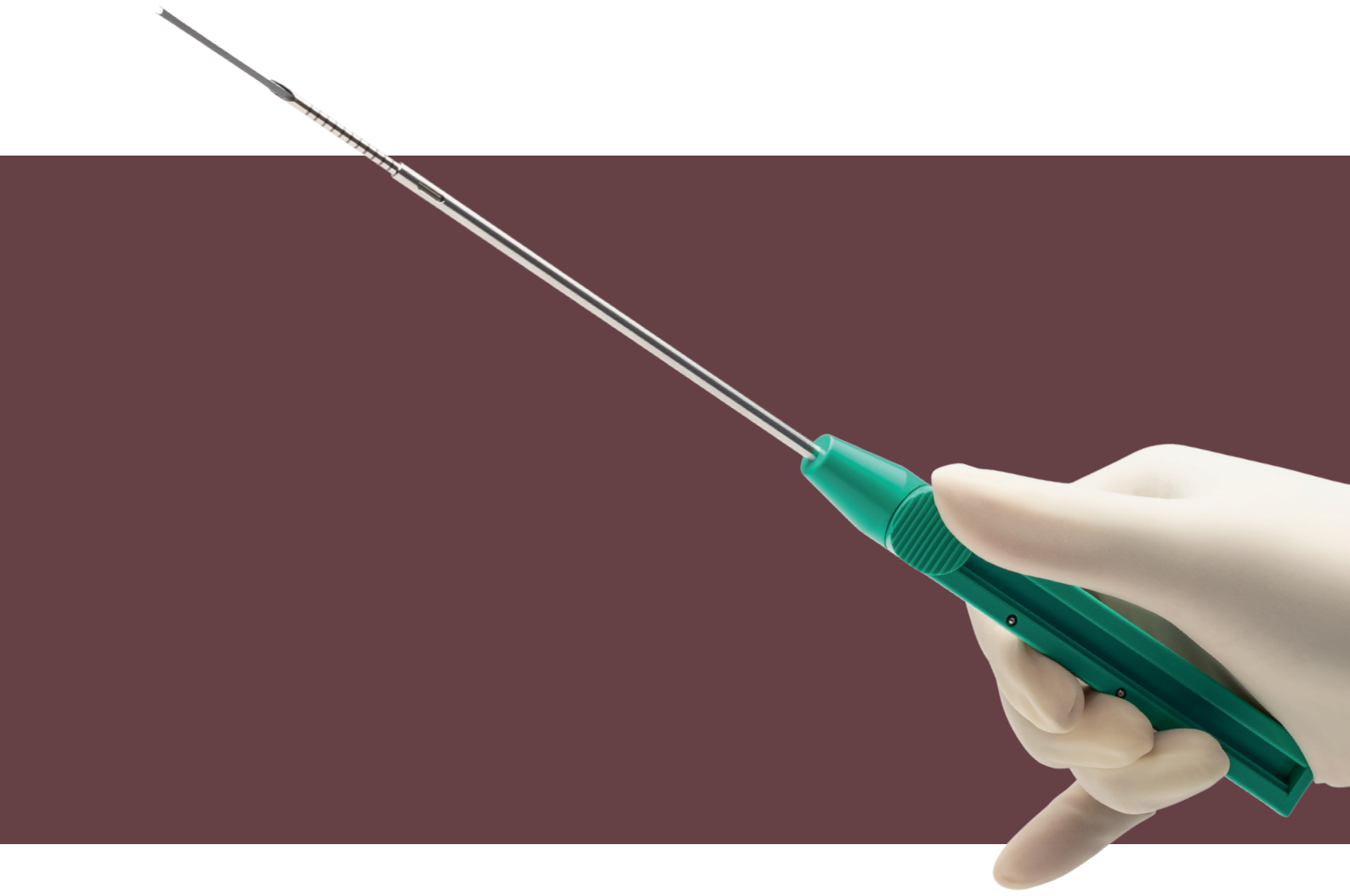
AmnionXpress™ Delivery Device

Surgical Technique

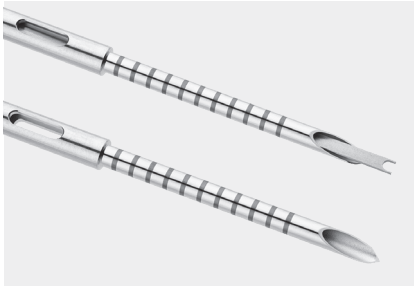


Arthrex®

AmnionXpress™ Delivery Device

For the insertion of an Arthrex Amnion™ 5 mm × 40 mm streamer to damaged pathologic tissue in the shoulder

The AmnionXpress delivery device is used for precise insertion of an amniotic matrix strip directly to the pathologic tissues. The inherent properties of amniotic tissues help provide an anatomic barrier to aid in providing mechanical protection, while proprietary processing retains nutrient-rich growth factors essential for signaling.[1,2] The feel of the device will be familiar to arthroscopic surgeons, as it is similar to the SutureLasso™ suture passers.



AmnionXpress delivery device before loading and with the forked-tip nitinol needle fully deployed.

The AmnionXpress delivery device is designed to allow the simple loading of Arthrex Amnion matrix strips made from umbilical cord membrane and measuring 40 mm × 5 mm through a slot that is captured and advanced by a forked-tip nitinol delivery needle.

AmnionXpress delivery device

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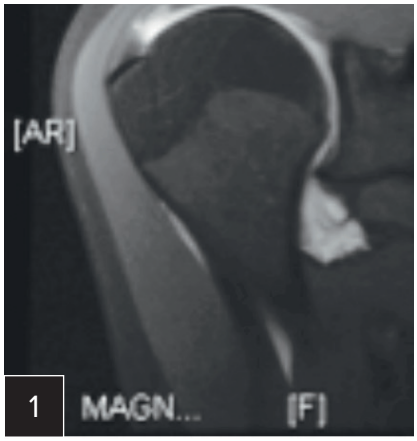
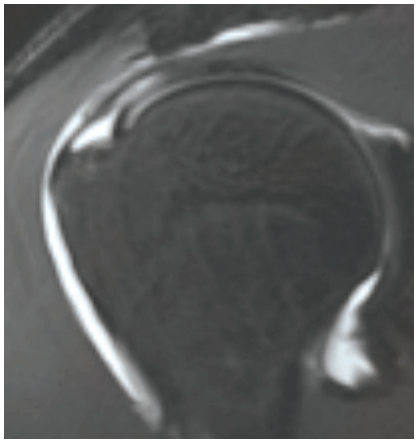
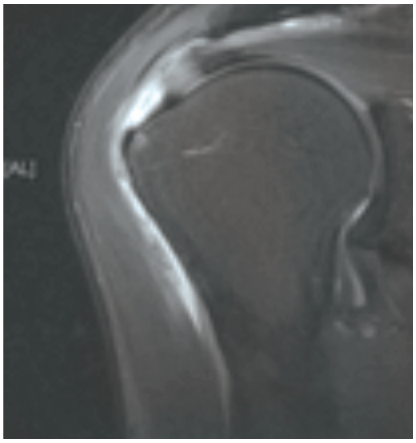
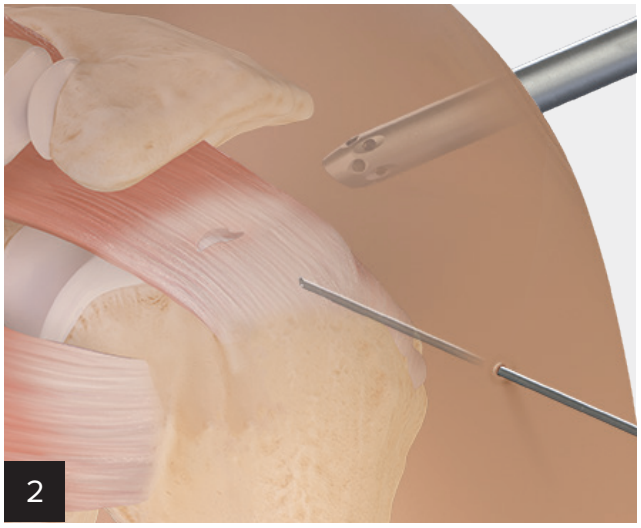


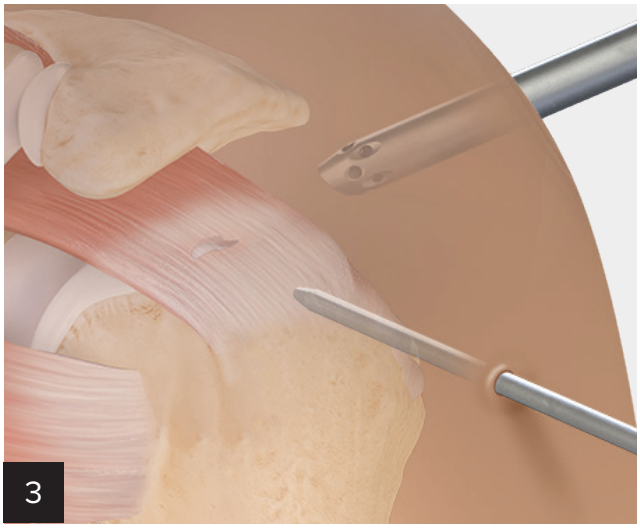




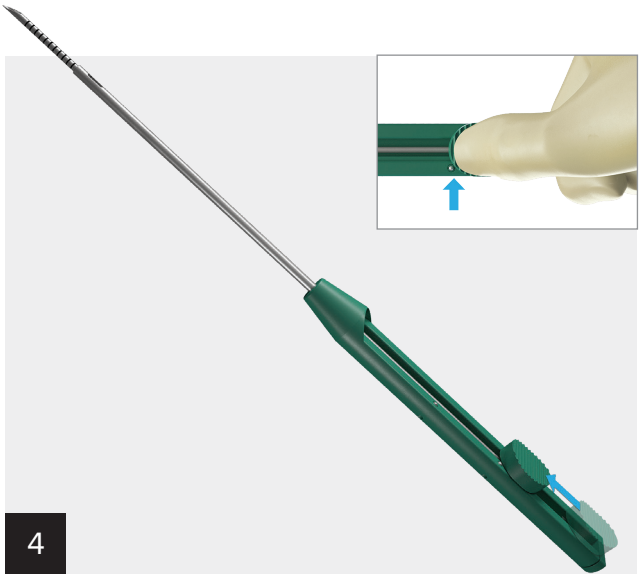
Use preoperative MRI and/or intraoperative assessment to identify the pathologic area to be treated.



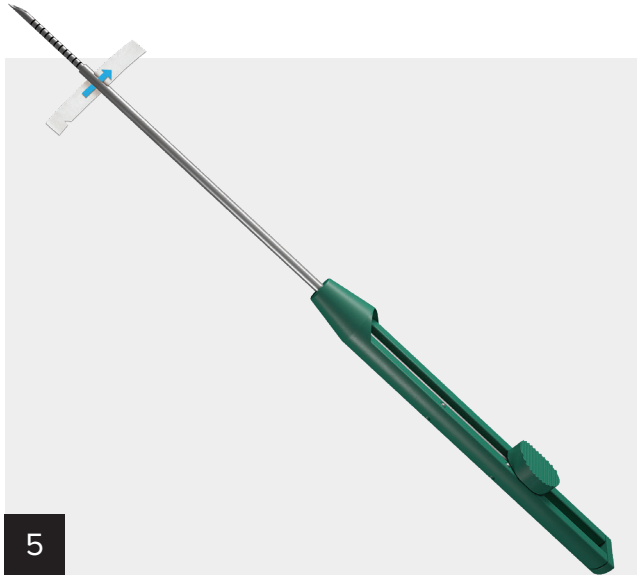
Once the pathologic area is identified, determine the appropriate path and depth insertion of the AmnionXpress delivery device to the damaged rotator cuff. This is done by first localizing a “straight shot” using a localizing spinal needle percutaneously.



Once the path is established with the spinal needle, make a small skin incision just large enough to accommodate a switching stick. If desired, a switching stick can be used to dilate a course through the deltoid/soft tissues.

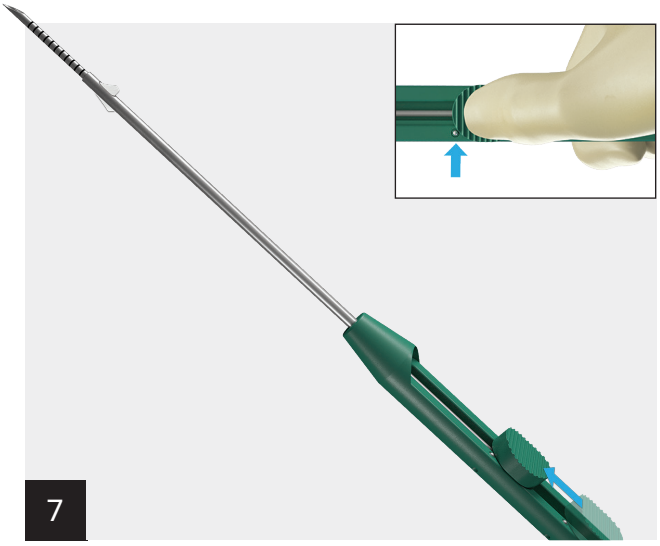


Advance the thumb slide plunger to the first metal ball stop. There is a palpable stop here that corresponds to the point where the fork-tipped nitinol delivery needle stops just short of the window.

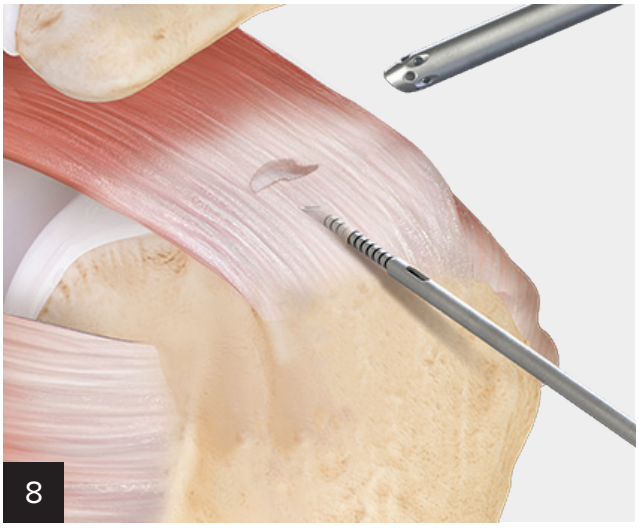


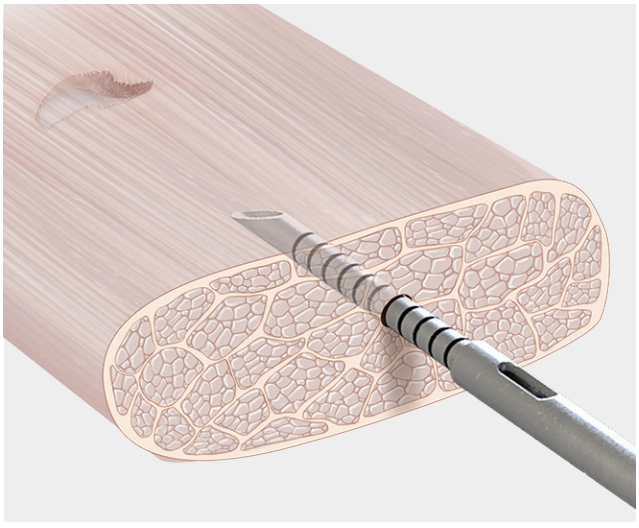
While the amnion streamer is dry, insert one end half way through the window in the metal shaft of the AmnionXpress delivery device.

Wet the streamer lightly. It will become quite pliable and ready for loading.

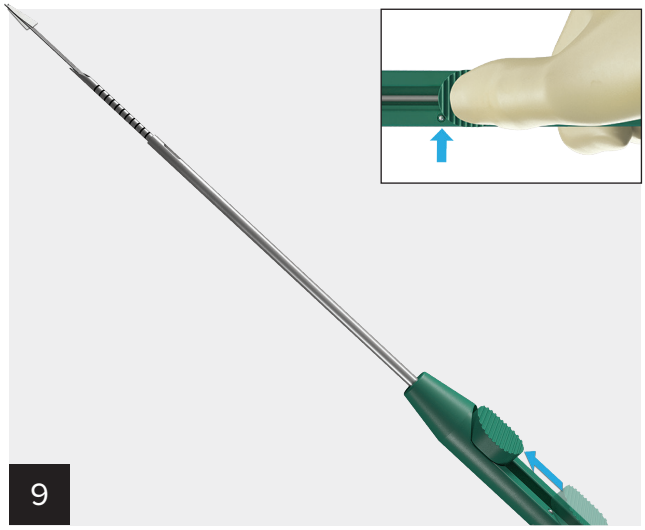


Advance the thumb slide plunger evenly to the second stop. The forked-tip nitinol needle can be seen traversing the window and snaring the central portion of the amnion streamer, advancing it further into the AmnionXpress delivery device.

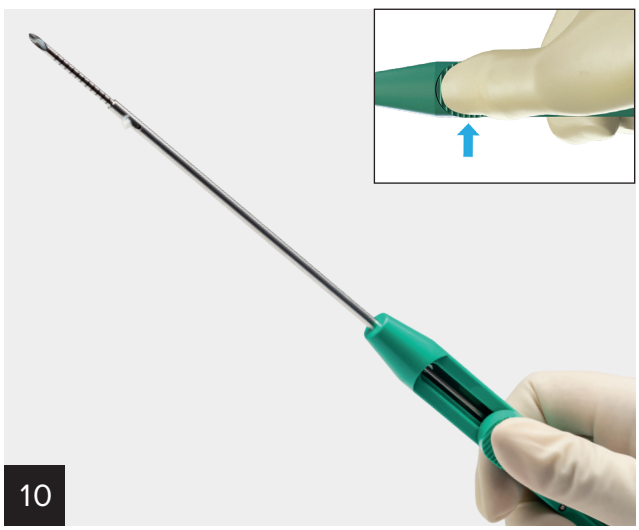




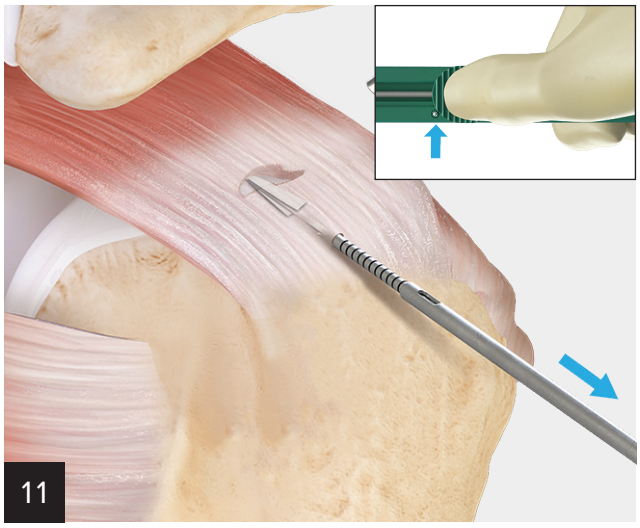
Place the AmnionXpress delivery device into the subacromial space along the line that the spinal needle took to ensure that a “straight shot” can be achieved into the pathology. The AmnionXpress delivery device can be placed on top of the damaged cuff to visualize the line and the measured depth of insertion.

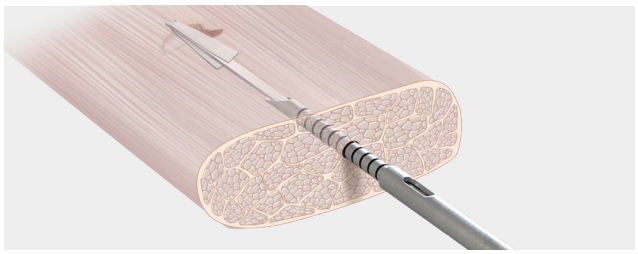


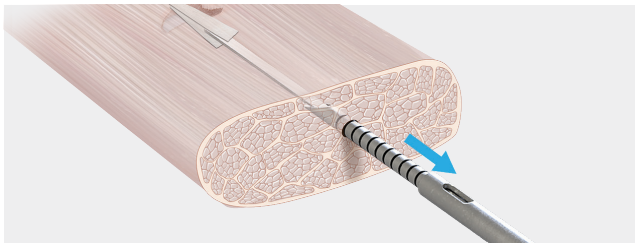
Once the AmnionXpress delivery device is applied to the diseased tissue to the appropriate depth, advance the thumb slide plunger of the device all the way to the hard stop, while pulling out the device to 2.5 cm. Complete insertion ensures that the trailing end of the amnion streamer clears the tip of the device.



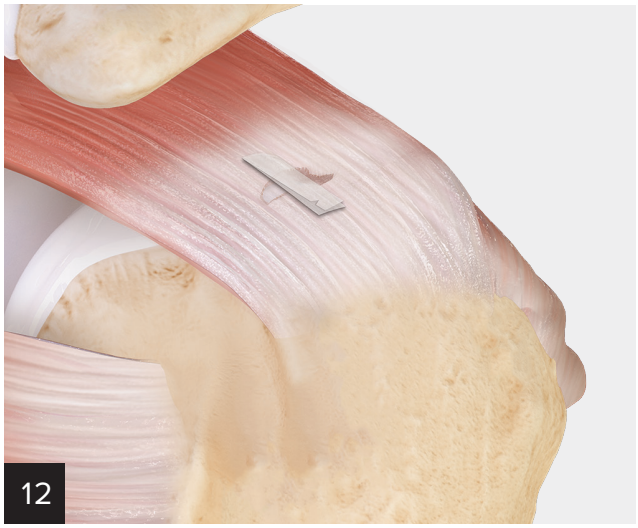
This step demonstrates the fully deployed position of the AmnionXpress delivery device. The position of the forked-tip nitinol needle when the thumb slider is fully advanced corresponds to a distance of 2.5 cm beyond the delivery device.







Because the amnion streamer has cleared the end of the AmnionXpress device with full deployment, retracting the nitinol needle while holding the delivery device in place ensures that the amnion streamer remains in the precise position in which it was placed. Slowly withdraw the AmnionXpress delivery device. This completes the procedure.



Completed procedure showing the Arthrex Amnion™ streamer in place. If necessary, repeat the procedure to insert another streamer.

Ordering Information

Product Description	Item Number
AmnionXpress™ Delivery Device	ABS-**4400**
Arthrex Amnion™ Matrix, cord membrane, 5 mm × 40 mm	ABS-4200-**054**

References

1. Rowlatt U. Intrauterine wound healing in a 20 week human fetus. *Virchows Arch A Pathol Anat Histol.* 1979;381(3):353-361. doi:10.1007/BF00432477.

2. Coolen NA, Schouten KC, Middelkoop E, Ulrich MM. Comparison between human fetal and adult skin. *Arch Dermatol Res.* 2010;302(1):47-55. doi:10.1007/s00403-009-0989-8.