

## Tibial Nailing in a Lateral Decubitus Position Facilitating Simultaneous Harvest of Scapular Flaps for Single-Stage Definitive Orthoplastic Management

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**Purpose:** Open tibial fractures can be challenging to manage because of the paucity of soft tissue available locally to cover any wound post debridement. They commonly require both skeletal stabilization and complex soft-tissue reconstruction. The optimal method of managing these patients is to perform a debridement on day one and then a combined “fix and flap” procedure no more than 72 hours later. The purpose of this project was to find a way to increase the use of scapula and parascapular flaps for orthoplastic reconstructive surgery. The scapula flap is an extremely reliable fasciocutaneous flap with a reliable, long and wide pedicle that facilitates rapid harvest and potentially low complication rates. Unfortunately with supine tibial nailing, it is not possible for plastic surgeons to raise this flap at the same time as fracture fixation due to access. Therefore the less reliable fasciocutaneous anterolateral thigh flap is used as an alternative.

**Methods:** In this series we present a group of patients who underwent suprapatella tibial nailing in a lateral position with the injured side both down and up, purely to facilitate ease of access to the back so scapula and para-scapula flap could be harvested.

**Results:** Four patients underwent lateral positioned tibial nailing. Two patients went on to unite, 1 is ongoing, and 1 patient was lost to follow-up.

**Conclusion:** Stabilizing open tibial fractures that require intramedullary tibial nailing and a free flap in a lateral position promotes orthoplastic teamwork. It facilitates the harvesting of a relatively straightforward flap in a time-efficient manner as both surgical teams can operate simultaneously. Increasing surgical efficiency, promoting orthoplastic teamwork, and utilizing a more reliable flap gives the best chance of recovery for these complex injuries.



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