



# **The use of the Ti-TaMED Spinal System in Fractures using Mobile Screws**

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## **Introduction**

The first cases using the TSS in Fractures using the permanently uniaxially articulating (mobile/dynamic) type screws were performed by a spine surgeon in Cape Town, South Africa, in 1998.

Please refer to Scifert et al. (Stability analysis of an enhanced load sharing posterior fixation device and its equivalent conventional device in a calf spine model. Spine 1999;**24**:2206-2213) in which it was demonstrated that **a dynamic pedicle screw construct is equal to a rigid pedicle screw construct in its ability to achieve spinal stability in a destabilised spine.**

**Please note that at least 4 mobile screws above and below the fracture are required.**

A number of surgeons have routinely used the Ti-TaMED Rigid Screws in fractures, and it is certainly mandatory to use these if only a 4-screw construct is used, or a significant anterior column defect exists.

## **Technique**

The technique used is routine placement of multiple mobile pedicle screws; a minimum of an 8 screw construct is required. The rod is prebent to the desired contour. If necessary the Approximator (Space Shuttle) is used to engage the rod in the screw-heads.

Ti-TaMED has screws from 4.5mm Diameter and 25mm in length to accommodate small thoracolumbar pedicles.

Hooks can be used if required to supplement the screws. Ti-TaMED provides a range of hooks – please refer to the Product Range in the brochure.

## **Cases:**

The following 3 cases illustrate the technique.

Case 1 only has a 3mo follow-up – the patient is being traced for a current follow-up X-ray.

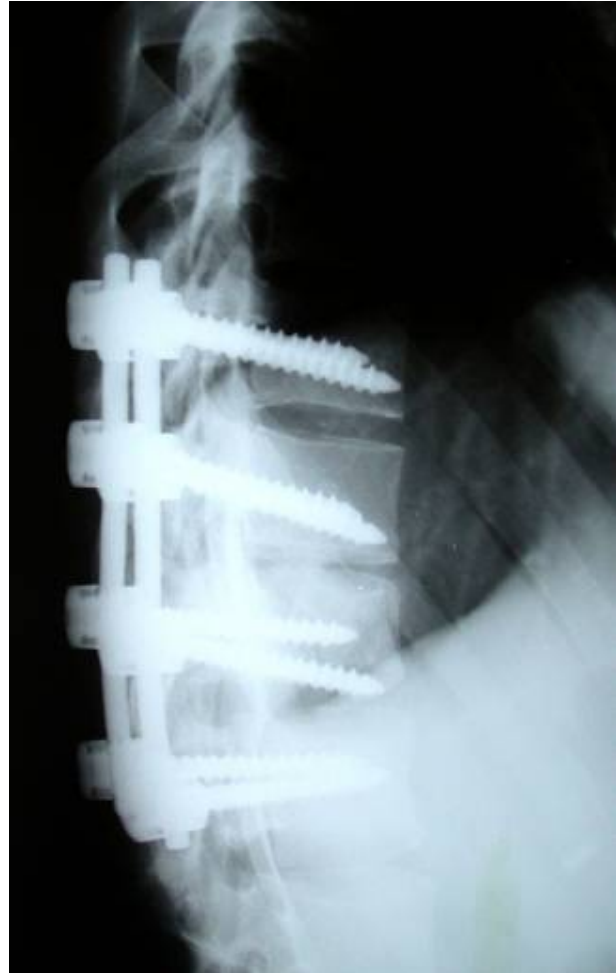
Case 2 has a 14mo follow-up.

Case 3 was instrumented long and fused short. The instrumentation is due to be removed soon.

Case 1 – 3mo follow-up X-ray (46)



Case 2 – 14mo follow-up X-ray (160)



Case 3 – 14mo follow-up X-ray (91159)

