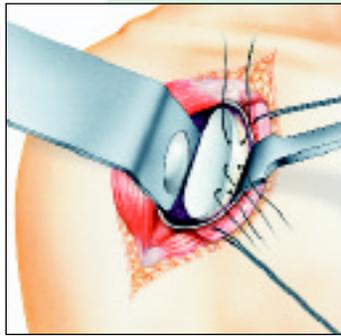




bankart  
repair



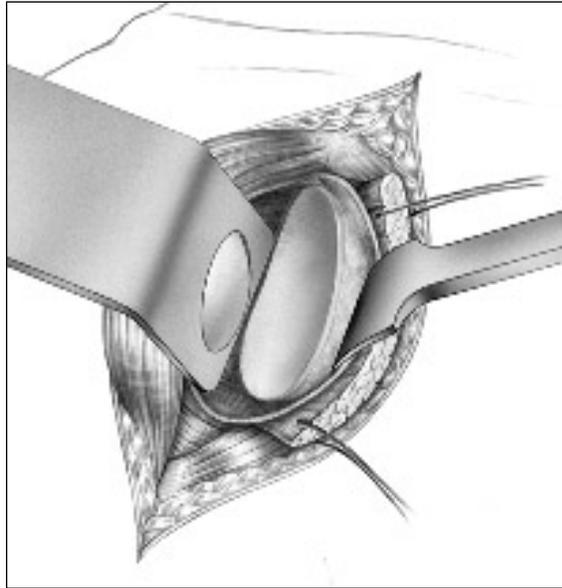
**surgical technique**

**Curvitek**<sup>®</sup>  
BONE TUNNELING SYSTEM

**ARTHROTEK**<sup>®</sup>  
A BIOMET COMPANY



## anterior approach and exposure of defect



A vertical incision is marked in line with the anterior axillary crease. The dissection is carried down through the subcutaneous tissue and the deltopectoral interval identified. The cephalic vein usually serves as a marker for the interval and the cephalic vein is retracted laterally with the deltoid. The interval is entered bluntly. The clavipectoral fascia is incised just lateral to the conjoined tendon and the coracoacromial ligament incised. A Balfour retractor is then placed to retract the deltoid laterally and the conjoined tendon medially, thereby providing a generous exposure of the proximal humerus.

The subscapularis and anterior capsule are taken down off their insertion into the lesser tuberosity about 1 to 1½cm medial to the bicipital groove. Care is taken to leave an adequate cuff of tissue on the lesser tuberosity for the subsequent repair. The rotator interval is opened superiorly and the dissection is carried along the inferior aspect of the neck about halfway back, taking care to avoid injury to the axillary nerve. Tagged sutures are placed in the subscapularis half of the retracted tendon. The shoulder joint is then inspected and palpated for a Hill-Sachs defect and any loose bodies are removed.

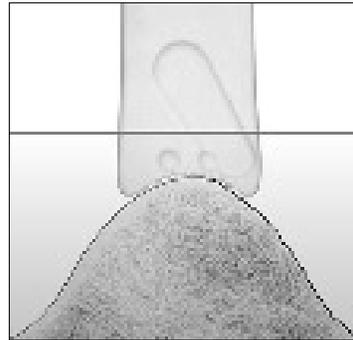
The anterior inferior glenoid area is then carefully inspected for the presence of a Bankart defect.

## decortivating anterior glenoid

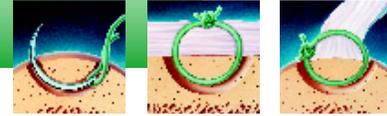


Deep exposure is facilitated by placement of a Fukuda humeral head retractor in the joint, and by placement of a small broad Hohmann retractor between the neck of the glenoid and the capsule. A small curved osteotome is used to decorticate the bone on the non-articular aspect of the anterior portion of the glenoid.

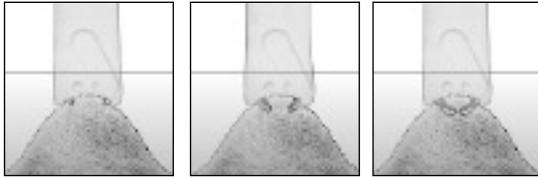
## cartridge placement and irrigation



The CurvTek® cartridge is centered on the anterior ridge of the glenoid, ensuring perpendicular orientation to the bone's surface. This places the entry holes for the transosseous tunnel in the articular and non-articular aspects of the glenoid, at equal distances from the glenoid's edge. Copious irrigation of the cartridge, either pulsed lavaging or submerging, is necessary to ensure bone debris removal from the drill holes and cutting tips.

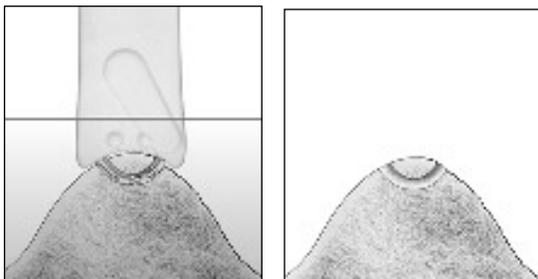


## cutter head advancement

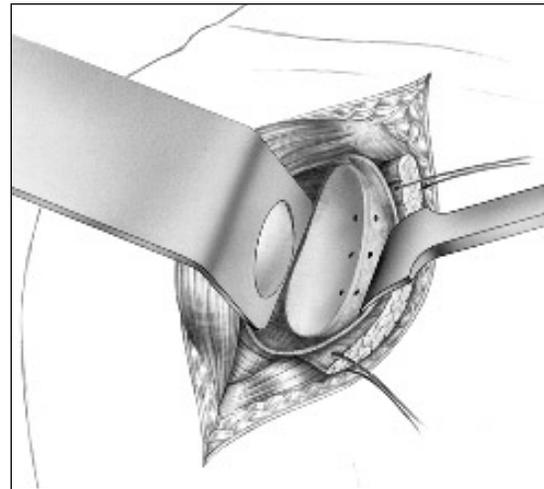


Stabilize the cartridge firmly against the bone during the technique. Initiate the holes for the transosseous tunnel by gently advancing the trigger until resistance is felt from the cutter heads. When resistance is felt, each cutter head has initially advanced into the bone about 1mm. Gently release the trigger. It is important to gently and gradually cycle the trigger to ensure the entry holes are properly prepared for an evenly curved tunnel. With subsequent gentle trigger cycles, the cutter heads advance about 1mm further into the bone.

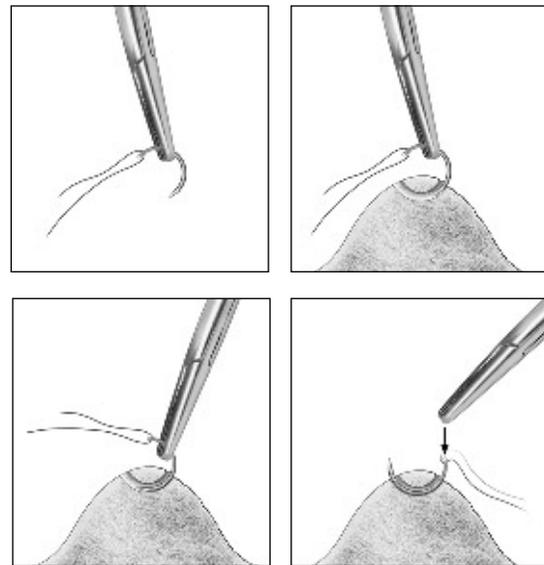
## completing the transosseous tunnel



When the trigger is fully advanced, a cutter head passes across the center line of the cartridge to complete the transosseous tunnel. Depending on the size of the Bankart defect, place two to four transosseous tunnels through the anterior aspect of the glenoid.

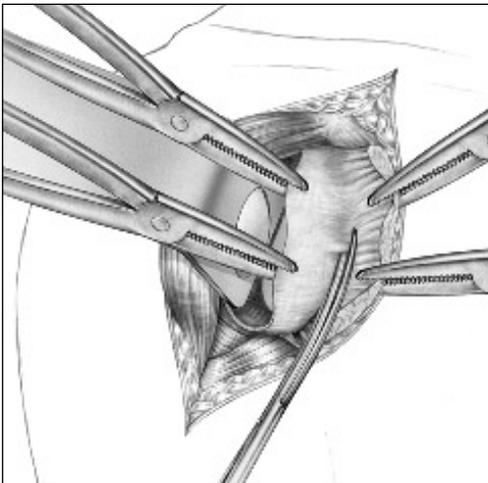
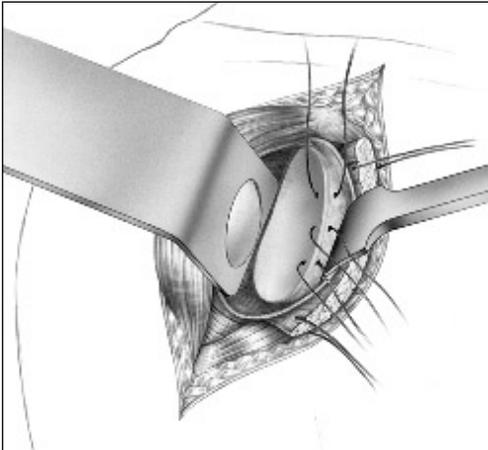


## needle passing



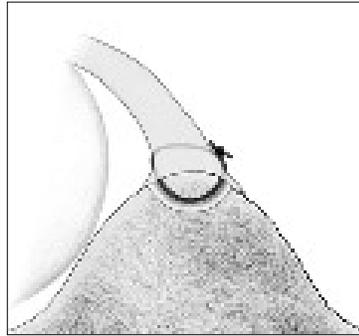
Place the jaws of the instrument on the sides of the needle and orient the needle parallel to the long axis of the instrument. Position the inside arc of the needle against the roof of the transosseous tunnel. This aligns the needle with the radius of the transosseous tunnel. Advance the needle while rotating the needle holder away from the entry point. Gently feed the needle through the length of the tunnel.

## capsule and subscapularis dissection



After #1 braided nylon sutures are passed through the tunnels, the capsule is sharply separated from the subscapularis. This is performed under direct view by grasping the subscapularis with two Kocher clamps and the capsule with two more Kocher clamps then cutting directly between them. Leave a portion of the subscapularis attached to the capsule to reduce the risk of buttonholing through the capsule. After the first centimeter of this cut, the dissection proceeds easily.

## closing the bankart defect



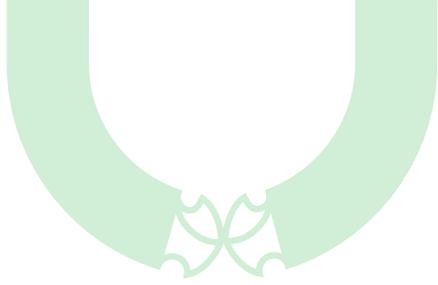
The sutures are passed through the anterior capsule at the site of desired capsule attachment to the glenoid. The sutures are then tied in the interval between the subscapularis and anterior capsule, thereby closing the Bankart defect.

## closure

The anterior capsule and subscapularis are reattached to the cuff of tissue on the lesser tuberosity. The bone on the anatomic neck of the lesser tuberosity (just off the articular surface) is debrided with a rongeur. If the patient requires a capsulorrhaphy in addition to the Bankart repair, this can be performed by dividing the anterior capsule into superior and inferior leaflets and crossing them as they are reattached to the cuff of tissue on the lesser tuberosity. Care must be taken to close the rotator interval superiorly.

Subsequent closure of the subcutaneous tissue and skin is performed with absorbable sutures and steri-strips. Dressings and a shoulder immobilizer are applied and the patient is taken to the recovery room.





# bankart repair surgical technique



## **preface**

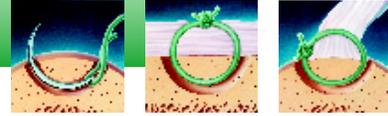
The Bankart repair is a technically demanding procedure used to restore shoulder stability. Because the original method of creating a transosseous tunnel with a straight drill is difficult, alternative techniques involving arthroscopy, suture anchors, absorbable tacks, staples or screws are frequently used. However, my preferred method of repairing the capsulo-labral defect anatomically is by the original Bankart technique of drilling transosseous tunnels.

After performing over 100 Bankart repairs using the CurvTek® technique, I find that it eliminates the difficulty of drilling transosseous tunnels. The technique provides secure reattachment of the capsulo-labral defect directly back to the glenoid's rim and the tissue lays flat against the bone's surface to anatomically restore the glenoid's concavity.

The CurvTek® System is highly recommended for Bankart repairs. This unique system enables the surgeon to perform a true transosseous Bankart repair quickly, accurately and easily without the use of staples, screws or anchors.

Richard M. Kirby, M.D.  
Orthopedic Physician Associates  
Providence Hospital, Seattle Surgery Center  
Seattle, Washington





## ordering information

### CurvTek® Handpiece

906740

### Nitrogen Hose, 3 Meters Long

906743

### CurvTek® Lubricant

906740

### CurvTek® Sterilization Case

906796

### CurvTek® Sterilization Case Accessories

906797

### CurvTek® Cartridge

906750 7mm Medium

906754 12mm Large

906758 22mm X-Large

### CurvTek® Needles (pkg. of 3)

906760 7mm Medium

906764 12mm Large

906768 22mm X-Large

906770 22mm X-Large Blunt

906771 7mm Medium Extra Long

906775 7mm Medium Extended Flat

This surgical technique was developed in conjunction with Richard M. Kirby, M.D., Orthopedic Physician Associates Providence Hospital, Seattle Surgery Center, Seattle, Washington.

This brochure is presented to demonstrate the surgical technique utilized by Richard M. Kirby, M.D. Arthrotek, as the manufacturer of this device, does not practice medicine and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any procedure is responsible for determining and utilizing the appropriate techniques for such procedure for each individual patient. Arthrotek is not responsible for selection of the appropriate surgical technique to be utilized for an individual patient.

## part number conversion chart

Arthrotek Part No.	Bioelectron Part No.	Description
906750	30-0202	CurvTek Cartridge 7mm (Medium)
906754	40-0203	CurvTek Cartridge 12mm (Large)
906758	22-0202	CurvTek Cartridge 22mm (X-Large)
906760	30-0001	CurvTek Eye Needle 7mm (Medium) Pkg. 3
906764	40-0001	CurvTek Eye Needle 12mm (Large) Pkg. 3
906768	22-0001	CurvTek Eye Needle 22mm (X-Large) Pkg. 3
906770	22-0010	CurvTek Eye Blunt Needle 22mm (X-Large) Pkg. 3
906771	22-0010	CurvTek Eye Extra Long Needle 7mm Pkg. 3
906775	22-0010	CurvTek Eye Extended Flat Needle 7mm Pkg. 3
906740	100-0001	CurvTek Handpiece
906743	100-0020	Nitrogen Hose, 3 meters long
906744	100-0005	CurvTek Lubricant, 1 oz.
906796	101-0111	Sterilization Container System
906797	101-1234	Sterilization Container Accessories

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