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Fusions: Why I Don’t do Distal Osteotomies
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Paul W. Lapidus, MD published his experience with an operation for the correction of hallux valgus ¹. In his report, Lapidus stated his purpose was “to stress the mechanical importance of the metatarsus primus varus, as one of the most frequent and most prominent factors of the hallux valgus deformity.” He described an operation that included an arthrodesis of the first tarsometatarsal joint, the creation of a proximal synostosis between the first and second metatarsal and a distal soft tissue release that corrected an atavistic “square foot” that he believed had a congenital predisposition toward hallux valgus. Lapidus refined his indications and modified his surgical technique ²,³. Over time, he concluded that patients with hallux valgus who manifested a fixed metatarsus primus varus and an intermetatarsal angle greater than fifteen (later revised to greater than ten to twelve) degrees warranted his procedure. He identified that the formation of a robust synostosis prevented recurrence of the metatarsus primus varus and that a minimal bony resection laterally from the tarsometatarsal joint was sufficient to correct the metatarsus primus varus and achieve union of his arthrodesis.

The Lapidus procedure is indicated for the correction of moderate to severe hallux valgus with metatarsus primus varus ⁴. It is also indicated for the correction of hallux valgus in adolescents with clinical findings of generalized ligamentous laxity ⁵. This procedure is also indicated for the correction of associated hypermobility of the first ray as determined by physical and radiographic examination of the first tarsometatarsal joint with or without concomitant clinical signs of deficient weightbearing function of the first ray ⁶. These coexistent signs could include transfer metatarsalgia to the second ray presenting as a painful plantar keratosis beneath the second metatarsal head, synovitis of the second metatarsophalangeal joint with attenuation or rupture of the plantar plate with a supple or fixed hammertoe or mechanical overload of the second ray manifesting as cortical hypertrophy of the shaft or primary arthritis of the second tarsometatarsal joint. Also, the Lapidus procedure is a salvage operation for recurrent hallux valgus after prior surgical treatment ⁷.

The Lapidus procedure is a powerful operation for correcting metatarsus primus varus and hallux valgus. Its main advantage over all other bunion procedures is its capacity to correct four deformities in three different planes simultaneously. The biplanar osteotomy of the medial cuneiform corrects the metatarsus primus varus and hallux valgus in the medial plane, allows plantar translation or angulation in the sagittal plane to address forefoot varus and corrects pronation of the toe in the axial plane when the metatarsal is positioned for arthrodesis. Another advantage is that reliably salvages the failures of other bunion procedures and the follow-up is neither tedious or time consuming. Frequent painstaking and fussy dressing changes with taping or strapping of the hallux to maintain the correction are unnecessary with the Lapidus procedure. Although this operation requires an arthrodesis, the tarsometatarsal joint is not an essential articulation for accommodative motion or for the dissipation of the shear forces associated with weightbearing.

In conclusion, the power to correct metatarsus primus varus, forefoot varus and pronation along with hallux valgus makes the Lapidus procedure a mainstay in the correction of a symptomatic bunion and its associated deformities.