

AN ALGORITHM FOR DIGITAL SURGERY

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I. Simple Hammertoe Deformity (Mallet Toe)

Definition: Flexion contracture at proximal interphalangeal joint, or distal interphalangeal joint (flexible or ankylosed).

Dorsal interphalangeal irritation or lesion.

NO significant metatarsophalangeal extension contracture or transverse plane deviation.

Procedure:

1. Arthroplasty (with or without temporary fixation or internal splinting)

II. Moderate Hammertoe Deformity

Definition: Flexion contracture at proximal interphalangeal joint, with mild to moderate extension contracture at the metatarsophalangeal joint.

NO medial or lateral deviation at the metatarsophalangeal joint.

Procedures:

1. Proximal interphalangeal joint arthrodesis (isolated arthroplasty).
2. Extensor hood release.
3. Extensor tendon lengthening (when indicated).
4. Dorsal metatarsophalangeal joint capsulotomy (when indicated) metatarsophalangeal joint collateral ligament left intact.

III. Severe Hammertoe Deformity

Definition: Flexion contracture, ankylosis proximal interphalangeal joint.

Moderate to severe metatarsophalangeal joint extension contracture (with or without dorsal joint luxation).

Medial or lateral luxation of the proximal phalanx on the metatarsal head.

With or without osseous adaptation;

— flattening and loss of contour of the phalangeal base

— deformation of the metatarsal head.

Procedures:

1. Arthrodesis proximal interphalangeal joint.
2. Extensor hood release.
3. Extensor tendon lengthening.
4. Metatarsophalangeal joint release;  
— dorsal,  
— medial, lateral,  
— plantar.
5. Flexor tendon transfer (and other muscle-tendon balance manipulations).
6. Arthroplasty;  
— phalangeal base resection,  
— metatarsal head resection (partial/total) syndactyly.

IV. Miscellaneous Digital Deformities

— Heloma Molle fourth interspace

— Condylar Impingement (interdigital heloma durums)

— Varus Rotation (5, 4, etc.)

— Transverse Plane Instability, Deviation

— Reverse Hammertoe