

Supracondylar Femoral Fracture

Supracondylar refers to the part of the femur just above the knee joint. In the 1960s treatment involved being treated in a traction bed for eight weeks, a fracture brace, then weight bearing might start again at 3 months from injury. This often resulted in a loss of independence, and in some instances death, especially in the elderly. Early internal fixation devices didn't get good fixation in the osteoporotic bone, and were prone to failure.

Osteoporosis is almost invariably part of the problem. Many patients also have vitamin D deficiency, delaying or preventing bone healing. The majority of patients are elderly, and sometimes their independence is threatened. Our preferred solution allows: early relief of pain, no splinting, ability to get out of bed and early weight bearing. This gives us our best chance of return to full function and independence.



Figure 1. The fracture is shown with an x-ray front on, and one from the side of the femur. First aid involves some form of splinting.

The injury occurs just above the knee joint, sometimes the fracture is more complex, and extends into the knee joint.

Modern surgical techniques involve fixing the bone through a small incision at the knee, and a number of smaller incisions further along the thigh. This percutaneous fixation of the femur usually achieves good alignment of the fracture. In our experience, surgery helps expedite the natural healing with callus formation, and enables a better chance of normal function in the long term.



Figure 2. Fracture internally fixed with plate. The locking screws are locked into the plate with a torque wrench. By having multiple screws, even osteoporotic bone is held. The bending forces caused by movement or weight bearing are transferred to the plate.

The leg is often bruised from the injury, but by three weeks, usually looks and functions reasonably. Only a few patients go directly home within a week of surgery. We find most of our patients may require some time in rehabilitation, but generally recover around 8 weeks from injury, and have had a much easier recovery.