



**Limb Deformity Case Study #2:** Patient is a 14 year old female who initially presented with a right knee flexion deformity, a 20° arc of knee motion (60°-80° of flexion), and growth arrest of her right distal femoral growth plate. Her injuries were the result of a skiing accident that she sustained 10 months prior to presentation at HSS. As a result of her accident she sustained a right tibial spine avulsion fracture that was initially treated (at an outside institution) with surgical repair of the avulsed tibial spine. She went on to develop a knee flexion contracture and, according to the report, was brought back to the operating room for a knee manipulation approximately three months after the arthroscopic tibial spine repair. Approximately two weeks post manipulation she was diagnosed with a distal femur physeal fracture and was treated with casting for six weeks.

Surgical plan: Two-stage procedure. Stage 1 - Correction of the right distal femur deformity utilizing an osteotomy and blade plate fixation. Stage 2 – Arthroscopic lysis of the soft tissue adhesions and screw epiphysiodesis of the left knee.

Figure 1: Lateral x-ray image of the right knee obtained during her initial presentation to HSS.



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Figure 2A and 2B: Post-operative AP and lateral x-ray images of the right knee after surgical correction of the distal femoral knee flexion deformity and arthroscopic adhesion lysis.



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Figure 3: Post-operative x-ray image demonstrating screw epiphysiodesis of the left knee.



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Figure 4: Scanogram x-ray obtained three years postoperatively, demonstrating good alignment and limb symmetry within clinical tolerance.

