

# Smillie's Classification of Freiberg Disease

Smillie's classification [10].

Staging	Description
Stage I	The earliest sign is fissuring of the epiphysis. Radiographic changes at this stage may be so subtle that they are missed with routine radiographs.
Stage II	Later central depression of the articular surface becomes evident as subchondral cancellous bone is resorbed. The articular cartilage hinges on an intact plantar bridge.
Stage III	The central depression is seen to be resulting in medial and lateral projections at the margins. The plantar hinge remains intact at its plantar isthmus.
Stage IV	This stage demonstrates that the central portion has sunk below the surface and is free of the plantar hinge, thus becoming a loose body. Fractures of the medial and lateral projections are present, with folding of the projections over the central loose body.
Stage V	The final stage shows marked flattening and deformity of the metatarsal head with secondary degenerative changes. The central loose body may have been resorbed at this stage. The shaft of the metatarsal becomes thickened and dense.