

Publication

## Realignment surgery for valgus ankle osteoarthritis

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**OBJECTIVE:** Improvement of joint congruence, reduction of pain, slowdown of osteoarthritis progression, and prevention or delay of total ankle arthroplasty or ankle fusion. **INDICATIONS:** Active patients with lateral valgus ankle joint degeneration. **CONTRAINDICATIONS:** Patients in poor general condition. Inability to adhere to postoperative non-weight-bearing rehabilitation. Distinct cartilage degeneration of more than half of tibiotalar joint surface. Systemic joint disease. Insufficiency of the deltoid ligament with tibiotalar subluxation malalignment. **SURGICAL TECHNIQUE:** Depending on stage of deformity: Stage I—collapse of the lateral tibia plafond and/or lateral malleolar gutter with subsequent valgus ankle arthritis: medial closing-wedge osteotomy of the distal tibia. Derotation- lengthening osteotomy in case of fibula malunion. Stage II—excessive calcaneus valgus: add medial sliding calcaneus osteotomy. Stage III—forefoot-induced hindfoot valgus (flatfoot deformity with forefoot abduction): add repair/augmentation of the posterior tibial tendon, superficial delta and spring ligaments; gastrocnemius/triceps release; flexion osteotomy of the first cuneiform or metatarsal bone or fusion of the first tarsometatarsal joint. **POST-OPERATIVE MANAGEMENT:** Continuous active and passive range of motion starting at the 2nd postoperative day. Removable short leg cast during nights. Partial weight bearing for 6-8 weeks until osseous healing has occurred, followed by gradual return to full weight bearing and activity. **RESULTS:** 14 patients with stage I, three with stage II, and five with stage III valgus ankle osteoarthritis were treated. In two cases realignment surgery failed and progressive painful arthritis was treated by arthroplasty. The other 20 patients improved at an average follow-up of 4.5 years (range 3-6.5 years). Eight patients (41%) were free of pain. Tibiotalar arthritis and alignment (Takakura Score) improved significantly and correlated with significant improvement of pain (visual analog scale) and function (American Orthopaedic Foot and Ankle Society Score).

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