Plantar Plate Disruption of the Lesser Toes (2 through 5) – CITATION SUMMARY

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The plantar plate of the foot is formed by the plantar aponeurosis and plantar capsule. The plantar plate supports the undersurface of the metatarsal head and resists hyperextension of the metatarsophalangeal joint (MTPJ), withstanding considerable compressive and tensile forces. Plantar plate disruption or rupture most commonly occurs at the second MTPJ, with subsequent instability of the MTPJ and dorsal subluxation of the proximal phalanx. This "cockup" deformity, also termed “overriding toe deformity”, at the MTPJ shortens and compromises the action of the extensor digitorum longus tendon and contributes over time to a flexion deformity at the interphalangeal joints. This condition is particularly painful to the dancer in relevé. While surgery is an option, primary repair may result in painful scarring and the frequently used flexor tendon transfer comprises other structures.