

Title	Greenstick Project
Organisation	Mitchells Plain District Hospital, Western Cape Province
Innovation	Commercial femoral traction splints are made from a canvas covered iron frame and require skin traction and padded bandage. The frame comprised of a ring that encircles the top of the thigh at the hip joint, and two sturdy rods that run down the length of the leg on either side, joining at the ankle or below the foot. The idea of the improvised femoral traction splint is to create the frame component using equipment which is available in most district level hospitals. It uses an axillary crutch, and collar and cuff padded sling material to recreate the iron frame. It is cost effective, reusable and easy to build from recyclable materials readily available in most hospitals. The components of the improvised femoral traction splint are combined together and work to overcome deforming forces around the fracture. The axillary crutch is positioned with the proximal end against the ischial tuberosity and collar and cuff is connected to skin traction. Increasing the tension of the skin traction produces a caudally directed force at the hip creating traction through the limb. The Orthopaedic team created an easy to follow video explaining how to assemble the equipment and apply the improvised traction splint.
Impact	Patient service delivery has improved by ensuring that no patients are mismanaged due to a shortage of commercial femoral traction splints. Patient safety is prioritised. The benefit of the improvised femoral traction splint includes a reduction in waiting time before a splint is applied. Additional benefits include decreased pulmonary complications, blood transfusions and neurovascular complications to the limb prior to surgery and increased comfort after suffering from a femur shaft fracture. The health system service benefits from a cost-saving alternative to the traditional commercially available femoral traction splint. The innovation has decreased the need to purchase femoral traction splints where resources can be reallocated.