THE AUSTIN BUNIONECTOMY

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Distal osteotomies of the first metatarsal are the most commonly-utilized procedures for the correction of hallux valgus. The chevron osteotomy, which was popularized by Austin in the early 1980s, has been the procedure of choice due to its inherent stability and relative ease of execution. The application of internal fixation has enhanced postoperative results by maintaining position and stability of the capital fragment. Because the osteotomy is rigidly immobilized, early aggressive range of motion exercise is possible.

Recently, there has emerged a trend to modify the Austin osteotomy to accommodate multiple points of fixation. The most popular modifications are the "Kalish" and the "Z" osteotomies. The author believes these modifications are unnecessary, less mechanically sound, more difficult to perform, and provide no significant benefit over the traditional Austin bunionectomy. The author also believes that the traditional Austin bunionectomy holds certain advantages over the modifications, most notably: potential for greater transposition, absence of the troughing effect, mechanical stability of metaphyseal bone, less soft tissue dissection, and the fact that weight bearing enhances the fixation.

ILLUSTRATED PROCEDURE



Figure 1. Soft tissue dissection is performed and the dorsomedial eminence is resected.



Figure 2. A point is chosen for placement of the apical axis guide, which is at the mid-point of a line connection the dorsal and plantar articular surfaces.



Figure 3. A standard Austin osteotomy is performed, and the axis guide wire is removed. The cuts are made at 90° to one another.



Figure 5. Screw fixation is performed from proximal-dorsal to distalplantar, using either a 3.5 mm fully-threaded cancellous screw, or a 4.0 mm partially-threaded cancellous screw. A 0.062" K-wire is used to make a pilot hole, followed by a 2.0 mm hand drill. The exit point should be visualized, and when possible, the drill hole should be parallel to the dorsal arm, allowing compression in line with the ostectomy.



Figure 4. The capital fragment is translocated laterally, and impacted on the proximal metaphysis. A 0.062ⁿ K-wire is driven across the osteotomy site for temporary stabilization.



Figure 6. Following the use of a countersink, a depth gauge is used to measure the screw length. A tap is then used to create the thread pattern through the bone.



Figure 7. The screw is inserted, and stable fixation is achieved. The temporary K-wire is removed prior to tightening the screw.



Figure 8. Final appearance of the screw fixation.