

FREIBERG INFRACTION

In 1914 Dr. A. H. Freiberg described a condition in which the second or third metatarsal heads of the foot developed significant pain, tenderness, swelling, and x-ray evidence of flattening of the round metatarsal head.

After 90 years the underlying reason why the bone appears to crumble on x-rays has not been elucidated. While an altered blood supply theory competes with a multiple repetitive trauma theory, neither one has been proven to date.

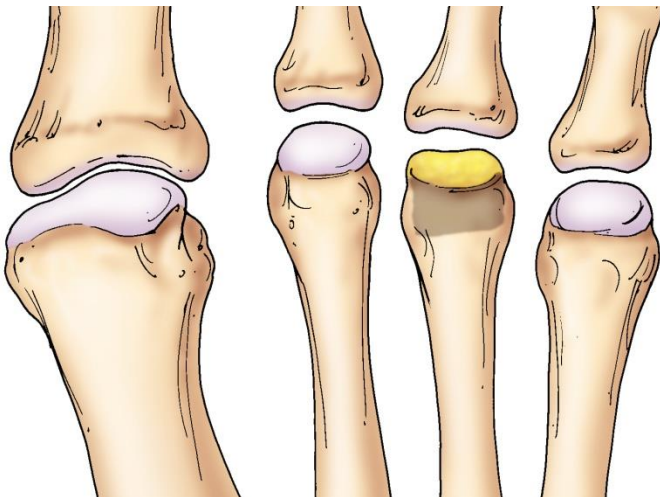
The condition is more common in 10 – 15 year old girls than in boys. Patients will present with a limp of several months duration. Physical examination also shows swelling and tenderness over that joint, as well as limitation of range of motion.

X-rays show “flattening” of the normally rounded joint surface of the metatarsal head with collapse or fragmentation of the epiphyseal growth center as well

After confirming the diagnosis with x-rays, MRI may be utilized to further assess the degree of damage to the blood supply and evaluate the amount of swelling and inflammation inside the joint



The goal of therapy is to allow inflammation and mechanical irritation to resolve. Many patients just require simple advice about avoidance of certain activities, use of shoe inserts and shoe wear modification. For others, a prolonged period of decreased weight bearing with a removable boot, a custom orthosis or a cast may provide sufficient pain relief. Occasionally surgery may be offered to those who have severe pain that fails to respond to immobilization and anti-inflammatory medication(s).



In most adolescents the metatarsal head appears to improve with prolonged immobilization. In particularly painful conditions, the area of damaged bone may be removed and replaced with a bone graft or other corrective surgery. In general the prognosis is favorable once the x-rays have improved.